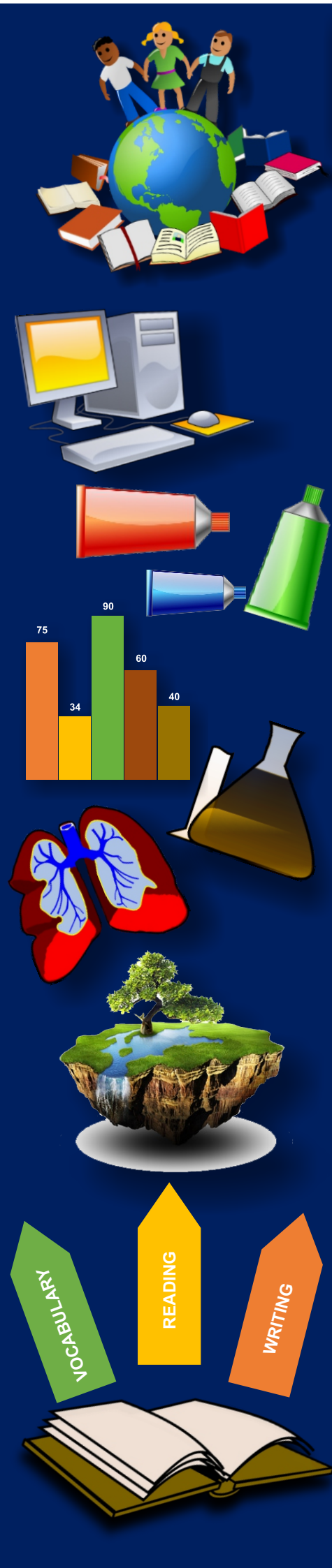


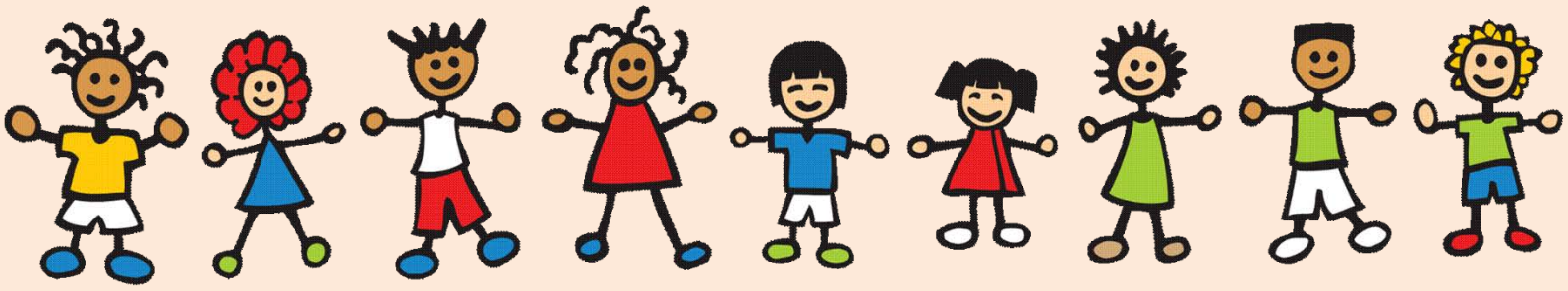
CURRICULUM

PRIMARY LEVEL (CLASSES I - V)



Research Development and Consultancy Division
Council for the Indian School Certificate Examinations
New Delhi





Curriculum for Primary Classes (I – V)



Research Development and Consultancy Division
Council for the Indian School Certificate Examinations
New Delhi

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Note: The Council reserves the right to make modifications in the syllabi as and when it deems necessary.

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Preface

The introduction of a Curriculum for Preschool to Class VIII is a pioneering endeavour undertaken by the Council to usher an exciting and dynamic dimension in the field of Education. The new Curriculum incorporates all elements of academic interests that cater to the challenging requirements of present day educational needs.

In order to allow for holistic and coherent planning and to provide greater flexibility and choice for schools and teachers, the Council has developed a Curriculum framework that aims at facilitating the teaching-learning process. It also serves to make learning purposeful and progressive while promoting the achievement of educational aims and objectives in a planned and positive manner. All efforts have been made to incorporate the latest trends in the field of Education, while ensuring that flexibility is provided to teachers to adapt the curriculum as per their requirements and contexts.

To prepare the future generation of learners to meet the challenges of an ever advancing knowledge-based society and a dynamically changing environment, it is imperative that children are equipped with a repertoire of skills and a positive attitude with a sensitized perspective to become successful citizens in a globally competitive society.

The Curriculum caters to a varied and diverse range of individual differences, intelligences and abilities and provides a plethora of opportunities to enjoy the learning experience through integration of generic skills, values and attitude in key learning areas.

Development of Curriculum is an ongoing process, subject to continuous change and revision, and it is hoped that this Curriculum will bring about a uniformity in the teaching learning process in Council affiliated Schools. To ensure the successful implementation of this Curriculum, it is imperative that Schools maximize their participation in this endeavour to achieve academic excellence. In this context, we invite schools to send their comments, suggestions or contributions on the Curriculum.

I take this opportunity to acknowledge the contribution of subject experts from leading International and National educational institutions and subject teachers from schools affiliated to the Council. The RDCD team of the Council deserves special mention for diligently and meticulously developing this Curriculum.

November 2016

**Gerry Arathoon
Chief Executive & Secretary**

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ACRONYMS

2D/3D	2 Dimensional/3 Dimensional
4GLS	Fourth Generation Programming Language
AD	Anno Domini
BC	Before Christ
BCE	Before Common Era
CD	Compact Disc
CE	Common Era
CPU	Central Processing Unit
CWD	Children with Disability
DBMS	Data Base Management System
DOC	Document
DVD	Digital Video Disc
EVS	Environmental Studies
GUI	Graphical User Interface
HCF	Highest Common Factor
HTML	Hypertext Markup Language
HCG	History, Civics & Geography
ICT	Information & Communications Technology
IPO	Input-Process-Output
ISP	Internet Service Provider
IWB	Interactive White Board

ACRONYMS

JPEG	Joint Photographic Experts Group
LCM	Lowest Common Factor
MODEM	Modulator-Demodulator
OS	Operating System
PNG	Portable Network Graphics
PPT	Power Point Presentation
RAM	Random Access Memory
SMPS	Switched Mode Power Supply
SMS	Short Message Service
SST	Social Studies
SUPW	Social Useful Productive Work and Community Service
TV	Television
URL	Uniform Resource Locator
XLS	Excel Spreadsheet
ZPD	Zone of Proximal Development

INTRODUCTION



Overview

The Council for the Indian School Certificate Examinations (CISCE) is committed to serving the nation's children, through high quality educational endeavours, empowering them to contribute towards a humane, just and pluralistic society, promoting introspective living, by creating exciting learning opportunities, with a commitment to excellence.

As a premier National Examination Board of the country, the Council conducts the Indian Certificate of Secondary Education Examination (ICSE – Class X), the Indian School Certificate Examination (ISC – Class XII) and the Certificate of Vocational Education Examination (CVE- Class XII). The Council has always strived to incorporate the very best in its prescribed syllabi at the secondary and senior secondary levels, with Council affiliated schools being the cornerstone in the achievement of many an educational milestone.

It is a well-known fact that a strong foundation in the lower classes plays a vital role in forging life-long learning competencies. The Curriculum developed by the Council for Preschool – Class VIII, has been designed so as to enable children to be well-prepared and future ready and to lead them in a progressive and phased manner to derive full advantage of the ICSE and the ISC syllabi. The curriculum has been planned and organized in a systematic and scientific manner,

Ethos of the Council

- Trust and Fair Play
- Minimum monitoring
- Allowing schools to evolve their own niche'
- Catering to the needs of the children
- Giving freedom to experiment with new ideas and practices – the school must continuously evolve
- Diversity and Plurality – the basic strength for evolution of ideas.
- Schools to motivate pupils towards the cultivation of:
Excellence - the Indian and Global experience;
Values - Spiritual and Cultural, to be the bedrock of the educational experience.
- Schools to have an 'Indian Ethos' with strong roots in the national psyche and be sensitive to emerging national aspirations.

keeping in view the prevalent trends and requirements in the field of education. The curriculum aims to provide a holistic and broad based education, taking into account all aspects of child behaviour, so as to equip them to meet the challenges in life and to develop their potential for lifelong learning. All efforts have been made to



incorporate components that are vitally and organically related to the child's life and his/ her immediate environment, interpreting for the child, its salient and significant features and permitting him/her to come in contact with some of its important activities.

Aims of the CISCE Curriculum

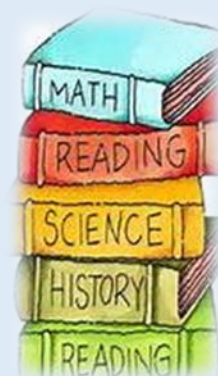
The curriculum aims to enable children to:

- become successful learners who enjoy learning;
- successfully apply core concepts learnt from various subjects;
- understand texts of different subjects so as to communicate knowledge and ideas in ways specific to the subject;
- articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts;
- use technology to access and provide information and to communicate with others;
- understand cross-curricular linkages- connect learning across subject areas;
- become confident individuals who are able to live safe, healthy and fulfilling lives;
- become responsible citizens who make a positive contribution to society;
- understand and apply knowledge to real life experiences;
- develop a sense of responsibility towards others;
- function successfully in the local and world community;
- respect diversity (in terms of religion, gender, regions, etc. and differences of opinions and beliefs);
- exhibit sensitivity towards environmental issues;
- learn to manage and utilise resources judiciously.

Process of Curriculum Development

The process of curriculum development was initiated in the year 2016, wherein the Council felt that there was a need to develop a comprehensive curriculum which had the potential to be contextualized by teachers as per their requirements. The development of the curriculum was a gradual process.

In order to gain a better understanding of the existing syllabi (Preschool – Class VIII) being followed in Council affiliated schools, a questionnaire was designed to elicit information from schools. The questionnaire sought information on the subjects being taught, the syllabus content for various subjects, innovative practices adopted, etc. The syllabi/ information received from schools was studied to understand the level at which various subjects are being transacted in different schools. This was a criterion that was constantly kept in mind while developing the syllabi for various subjects. A review was also done of the various National and International curricula, so as to understand the existing trends in school education.



Another key aspect kept in mind while developing the content was the knowledge and the level of competency that would be required by children at the completion of Class VIII so as to prepare them to take up studies at the ICSE level. Accordingly, 'backward designing' was done for all subjects, with the ICSE syllabus being the reference point.

In order to ensure that the curriculum is relevant and in alignment with what is being transacted in the schools, all efforts were made to ensure that subject teachers, teaching at the levels of Preschool - Class VIII are involved in the process of development of the curriculum. In-depth discussions were held with subject teachers to identify the requirements so that a need based and process oriented curriculum could be developed.

The curriculum was developed through collaborative efforts of subject teachers from schools affiliated to the Council, as well as educationists and experts from leading national and international educational institutions.

Salient features of the Curriculum

■ The Curriculum is Theme based

The present curriculum follows a 'theme based' approach in all the curricular area rather than a 'topical approach'. Thus, it does not proceed with a list of topics while transacting the curriculum from different subjects. The theme facilitates in addressing the issues related to the area under study in a holistic manner.

■ The Curriculum is Child Centred

The approach of the curriculum is 'child centred'. The identified concepts, skills, issues and concerns are age-appropriate so that the understanding of the child develops gradually from self to the immediate surrounding and further to the wider environment. For example, information related to the child and his/her family members may be given before introducing him/her to the neighborhood. Thus, the child moves from simple to complex, concrete to abstract, informal to formal concepts in a logical and phased manner.



■ Focus on using a wide range of learning experiences

Recognising the fact that there are different learning styles and individual children learn in different ways, the curriculum suggests a range of transactional processes varying from classroom discussions, case studies, field visits, surveys, hands-on experiences, experimentation, model making, poster making, slogan writing, etc. The curriculum aims to ensure that learning is a joyful experience for all children and that children are able to understand not only what they learn, but also how this learning is relevant in their lives, both present and future.

■ Sequential arrangement of learning experiences (Spiralling)

An attempt has been made in this curriculum to design a sequential arrangement of learning experiences, that will provide a spiral of cumulative learning. As they progress through classes, children will revisit certain topics or themes several times, but the depth and complexity of the theme or topic/concept will increase with each revisit. The new knowledge gained will be put in the context of the pre-existing knowledge which will serve as a base or the foundation.

The Curriculum encourages an Integrated approach

The curriculum encourages an integrated approach to teaching-learning, so as to enable children to comprehend learning experiences as a unified whole, to help them see meaningful linkages within and across various subject areas. Instead of moving from one topic/subject area to another, learning information in a disconnected, compartmentalised manner, the curriculum aims to help children make sense of life's experiences by helping them connect and correlate knowledge and experiences across various topics within as well as across subject areas.

Including *ALL* Children

The suggested activities/ experiments/ project work and experiences need to be adapted keeping in view the individual differences among children and their innate potentials, as well as the children with special needs. The teaching-learning material, equipment, games, puzzles need to be adapted so that '*ALL*' children can be equally involved in the transactional process. Teachers must do away with the approach of labelling children which can cause them to be singled out and ridiculed - rather, they should be taken into the ambit of the teaching and learning process with other children by devising and designing appropriate learning strategies. In this process, *ALL* children will learn from each other. In order to create inclusive classrooms, teachers must develop their knowledge and skills and an understanding of key strategies to achieving success. However, work done in this area needs to be referred to by teachers who also need to be oriented.



- * Value *ALL* Children
- * Respect individual differences
- * Provide equal opportunities
- * Meet learning needs of *ALL* Children

■ **The Curriculum provides scope for Contextualization**

Within the framework of the curriculum, flexibility has been provided to schools to adapt and contextualize as per their own unique requirements and the needs of the children. Hence, while the key concepts/ areas have been spelt out for each subject theme in the curriculum, it is expected that the teachers will adapt and use appropriate transactional processes, based on the resources available, the interests and aptitude levels of the children, as well as their geographical locations and the socio-economic and cultural contexts.

■ **The Curriculum follows a Social Constructivist approach**

This approach lays emphasis on learning by doing (I do, I understand much better). Also, children learn better while interacting/discussing with elders/others. Thus this approach provides opportunities for children to construct their knowledge rather than placing them as recipients of information in the transactional process. The knowledge gained by them is thus an outcome of the children's own activity. Engaging/involving children in exploring, observing, inventing the world around them helps in the process of construction of knowledge. In this curriculum, ample scope has been created for children to construct their knowledge through the social interaction (social constructivism).

■ **The Curriculum encourages development of Life Skills**

The curricular approach encourages development of skills as well as life skills by using age appropriate identified themes. These skills and life skills are not to be developed in isolation and are not 'add on' activities, rather, these are to be developed in an integrated and infused manner. The age appropriate skills and life skills have been mentioned in the curriculum as a reference point for teachers.



The Curriculum Document

The Curriculum document comprises of three parts, Part 1, Preschool Curriculum (covering Preschool 1 and Preschool 2), Part 2, Curriculum for Primary Classes (I-V) and Part 3, Curriculum for Upper Primary Classes (VI-VIII).

Part - 1	Part - 2	Part - 3
Preschool <ul style="list-style-type: none">• PS -I• PS -II	Primary <ul style="list-style-type: none">• English• Hindi• Mathematics• Environmental Studies (I & II)• Science (III - V)• Social Studies (III-V)• Computer Studies• Arts Education	Upper Primary <ul style="list-style-type: none">• English• Hindi• Mathematics• History & Civics• Geography• Physics• Chemistry• Biology• Computer Studies• Arts Education

Preschool Curriculum

Research and educational experiences underline the crucial importance of early years in the child's developmental experience. The rate of maturation and development and the pace of learning, is greater during these years than at any subsequent period in the child's life. The child's experience of learning in the early years, has a profound influence on later learning.



Young children enter preschool with a lot of curiosity, a sense of wonder and an eagerness to learn. They are attracted towards learning experiences that are engaging and pleasurable. Positive, concrete and hands-on experiences encourage young children to make choices, decisions, and explore their immediate environment. This helps them feel competent and confident.

The Preschool curriculum developed by CISCE, is meant for an early childhood setting where three to five-year-old children receive age and developmentally appropriate early education. The curriculum is divided into two sections, namely, Preschool-I and Preschool-II. The curriculum follows a holistic approach where practitioners support and scaffold children's learning through enriched play experiences. The pedagogical and transactional processes / strategies suggested in the curriculum include engaging and enjoyable play activities and learning experiences that awaken / ignite children's thinking processes and help build their confidence. The activities and play based experiences connect young children's fascination with learning in every domain so that they can enjoy, learn and make the most of their time in preschool.

Curriculum for Primary Level (Classes I-V)

At the primary stage, subject areas dealt with are English, Hindi (Second Language), Mathematics, Environmental Studies (EVS), Science, Social Studies, Computer Studies and Arts Education.

English has been treated as the first language and presented in a manner which takes into account multilingualism as a learning resource. Hindi is one of the Second Languages up to the elementary stage (I - VIII). The teaching-learning of languages would provide language as a tool to structure thought processes and to explore different realms of knowledge and imagination.

Mathematics focusses on reasoning and conceptual at every stage. The approach of this subject would facilitate hands on experiences and enable children to link Mathematics with day to day life experiences.

The Environmental Studies (EVS) curriculum (Classes I-II) is presented as an integrated curricular area following the thematic approach. The focus is on learning *about* the environment, *through* the

environment and *for* the environment. In Classes III-V, Science and Social Studies have been identified as core areas. At the primary level, a multi-disciplinary approach of Science and Social Studies learning has been followed and the concepts and concerns have been addressed through various themes, identified from different discipline in these areas.

Computer Studies, another core area of this stage has been developed with the focus on use of technology in Education.

Last but not the least, the curriculum for Arts Education at the primary level has been developed as a core area and follows a theme-based approach. The learning of this subject would provide scope for creative expression, appreciation and working together.

Curriculum for the Upper Primary Level (Classes VI-VIII)

The curriculum for the Upper Primary Stage covers English, Hindi (Second Language), Mathematics, Physics, Chemistry, Biology (under Science), History & Civics, Geography (under the subject History, Civics & Geography), Computer Studies and Arts Education.

Being the medium of institution (first language) the focus of English language learning at this stage is on oral and written expression, in a creative manner. This would help develop a sense of appreciation and critical vision for different forms of literature among children. The emphasis of Second Language learning at this stage is to hone the skills and develop an interest in the language and literature.

The focus of Mathematics learning at this stage is to consolidate and expand the learning through problem solving techniques.

Science at this stage branches out into Physics, Chemistry and Biology, so as to help children understand the issues and concerns of these areas. In Social Studies, two core areas, History & Civics and Geography, have been identified. Computer Studies curriculum focuses on acquisition of knowledge and skills in ICT so as to enable students to use common software applications and technology to access and utilize information.

The emphasis of Arts Education at this stage is on development of creative expression and expression through visual art forms. Arts Education follows a theme based approach in this curriculum, wherein efforts have been made to provide suggestions for integration of Arts Education with other curriculum areas.

Subjects to be studied at the Primary Level

Classes I-II	Classes III – V
<ul style="list-style-type: none">– English– Second Language*– Mathematics– Environmental Studies (EVS)– Computer Studies– Arts Education	<ul style="list-style-type: none">– English– Second Language*– Mathematics– Science– Social Studies– Computer Studies– Arts Education

Subjects to be studied at the Upper Primary Level

Classes VI - VIII
<ul style="list-style-type: none">– English– Second Language*– Mathematics– Science (Physics, Chemistry, Biology)– History, Civics & Geography (History & Civics, Geography)– Computer Studies– Arts Education

NOTE: In addition to the above, the following should also be taken up at the Primary and Upper Primary levels:

- Third Language** (at least Class V -VIII)
- Physical Education/ Yoga
- Education in Moral and Spiritual Values
- Socially Useful Productive Work and Community Service (SUPW) (VI -VIII)

***Note on the Second Language**

One/two of the Languages listed below to be offered:

Ao Naga, Assamese, Bengali, Dzongkha, Garo, Gujarati, Hindi, Kannada, Khasi, Kashmiri, Kokborok, Lepcha, Malayalam, Marathi, Manipuri, Mizo, Nepali, Odia, Punjabi, Sanskrit, Tamil, Tangkhul, Telugu, Tenydie, Urdu or any other official Indian language.

OR

One of the Foreign Languages provided the school has the required infrastructure and experienced teachers/ resource persons.

****Note on the Third Language**

The third language to be studied should be determined as under:

Subject to the State requirements, the schools are free to introduce suitable Third Languages, Indian or Foreign, for study from Class V to VIII provided the school has suitably qualified staff and necessary teaching aids that may be needed especially for the teaching of foreign languages as a Third Language.

However, students taking a particular Third Language, Indian or Foreign, cannot offer that Language as a Second Language.

Medium of Instruction

The medium of instruction in schools must be English. Special importance must be given to English (including oral and aural English, for which a high standard is required to be maintained

School Year

The beginning of the academic year in Schools affiliated to the Council shall be from the middle of March and the first week of June each year. However, the Hill schools may begin the academic year from February each year.

Academic Hours

Schools affiliated to the Council are required to put in, during an academic year, hours of instruction as follows:

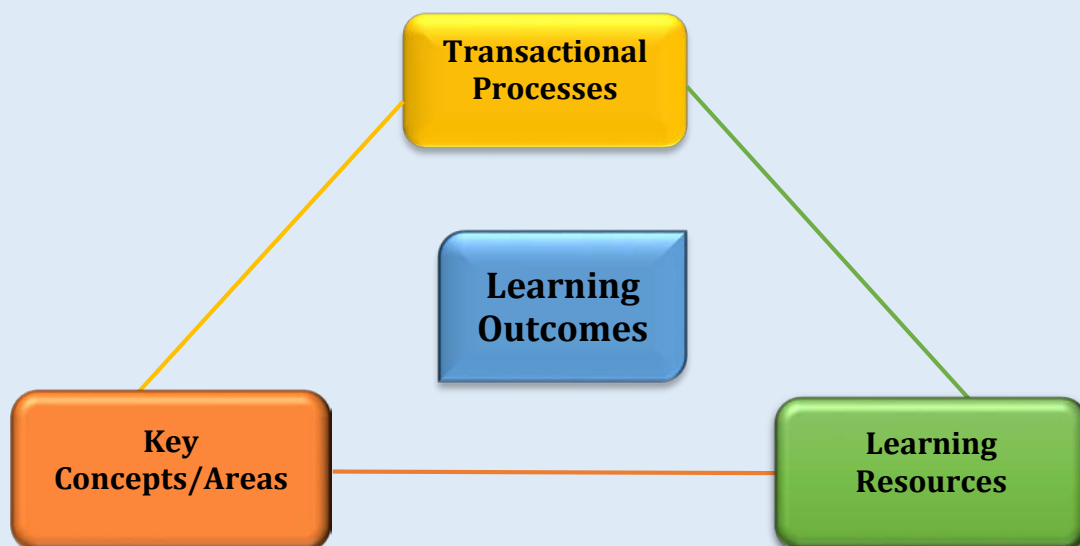
- ☛ For Classes I to V: 900 hours (each class)
- ☛ For Classes VI to VIII: 1000 hours (each class)

Textbooks

The Council does not prescribe textbooks for Preschool – Class VIII. Schools, therefore, are free to choose the books, which they find suitable for the purpose of competent teaching and efficient learning. The Council reserves the right to declare a particular book or books unsuitable for use in Schools affiliated to it.

Presentation of the Curriculum in the document

The subject areas in the curriculum have been organised in a matrix format. Each subject follows a theme based approach. For each theme, Learning Outcomes have been identified. These have been given in the beginning, after each theme description.



In order to attain these Learning Outcomes, necessary components of teaching learning processes i.e. Key Concepts/ Areas, Transactional Processes and Learning Resources have been discussed in the matrix for each theme as given below:

Key Concepts/ Areas	Suggested Transactional Processes	Suggested Learning Resources

Each theme has been dealt with as follows:

- ➔ **Introduction to the theme:** Each theme begins with a brief introduction about the key concepts to be covered under the theme.
- ➔ **Learning Outcomes:** For each theme/ area, Learning Outcomes have been identified, which cover various aspects of the child's behaviour, i.e. knowledge, comprehension, skills and dispositions (attitudes, values). These have been given in the beginning, after each theme description.

- ➔ **Key Concepts/ Areas:** The key concepts/areas have been identified theme-wise. The concepts may be repeated as children learn in a spiral manner and therefore, the extent and depth of content increases progressively as the grades/ classes go up.
- ➔ **Suggested Transactional Processes:** The suggested transactional processes are based on the various ways in which children learn and construct their knowledge. These include learning from individual/small/large group activities, learning through observation, discussion, experimentation, classification, project work, written and oral work, etc. The transactional processes are suggestive rather than being prescriptive and can be adapted according to the child's needs and contexts.
- ➔ **Suggested Learning Resources:** Suggested learning resources have been given for each theme/area. The learning resources range from learning materials (concrete objects/used by children, teaching aids/ demonstration material used by the teachers, children's own work - their drawing, worksheets) to activities which provide opportunities for interaction. The learning resources are also suggestive, and can be expanded/ adapted as per children's needs and contexts.
- ➔ **Suggestions for Integration:** Wherever applicable, suggestions for integration have been provided for different themes across various curricular areas. These have been given at the end of each theme. During the teaching learning process, individual teachers may discover may more ways of helping children to see linkages across various curricular areas.
- ➔ **Life Skills:** Life skills have been spelt out theme wise, wherever applicable. Strong emphasis is placed on developing the ability to question, to analyse, to investigate, to think critically, to solve problems, and to interact effectively with others.

Assessment and Evaluation

In school education, it is a common practice for the terms 'Assessment' and 'Evaluation' to be used interchangeably most of the time. It has also been observed that generally, teachers consider both processes to be external activities, which are to be performed separately after the completion of a lesson/topic/theme/unit in different subjects. Teachers are also seen to be engaged in compiling /recording assessment or evaluation data of children in their class at the cost of *opportunity time* for teaching- learning.

In this curriculum framework, assessment and evaluation are viewed as different processes that are both necessary, important and an integral part of the teaching learning process in all classrooms.

Assessment

Assessment during the teaching learning process is referred to as *Assessment for learning* or formative assessment. This provides teachers and children important information about children's learning gaps, strengths, weaknesses and difficulties so that timely action can be undertaken and corrective measures adopted by teachers. The value of assessment lies in ensuring that the process is continuous, comprehensive and not a one- time affair, so that it helps teachers plan better and in an ongoing manner for improving children's learning, performance and contributing to their holistic all round development. It also implies that the process should focus on collecting information on all aspects of the child's development and not be only subject or text-book based.

The purpose of assessment for learning is to:

- identify strengths, weaknesses /learning gaps and problems faced by children;
- provide timely, corrective teaching - learning inputs to children to ensure their better learning in the future;
- monitor the progress of each child with reference to his/her previous performance so as to develop every child to her/his full potential;
- improve/modify teaching learning practices and methods and use of materials by teachers based on each child's requirement and need;
- monitor children's learning and performance and
- provide data on children's learning to each child/ parents/ school.

Tools of Assessment

Assessment can be undertaken in multiple ways – it may include oral /written forms or teacher's observation or child centred classroom activities such as discussion /dialogue, project work, model making /posters/charts, experimentation, group and individual activities, games /quizzes and maintaining every child's portfolio, etc.

Evaluation

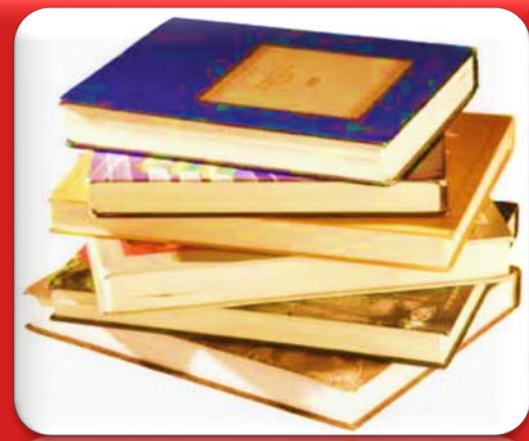
Evaluation is a process of collecting information- evidences regarding progress of the child. It focuses on the actual level attained by a child in a particular class after a certain period of time. It refers to judging the quality of a child's work on the basis of an established set of criteria (learning outcomes) and assigning value (i.e. grade or mark) to represent that quality. Evaluation is thus the process of finding out the extent to which a child has attained what he/she should have within a specified time period and against expected learning outcomes. It is therefore important that it is based on reliable and valid evidences so as to arrive at precise conclusions about children's achievement and performance.

The Council's Curriculum believes, advocates and focuses on each and every child's holistic development and not only his/her attainment/achievement in various subjects. Evaluation should

also not only be based on knowledge/ information based questions, but extend much beyond this. In the curriculum, evaluation is thus to be necessarily viewed as broader and more comprehensive taking into account different aspects of the child's total behaviour i.e. knowledge, skills, interests, attitudes and values. It should therefore not be based only on written work but also include different forms of assessment keeping in view how children learn. These could be apart from written tests /exams based on other tasks such as, project work, experimentation, oral work, aural work, etc. Evaluation should thus provide a more complete picture of a child's accomplishments and should also be based on multiple sources/evidences.

ENGLISH

ENGLISH



English language occupies a central place in the school curriculum because it is the medium for learning. Proficiency in the language is a pre-requisite for effective communication and knowledge acquisition. The learning of English transcends over a wide domain, spread across the curriculum of different subjects and plays an important and integral role in the domains of education, medicine, business and international relations, judiciary, industry, etc. It forms an indispensable and integral part of children's intellectual, social and emotional growth.

The content of the language curriculum should be broad enough to encompass the needs and interests of children to enable classroom activities to be linked to life even outside class. Socio-cultural contexts that encourage children participate actively in understanding and creating appropriate communicative practices should be promoted through development of linguistic skills. English as a language should be developed progressively through meaningful experiences rather than a mere drill or rote exercises.

Children should be facilitated to use language to express their feelings, ideas and later their opinions based on extensive readings and research. As they gradually become aware of the various purposes for which language is used and the diverse forms it can take, they learn to use language appropriate to context. They also develop an awareness of how language can be used in different formal and informal situations. As it forms the basis for thinking, communicating, learning and developing life skills, language is an essential tool to comprehend ideas and information, interact socially, inquire into areas of interest and study and a means to express thoughts and opinions in a clear and fluent manner.

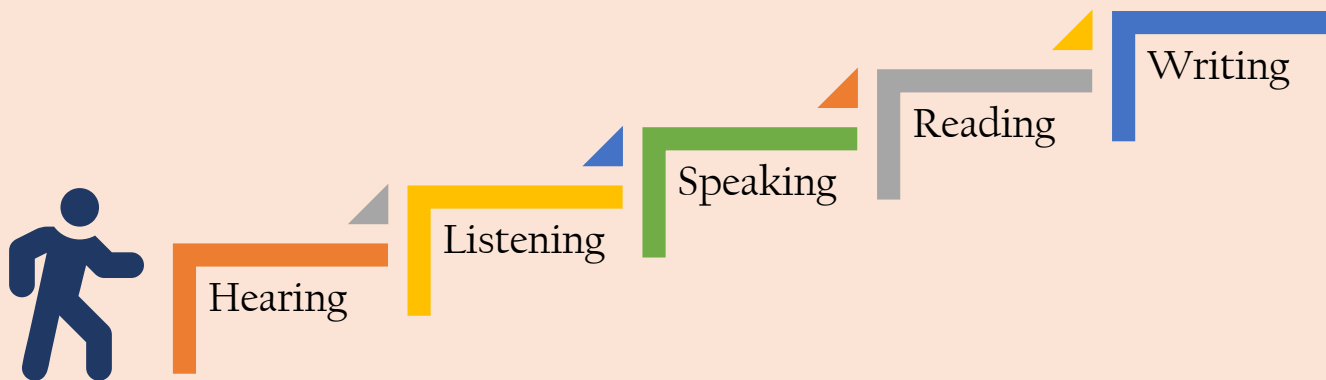
Learning to communicate with clarity and precision, orally, in writing, and through a variety of media, helps children understand the world around them. Importantly, through language, children can be sensitized to the physical and social environment, life skills and values.

Life skills such as communication skills, critical thinking, sharing, caring, self-awareness, concern for others should be an inbuilt component of an English Classroom. It is important to nurture these life skills among children by giving them ample opportunities. Texts and tasks in the classroom need to have scope for developing the desired life skills as per the topic/theme, which may be linked across the curriculum.

Since language development refers to the skills used in expressing and communicating ideas, it involves the four basic aspects of listening, speaking, reading and writing which would inculcate the elements of critical thinking among all children, including accommodating and adapting for the requirements of children with special needs.

At the primary level, children's process of learning normally moves from hearing to listening, to speech to reading and finally writing. A child listens to the language at home, imitates the sounds she/he hears and after some time produces that particular sound. Imitation of sound has no meaning for the child at first but she/he gradually learns that sounds bring comfort. Different vibrations

produce different results, and the child attaches meaning to them. This is when the child has moved from listening to speech. When in school she/he learns two other aspects of language i.e. reading and writing. With time, her/ his skills are refined in each of these aspects of language. The stress on the development of skills in a language programme is not to be viewed as a mechanical activity devoid of life but as the cornerstone of experience, appreciation and creative expression. Feeling, expression and its application all move together, so when a child acquires proficiency in reading and writing, the door to literary appreciation and creativity is opened.



The English language syllabus has thus been developed with the focus of developing language skills among children. The broad **objectives of language teaching and learning** are to develop:

- (a) **listening skill:** children listen to verbal and non-verbal cues in a non-linear way to comprehend and draw inferences.
- (b) **speaking skill:** children develop effective communication skills and are able to hold meaningful conversation in a variety of situations. They engage in discussions in a logical, analytical and creative manner.
- (c) **reading skill:** children develop the habit of independent reading and are able to construct meaning by drawing inferences and relating the text to their previous knowledge. They also develop the confidence of reading the text critically and asking questions while reading
- (d) **writing skill:** Children develop the confidence to express thoughts effortlessly and in an organized manner. They follow the process approach to writing that enables them to write for a variety of purposes and situations, ranging from informal to formal.

To realise the above objectives, children need to be provided with an environment that will facilitate their language learning. This could be in the form of textbooks, story books, magazines, newspapers, reports, articles, audio/visual aids, texts chosen by children, etc. It is important that the material that is provided is based on the interest, age and cognitive level of children. All modalities like visual, auditory and kinaesthetic can be used in pedagogical processes. Care must be taken by teachers to provide support to differently abled children in the classroom transactional processes. For example, material in Braille for the visually impaired and sign language devices for hearing impaired children i.e. adopting and adapting the curriculum as per the learning disabilities of children with special needs. Children need to be sensitised to their immediate environment, both physical and social, for example, the environment, gender justice, etc.

The skills that have been outlined and graded require textual material to be used at school, however, time spent at each level may vary. Teachers are urged to maintain the experiential background of children and ensure the availability of materials. The curriculum provides space for teachers to use their initiatives to supplement and substitute content/concepts according to their needs.

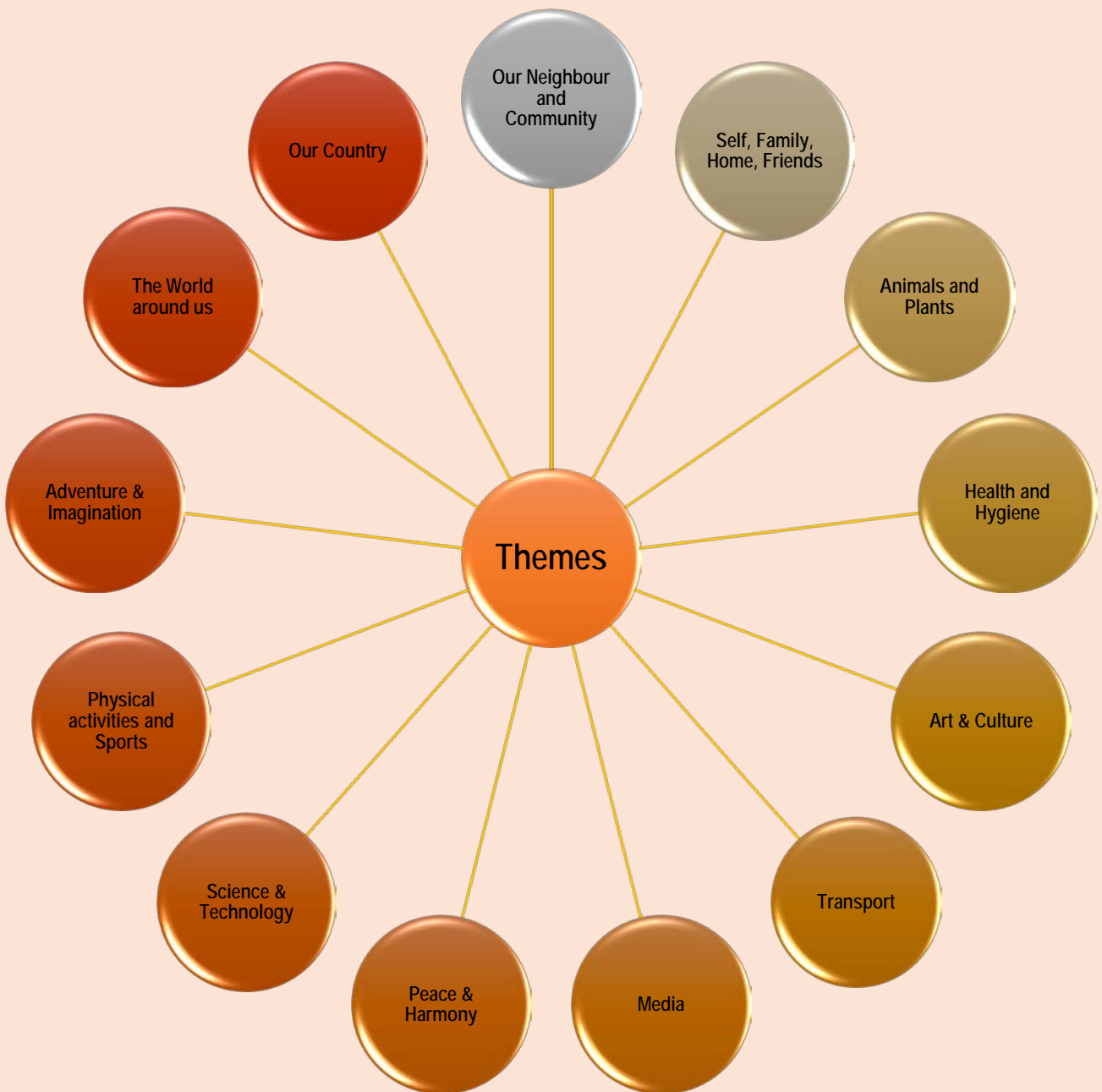
Guidelines for learning of English language

Content/ Themes

The language classroom is a place where contemporary concerns and issues can be included as the curriculum ranges from non-literary to literary texts, from local to global, covering a wide range of areas, like environmental issues, sustainable development, maintenance of resources, concern for animals and plants, human rights, etc. The selection of material may draw upon the following and additional themes in an integrated manner:

Self, family, home, friends, neighbourhood, environment, animals, plants, arts, sports, games, travel, media, science and technology, health and hygiene, peace etc.

Integrating Language Teaching with other Areas



Along with the above themes the choice of texts should also focus on myths, legends, and folktales in order to develop an appreciation for socio-cultural and linguistic heritage in children. Translated texts from Indian languages and the other languages of the world may be included in classroom teaching to encourage children to experience the rich diversity of language.

Generic Tasks suggested for inclusion as classroom procedures

Listening and Speaking

- Circle time
- Conversations on personal experience and relationships
- Picture talk
- Story telling
- Elocution/Recitation–Single and Group
- Role Play and Mime
- Dramatisation of poems/ prose passages
- Songs – to be used to teach rhyming words, rhythm and meter, poetry, speech and drama, vocabulary
- Word Games – Word building, Pictionary, Dumb charades, Alphabet cards
- Show and narrate a story
- Build and use a book corner
- Puzzles and crosswords

Reading and Writing

- Reading – aloud, silently and in a group
- Word Wall
- Vocabulary tree
- Completing a story
- Picture composition
- Recording a process (How to make a sandwich, cover a book)
- Book Talk
- Illustrations of characters from texts
- Simple comprehension - Seen and Unseen
- Spell Check
- Pictogram
- Word search
- Spot the differences
- Word Games
- Contribute to School magazine / Newsletter / Soft boards / Newspaper

Guiding Principles for English Language teaching

- Connecting learning to life in the outside world
- Integrating English with other subjects across the curriculum
- Adopting multilinguality of children as a learning resource
- Using meaningful contexts to develop language as a whole
- Making assessment for learning an integral part of the teaching- learning process
- Ensuring active participation of children by using a variety of activities and tasks.

Grammar and Vocabulary in Context

- Grammar games – e.g. naming objects, describing action
- Simple worksheets to consolidate grammatical concept in context
- Worksheets and activities on vocabulary in context
- Judicious use of internet as a resource.

Creative Writing

- Children should do (6 – 8) writing tasks in an academic year.
- The stimuli should be a picture, object/s or a set of words.
- Picture compositions must be done in all classes. The picture should be in colour and depict a human-interest story appropriate to the class and age level of children. Each child should have access to the picture.
- All writing activities must start with a class level conversation and words coming out of the discussion must be put on the blackboard (The words must come from the children).

Letter Writing (Class III to V only)

Introduce letter writing in Class III with emphasis on the content alone. Use of format not required for Class III. e.g. Letter to a friend inviting him/ her for a birthday party, a letter to a relative thanking him for a gift, etc.

The language development process needs to be flexible, as per individual requirements of children.

Listening and Speaking

Listening and Speaking are important skills at each stage as children get exposure to language use in various situations. They capture the correct pronunciation and the spoken idiom. They respond to classroom activities/tasks and are able to use language in their immediate environment.

Learning Outcomes:

Children will be able to:

- ☑ adopt classroom practices e.g., listening to others and taking turns speaking about the topics and texts for discussion;
- ☑ build on conversation by responding to comments;
- ☑ recite simple poems with appropriate actions;
- ☑ comprehend a text read aloud by asking and answering questions about key details;
- ☑ respond to simple questions based on stories;
- ☑ ask questions/make enquiries to clear confusion/ doubt;
- ☑ describe people, places, things as per their interpretation / context;
- ☑ express ideas and feelings clearly;
- ☑ use words and phrase acquired through conversation, reading and being read to, and responding to texts;
- ☑ produce complete sentences as appropriate to task and situation;
- ☑ give and follow simple two-step directions.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Poems for recitation on themes related to a child's life ➤ Stories for narration and speaking about events, characters etc. ➤ Picture reading ➤ Listen and talk about familiar places, persons, objects etc. ➤ Talk about self, family, friends etc. ➤ Take and give simple directions. ➤ Ask questions and respond as per situation/context. ➤ Contextual dictation e.g. on fruits, on animals etc. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning ➤ Creating learning situations to listen and talk about themselves, e.g. clothes they like to wear, their likes and dislikes, their surroundings, people, places, ➤ Discussing topics such as: Where do they like to go/play and why? What is their favourite colour? Why are friends important to them? ➤ Playing audio recordings of poems, stories, anecdotes, etc. and asking children to answer and raise questions. ➤ Drawing children's attention towards new words and using them in their context to peers and elders. ➤ Reciting poems on different themes and encouraging children to recite/sing with them with actions & expressions. 	<ul style="list-style-type: none"> ➤ Age appropriate selection of audio/video clips of poems/stories for children to listen and speak. ➤ Picture books, big books etc. to show children pictures and to encourage them to talk about it and connect it to their own life experiences. ➤ Realia/Flash cards/Posters /Charts/puppets/toys/ games etc. to stimulate language. ➤ Worksheets/activities/ tasks.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">➤ Giving simple directions (verbal and written short messages) for children to follow e.g. we will go out and then turn left, go straight and reach the auditorium to watch a movie.➤ Providing opportunities and context to speak with and listen to each other, e.g. My Family. My Friend. My Pet. My toy. What did I do last evening?➤ Giving dictation of some familiar words to enable the children to listen and write (listening is linked to speaking and writing) on paper / computer	

NOTE: Recitation should form an integral part of the school class-table and may be evaluated and included for Internal Assessment.

Reading and Writing

Reading and writing skills need to be developed keeping in view the interest of children. They need to be provided a variety of reading material and encouraged to write small sentences with an understanding.

Learning Outcomes:

Children will be able to:

- read with the help of pictures (print/tactile forms);
- engage in group and individual reading with an understanding and meaning;
- draw or add visual displays to descriptions wherever appropriate, to clarify ideas, thoughts, and feelings;
- identify who is telling the story at various points in the passage;
- read grade appropriate text with fluency and pauses at the appropriate places;
- write (using print and tactile letters), words and sentences;
- begin a sentence with a capital letter and end it with a full stop;
- draw and write on a familiar topic (e.g. “my teacher”, “my surrounding”, etc.);
- narrate with the help of pictures and charts a single event or several linked events, in the order in which they occurred and describe a reaction to what happened;
- respond to questions and suggestions from peers and add details to improve writing as required;
- recall information from experiences/gather information from provided sources to answer a question;
- take dictation - three and four letter words and small sentences;
- write stand-alone sentences of 8-10 lines on a given topic (e.g. “I love ice cream...”).

Reading and Writing		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Poems, stories on themes such as birds, animals, environment, self, family, friends etc. ➤ Picture reading. ➤ Drawing/ colouring. ➤ Write words, sentences on familiar topics e.g. trees, self, games. ➤ Use of capital and full stop. ➤ Dictation (contextual). 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning ➤ Providing contextual pictures for learners to read, interpret, comprehend and speak ➤ Providing short stories, small poems to read with the help of pictures. ➤ Creating learning situations to talk about an incident relating to a character in any story, including their personal experiences. ➤ Giving dictation on familiar words and small sentences e. g. picnic list. ➤ Sharing idea/s and asking children to add more information from their own experiences and write 5-6 sentences (e.g. “my teacher”, “my surrounding”, etc.) 	<ul style="list-style-type: none"> ➤ Age appropriate selection of poems/stories for children to read ➤ Picture books, big books, etc. to share and read. ➤ Flash cards/Posters/ /Charts/ puppets /toys/games/ etc. to read and comprehend. ➤ Worksheets /activities (tasks).

Grammar and Vocabulary in Context

Grammar and vocabulary are developed in context and in a phased manner. Children learn to use basic concepts which is reflected in their writing.

Learning Outcomes:

Children will be able to:

- make contextual use of naming, action, describing and position words with their opposites, as the case may be;
- get acquainted with the concepts of number (one and many) and gender (she/he);
- learn the use of 'a', 'an' and 'the';
- write all upper and lower case letters;
- use gender neutral common, proper and possessive nouns;
- use singular, plural nouns and opposites with matching verbs in basic sentences. (e.g. she hops/ we hop);
- use verbs in context to convey a sense of simple past, simple present and simple future;
- use frequently occurring adjectives, conjunctions, determiners, and prepositions;
- use capital letters for proper nouns (names of people, places, etc.);
- learn to use commas, full stops, question marks and exclamation marks appropriately;
- spell untaught words phonetically, drawing on phonetic awareness and spelling conventions;
- rearrange words in alphabetical order (first letter only, e.g. names of fruits, proper nouns, places, etc.);
- use vocabulary appropriate to their age level;
- spell: three and four letter words.

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Grammar items such as: nouns, adjectives, verbs, prepositions, articles, pronouns etc. ➤ Gender and number. ➤ Tenses: <ul style="list-style-type: none"> ☛ <i>Simple past, present and future</i> ➤ Vocabulary in context. ➤ Use of punctuation e.g. <ul style="list-style-type: none"> ☛ <i>Full stop, question mark, use of capital, comma</i> 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Providing visuals/ verbal clues to introduce use of grammatical elements at this level e.g. for number understanding 'let me in', 'let us in.' ➤ Providing worksheets with pictures, illustrations etc. to help learners use grammar in context e.g. this cat is small, that cat is big. ➤ Drawing attention of the children to the use of punctuation. 	<ul style="list-style-type: none"> ➤ Age appropriate worksheets /activities/tasks for grammar in and vocabulary in context. ➤ Pictures with activities. ➤ Charts/ posters / flash cards for doing activities. ➤ Online activities.

Listening and Speaking

Listening and Speaking are further reinforced by providing meaningful context and tasks. Children listen with comprehension and locate key ideas. They speak about given situations and are expressive.

Learning Outcomes:

Children will be able to:

- ☑ engage in role play, skit and conversation;
- ☑ narrate/retell / relate a story with appropriate facts and relevant, descriptive details, speak audibly in coherent sentences;
- ☑ contribute meaningfully to a small group or class discussion to develop a topic;
- ☑ maintain focus on the topic being discussed;
- ☑ identify the key ideas from a text that is read aloud;
- ☑ ask and answer questions about what a speaker says in order to clarify, comprehend and gather additional information on the topic discussed;
- ☑ narrate stories / recite poems aloud with expression;
- ☑ produce complete sentences when assigned to task and situation in order to provide requested detail or clarification;
- ☑ use vocabulary in context to ask questions and provide information.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Build on conversation skills such as <ul style="list-style-type: none"> ☛ <i>role play</i> ☛ <i>skits</i> ☛ <i>dialogue</i> ➤ Story telling <ul style="list-style-type: none"> ☛ <i>picture story</i> ☛ <i>retelling / relating a story</i> ☛ <i>describing facts and relevant details,</i> ☛ <i>speak audibly in coherent sentences.</i> ➤ Class discussions on age appropriate topics e.g. self, family, Surroundings etc. ➤ listen to a variety of texts such as poems, stories etc. and identify the main ideas. ➤ Ask/enquire and answers questions about the story, characters, situations etc. ➤ Poem recitation with 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning ➤ Creating learning situations to listen and talk about themselves, their immediate environment (people and places etc.) e.g. my school, my family /my neighbours ➤ Playing audio recordings of poems, stories, anecdotes, etc. and asking them to identify the main idea, describe the events of the story etc. ➤ Drawing their attention towards new words and their use in context. ➤ Reciting poems on different themes and encouraging learners to recite/sing with them with the desired actions & expressions. ➤ Providing opportunities and context to speak and listen to others for e.g.: daily routine ➤ Giving dictation of familiar words and simple sentences to enable the learner to listen and write (listening is linked to speaking and writing) 	<ul style="list-style-type: none"> ➤ Resources such as audio/video clips/cartoons for poems/stories e.g.: learners listen to a poem/ story/ dialogue and enact it. ➤ Read aloud from magazines, newspapers, picture books etc. and encourage them to talk about it and connect it to their own experiences. <p>OR</p> <ul style="list-style-type: none"> ➤ Realia/ Flashcards/ Posters/ Puppets/ Charts etc. to learn language.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
expression and actions. ➤ Develop vocabulary in context ➤ Dictation in context	NOTE: <i>The activities suggested above are not necessarily restricted to listening and speaking. As the language teacher is aware, all four language skills are inter-related and often overlap.</i>	

NOTE: Recitation should form an integral part of the school time -table and may be evaluated and included for Internal Assessment.

Reading and Writing

Children read seen texts/ pictures and interpret them accordingly. They further develop an interest in reading. Establish a link between thinking and writing.

Learning Outcomes:

Children will be able to:

- ☑ interpret a picture using simple questions;
- ☑ comprehend a passage, describes the characters/ feelings and expresses/say how their actions contribute to the sequence of the events;
- ☑ rearrange pictures in a sequential order;
- ☑ recall and retell orally and write stories /folktales /myths from diverse cultures that relate to the text and those related to their own development.;
- ☑ read aloud / silently with comprehension;
- ☑ write answers to comprehension questions on reading and understanding the text;
- ☑ take dictation - three and four letter words and sentences;
- ☑ write stand-alone sentences of 8-10 lines on a given topic (e.g. “a visit to the zoo”, “class picnic”, “my favourite food”, etc.);
- ☑ draw from and write about personal experiences or real life situations.

Reading and Writing		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Picture reading, rearrangement of pictures in sequence ➤ Texts for reading with comprehension for example describe: <ul style="list-style-type: none"> ☛ the characters ☛ actions ☛ sequence of events. ➤ Relate to the stories /folktales /myths from diverse cultures with their own experiences ➤ Read aloud / silently with comprehension. ➤ Dictation – for example three and four letter words and sentences ➤ Write stand-alone sentences of 8-10 lines on a given topic e.g. <ul style="list-style-type: none"> ☛ A Visit to the Zoo ☛ Class Picnic ☛ My Favourite Food etc. ➤ Write about personal experiences or real life situations. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning ➤ Introducing different kinds of texts such as stories, poems, for reading with comprehension. ➤ Encouraging learners to raise questions based on their reading habits. ➤ Facilitating reading from children’s magazines and children’s section of newspapers ➤ enriching reading habits through exposure to school library, reading corner. ➤ Providing visuals or pointing to illustrations in texts for sorting and sequencing. ➤ Encouraging children to prepare questions and draw conclusions on a comprehension passage. ➤ Brainstorming for ideas and vocabulary to be able to write / speak sentences related to the given topic / topics of their choice. 	<ul style="list-style-type: none"> ➤ Magazines, newspapers, picture books, story books etc. ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. ➤ Establish and use a Book /reading Corner

Grammar and Vocabulary in Context

Grammar and vocabulary are developed through contextual activities/tasks. Children use new words learnt that are reflected in their writing.

Learning Outcomes:

Children will be able to:

- recognise nouns as 'naming words', verbs as 'action words', adjectives as 'describing words', conjunctions (and & but) as 'joining words' and prepositions as 'position words' in context;
- learn the correct use of common and proper nouns, countable and uncountable nouns in context;
- apply the correct use of punctuation (including use of capital letters, commas and question marks);
- study the correct use of 'myself', 'ourselves', 'him/ herself', etc.;
- derive the meaning for a word from its context;
- use words and phrases and vocabulary appropriate to the age level;
- identify and use homophones, antonyms and synonyms etc. in context.

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Grammar in context <ul style="list-style-type: none"> • Nouns • Adjectives • Adverbs • Conjunctions • prepositions ▷ proper nouns, countable and uncountable nouns ▷ punctuation (including use of capital letters, commas and question marks). ▷ Personal pronouns e.g. <ul style="list-style-type: none"> • myself • ourselves • himself / herself etc. ▷ Derive the meaning for /of a word from its context. ▷ Vocabulary in context appropriate to the level. ▷ Use of homophones, antonyms and synonyms. 	<ul style="list-style-type: none"> ▷ Reviewing and building on previous learning. ▷ Providing visuals/ verbal clues to introduce use of grammatical elements at this level. ▷ Providing worksheets with pictures, illustrations etc. to help learners use grammar in context. e.g.: using pictures to teach position. ▷ Drawing attention of children to the correct use of punctuation through practice ▷ Creating worksheets and activities and tasks on various aspects of vocabulary. 	<ul style="list-style-type: none"> ▷ Age appropriate worksheets /activities/tasks for grammar in and vocabulary in context. ▷ Activities with Pictures ▷ Charts/ posters / flash cards for doing activities ▷ Online activities ▷ Regalia/ Flashcards/ Posters/ puppets/ Charts etc.

Listening and Speaking

Listening and speaking are enhanced by bigger chunks of language such as stories narratives and poems. Activities like role play etc. engage the children with the language.

Learning Outcomes:

Children will be able to:

- tell a story, or recount an experience with appropriate and relevant facts;
- give descriptive details, speaking clearly at an understandable pace;
- speak clearly in front of an audience using volume and pitch suited to the purpose and respond to questions asked;
- narrate stories / recite poems aloud with expression for enjoyment;
- use grammatically correct language and specific vocabulary to communicate ideas and supporting details;
- engage in drama/ role play activities;
- take dictation of short stories.

Listening and Speaking		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Picture stories ➤ Narrate stories on various themes with expressions and actions ➤ Narrate experiences with relevant facts, descriptive details. ➤ Recite poems aloud with the required expression. ➤ Drama/ role play activities based on poems, stories, incidents ➤ Dictation in content/short stories 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Encouraging children to participate in role play /dialogue and contribute to conversations. ➤ Creating opportunities for listening to a poem/ story/ dialogue and enacting it. ➤ Setting a cooperative, positive classroom tone for discussion. ➤ Providing opportunities for children to share information that is relevant and interesting to them (e.g., asks children to share ideas, in small groups, about items, situations and experiences based on values and focusing on diversity). ➤ Providing opportunities for children to retell the stories orally, using props such as puppets, costumes, story maps, and felt boards. ➤ Using illustrations in a picture book to unfold the story with children. ➤ Developing childrens' background knowledge (schema) and vocabulary 	<ul style="list-style-type: none"> ➤ Audio/video clips/cartoons for poems/stories ➤ magazines, newspapers, picture books etc. ➤ Realia/ Flashcards/ Posters/ puppets/ Models/ Charts etc.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
	<p>related to the topic of the text and real life experiences.</p> <ul style="list-style-type: none">➤ Periodically scheduling book talks, reading conferences, and literature circles, as appropriate for the physical, social, emotional and developmental needs of individual children or groups.➤ Giving dictation of some familiar words and simple sentences to enable children to listen and write (<i>listening is linked to speaking and writing</i>)➤ Setting aside time for extensive reading (reading for leisure /pleasure).	

NOTE: *The activities/tasks suggested above are not necessarily restricted to listening and speaking. As the language teacher is aware, all four language skills are inter-related and often overlap.*

Reading and Writing

Children read a text with fluency, interpret and raise critical questions. They write with sense of purpose that is drawn from personal experience.

Learning Outcomes:

Children will be able to:

- ✔ interpret a picture and raise critical thinking questions;
- ✔ read aloud appropriate level prose, poetry and other texts with fluency and expression;
- ✔ write a paragraph of approximately 100 words with one central idea that introduces a topic. makes use of linking words (e.g. 'because', 'and', 'also' etc.) to provide a sequence and a conclusion. topics could be personal, narrative or descriptive;
- ✔ draw from personal experiences or real life situations;
- ✔ write a simple letter (to a parent, friend, relative etc.).

Reading and Writing		
Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Picture reading with stimulating questions. ➤ Read aloud age appropriate prose and poetry with fluency and expression on themes. ➤ Paragraph writing of approximately 100 words with one central idea that introduces a topic. ➤ Use of linking words (e.g. 'because', 'and', 'also' etc.) to provide a sequence and conclusion. Topics could be personal narrative or descriptive. ➤ Draw from personal experiences or real life situations to express in writing. ➤ Write a simple letter (to a parent, friend, relative etc. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Supporting child's development as an independent reader with books that are consistent with developing her/his phonic knowledge. ➤ using films / documentaries to develop inference and critical skills. ➤ creating opportunities for children to ask questions about what they are reading. ➤ creating opportunities for recitation and performance. ➤ using drama to support writing. Inviting children to write in the role of real or imagined others. ➤ fostering talk amongst children to generate ideas, rehearse orally and to reflect on the process of writing. ➤ organizing of ideas-reading and reviewing. (e.g. using drama and role play, annotating text, teacher modelling, guided writing.) 	<ul style="list-style-type: none"> ➤ Picture reading books with chunks (group of words in language) ➤ Big books, Cartoons with audio or text. ➤ Self / teacher created materials. ➤ Magazines, newspapers ➤ Activities/tasks (<i>for recognizing words, associating letters and sounds with words</i>). ➤ Text types: Very short stories, articles, poems and songs, texts with visuals, etc. ➤ Age appropriate magazines, newspapers, picture books, story books etc. (<i>for reading and connect it to their own experiences</i>.) ➤ Realia/ Flashcards/ Posters/ Puppets/ Charts etc. (<i>to stimulate language</i>). ➤ Establish and use a Book /Reading Corner

Grammar and Vocabulary in Context

Use of vocabulary and grammar is supplemented with the introduction of Dictionaries. They distinguish between various uses of language functions.

Learning Outcomes:

Children will be able to:

- ☑ understand the concept of subject and predicate;
- ☑ learn to use collective nouns and material nouns;
- ☑ understand and apply the functions of nouns, pronouns, verbs, adjectives and adverbs in general and their use in a particular sentence;
- ☑ form and use regular and irregular and plural nouns, forms and uses simple tenses (past, present, future);
- ☑ learn the use of adjectives and their kinds.
- ☑ understand and use sequencing through an alphabetical order (first two letters of the words)
- ☑ distinguish between definite and indefinite articles and their appropriate use;
- ☑ use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
- ☑ use vocabulary in context appropriate to their age level.
- ☑ learn to use an apostrophe to show singular possession and know the difference between plurals and possessives.
- ☑ learn to use prefixes and suffixes.

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Subject and predicate. ➤ Collective nouns and material nouns. ➤ Functions of nouns, pronouns, verbs, adjectives and adverbs in general. ➤ Regular and irregular and plural nouns. ➤ Singular possession. Difference between plurals and possessives. ➤ Simple tenses (past, present, future). ➤ Sequencing through an alphabetical order (first two letters of the words) ➤ Definite and indefinite articles and their appropriate use. ➤ Use of dictionaries, glossaries both print and digital. ➤ Vocabulary in context appropriate to the age level e.g. prefixes and suffixes. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Providing visuals/ verbal clues to introduce use of grammatical elements at this level. ➤ Providing worksheets with pictures, illustrations etc. to help children use grammar in context. ➤ E.g.: using pictures to teach position. <i>The cat is sitting on the table.</i> ➤ Giving /Assigning meaningful exercises that allow / encourage children to practice grammar, vocabulary and specific language points. ➤ Providing authentic and real-world / practical / assignments/ tasks to make children aware of their usefulness. 	<ul style="list-style-type: none"> ➤ Self / teacher created materials e.g. worksheets, activities and tasks. ➤ Audio, video, print / text. ➤ Authentic tasks and activities of short duration (<i>These would bring in an engagement with</i> <ul style="list-style-type: none"> • words, • expressions in dialogue. • formula use • collections • word chunks • word / Languages games.) ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. (<i>to stimulate language.</i>)

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
▶ Dictation of language chunks.	▶ Giving dictation of language chunks. ▶ Generating ideas about a potential topic, using a variety of strategies and resources <i>(e.g., formulate and ask questions to identify personal experiences, prior knowledge, and information needs and to guide searches for information; brainstorm and record ideas on the topic)</i>	

Listening and Speaking

Children are involved in listening and speaking through various classroom activities that include debates, role plays and discussions.

Learning Outcomes:

Children will be able to:

- ☑ engage meaningfully in discussions with teacher/peers on a range of topics;
- ☑ respond to specific questions and make comments and elaborate further on the topic.
- ☑ report on a topic or text, in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes,
- ☑ tell a story, or recount an experience in a logical and coherent manner, speaking clearly and at an understandable pace.
- ☑ show enthusiasm listening to English poems/songs/riddles /tongue twisters etc.
- ☑ identify key situations, share ideas and express opinions.
- ☑ take dictation of a seen passage.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Range of topics for discussion e.g. cleanliness, road safety, computers, games etc. ➤ Develop a topic from a variety of themes in an organized manner, using appropriate facts and relevant, descriptive details to support the main ideas or themes. ➤ Tell stories, recite poems, or recount/ narrate an experience in a logical and coherent manner. ➤ Speak clearly at an understandable pace. ➤ Listen to English poems/songs/riddles /tongue twisters etc. and identify the key situations get ideas and express opinions. ➤ Listen in context to e.g. announcements etc. school and outside, speech etc. ➤ Take dictation of a seen passage. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ providing a topic and encouraging children to have a discussion on it. e.g.: my favourite book / TV programme/ why recycle/Go green etc. ➤ Reading aloud/ playing audio recordings of poems, narratives, anecdotes, etc. and asking them to identify the main ideas (E.g. listen to an autobiography read aloud and create your own.) ➤ Listening in contexts, (e.g. at the airport, assembly etc.) ➤ Introducing words specific to particular fields through a variety of listening activities such as sports, cookery, music life skills etc. ➤ Reciting poems on different themes and encouraging children to recite/sing along. 	<ul style="list-style-type: none"> ➤ Free online resources/audio/video clips/animated clips /poems/ narratives/autobiographies /biographies (5 Minutes to 20 Minutes. Can be separate or in series) ➤ Listening to Authentic themes / situations: ➤ Poetry, songs, stories, ➤ Group Discussion/ pair work ➤ Role play/dramatization. ➤ Posters/ Models/ Charts/advertisements etc.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">▶ Providing opportunities and context to speak on a specific topic and listen to others' point of view. (e.g. Health and hygiene/ self-care/ positive body image / Road safety)▶ Creating learning situations to listen to various announcements. Speech, conversation▶ Giving dictation of a connected passage.	

NOTE: *The examples given above are intended merely as guidelines. The teachers are welcome to be as innovative as the classroom situation allows.*

The individual needs of children with disabilities (CWD) ought to be considered and appropriate methodology and interventions adopted.

The activities suggested above are not necessarily restricted to listening and speaking. As the language teacher is aware, all four language skills are inter-related and often overlap.

Reading and Writing

Children read texts to identify and grasp the main idea for interpretation. They write paragraphs / letters on a variety of topics using a range of vocabulary.

Learning Outcomes:

Children will be able to:

- ☑ read texts with comprehension, locate details, identify/ locate the sequence of ideas and events, grasp the main idea in print and braille;
- ☑ relate ideas with their personal experiences including self-awareness;
- ☑ engage in reading beyond the text materials and enjoys reading;
- ☑ infer the meaning of unfamiliar words by reading the main context;
- ☑ use a dictionary / thesaurus (while using a computer) to look up the meaning of words;
- ☑ write at least two paragraphs of about 150 words at a more advanced level on any given topic;
- ☑ write narratives that recount a well-elaborated event or short sequence of events; that includes details to describe actions, thoughts, and feelings;
- ☑ organise and structure meaningful sentences in a sequential manner;
- ☑ use 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure;
- ☑ draw from and write about their personal experiences or real life situations;
- ☑ use words and phrases to the class appropriate level, including those that convey emotions, actions, etc.;
- ☑ write a letter to a parent, friend, relative etc.

Reading and Writing

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Seen and unseen texts on a variety of themes for extensive and intensive reading. ➤ Picture reading. ➤ Beyond the text reading for pleasure e.g. magazines, stories, poems, narratives etc. ➤ Use of dictionary both print and online. <ul style="list-style-type: none"> • Creative writing • Paragraph writing (150 words) • Personal experience • Story • Poem • Anecdote • Letter to a friend, relative etc. • (Informal letter) ➤ Organise and structure meaningful sentences in a 	<ul style="list-style-type: none"> ➤ Introducing different kinds of texts such as prose, poetry, play for reading with comprehension. ➤ Discussing / Explaining concepts such as rhyme, rhythm, simile in a poem. ➤ Providing additional material such as stories focusing on the needs and abilities of differently abled advertisements, notices, signboards, menus, posters etc. that go beyond the text. ➤ Facilitating reading of newspapers, magazines and children-chosen texts. ➤ Encouraging children to raise questions based on their reading habits. 	<ul style="list-style-type: none"> ➤ Pictures ➤ Big books, Cartoons with audio or text. ➤ Self / teacher created materials. ➤ Magazines, newspapers. ➤ Activities/tasks for relating ideas of the text with their lives. ➤ Text types: Very short stories, poems and songs, texts with visuals, etc. ➤ Age appropriate magazines, newspapers, picture books, story books etc. <i>(for reading and to connect it to their own experiences.)</i> ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. <i>(to stimulate language.)</i> ➤ Establish a class library/Book/Reading Corner

Reading and Writing

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<p>sequential manner.</p> <ul style="list-style-type: none">▶ Use of 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure.	<ul style="list-style-type: none">▶ Creating situations/context to write letters /Poems/ list/ narratives/ e-mail/ etc.▶ Encouraging children to follow the process approach of writing (brain storming, writing, reviewing, editing, rewriting).▶ Providing rubrics / checklists to revise the written material.	<ul style="list-style-type: none">▶ Locating from different sources reading material as per the interest (under supervision).

Grammar and Vocabulary in Context

Enrichment of vocabulary through introduction of a variety of idioms and phrases in context. Use of appropriate grammar in a range of written tasks.

Learning Outcomes:

Children will be able to:

- ☑ recognise and explain the meaning of common idioms, adages and proverbs;
- ☑ gain proficiency in the subject-verb agreement;
- ☑ use capital letters for appropriate words in titles, e.g. “the adventures of tom sawyer”, “stopping by the woods on a snowy evening”;
- ☑ learn the correct use of punctuations in dialogue;
- ☑ learn to use an apostrophe to show singular possession and know the difference between plurals and possessives;
- ☑ spell words correctly that are class appropriate, consulting references as and when required.

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Common idioms, adages and proverbs. ➤ Subject-verb agreement. ➤ Punctuation e.g. Capital letters for appropriate words in titles, e.g. “The Adventures of Tom Sawyer”, “Stopping by the Woods on a Snowy Evening”. ➤ Apostrophe to show singular possession and knows the difference between plurals and possessives. ➤ Age appropriate vocabulary in context. ➤ Referencing as required. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Providing examples of grammar in context to make children understand the various aspects of grammar. ➤ Creating worksheets for learners to use grammar in context. ➤ Providing audio - visual and verbal clues to reinforce the use of grammar and develop language skills. ➤ Creating activities/tasks to develop vocabulary in context. 	<ul style="list-style-type: none"> ➤ Self / teacher created materials e.g. worksheets, activities. ➤ Audio, video, print / text. ➤ Authentic tasks and activities of short duration. <i>(These will be used to lead to an engagement with</i> <ul style="list-style-type: none"> ☛ words, ☛ word chunks, ☛ formulaic use ☛ collocations ☛ expressions in dialogue.) ➤ Word / Languages games. ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. <i>(to stimulate language.)</i>

Listening and Speaking

Listen and critically examine the topic and share views in the class or a specific situation. While speaking, the emphasis is on appropriate use of tone, stress and intonation to convey meaning.

Learning Outcomes:

Children will be able to:

- ☑ engage effectively in sharing and explaining their ideas and viewpoints;
- ☑ ask and answer questions based on the concerned topic;
- ☑ interpret and analyse content;
- ☑ evaluate and draw conclusions using key details from the text;
- ☑ use parallel resource material to reinforce learning (e.g. use material from the internet to corroborate what is being taught in class);
- ☑ interpret the speaker's message (verbal and nonverbal);
- ☑ make personal connections with texts, comparing ideas and information;
- ☑ make appropriate gestures, eye contact with peers and teachers and exhibit clarity with pace;
- ☑ take dictation of an unseen passage.

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Listen and analyse ideas and viewpoints from content across the curriculum. ➤ Raise specific questions and draw conclusions. ➤ Interpret the speaker's message (verbal and nonverbal). ➤ Give opinions while speaking ➤ Debate, discussion, drama etc. ➤ Aspects of spoken language such as tone, intonation, body language, facial expression ➤ Dictation of an unseen passage 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Singing songs and rhymes ➤ Listening to stories in audio, video and print. ➤ Teacher narration and interaction. ➤ Introducing / Familiarizing (children) to a variety of food, clothes, custom, etc. ➤ Role play, dramatization, reading aloud, recitation of rhymes, poems. ➤ Telling and re-telling of stories, ➤ interpreting pictures, sketches, cartoons. ➤ Providing a range of materials such as unseen passages/newspaper/magazine/ audio video clips etc. for listening and encouraging children to explore ideas and opinions expressed. ➤ Encouraging children to raise questions and express opinions 	<ul style="list-style-type: none"> ➤ Simple projects ➤ Picture books and children's Literature. ➤ Songs, Poems and Rhymes. ➤ Stories. ➤ Audio / video programmes of 5 to 20 minutes duration. ➤ Online resources/audio/video clips/animated clips /poems/narratives/autobiographies /biographies [e.g.: a clip from Gulliver's Travels]. ➤ Articles, current affairs from magazines, newspapers, etc. (<i>focusing on drug menace and abuse, discrimination, stigmatization, myths and misconceptions</i>). ➤ Posters/ Models/ Charts/advertisements etc. ➤ Reading material in different areas. (<i>These will help in focusing on personalities to develop positive attitudes, values and life skills.</i>)

Listening and Speaking

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
	<p>on the passage read out or the clip shown.</p> <ul style="list-style-type: none"> ➤ Creating learning situations for children to infer, interpret and evaluate the content. ➤ Encouraging children to explore and speak on related material. ➤ Stressing on the need and importance of verbal and non-verbal clues in communication. ➤ Providing opportunities and context to speak on specific topics and listen to others' point of view by use of appropriate stress, intonation, tone. ➤ Giving dictation of unseen passages as per the level, context and level of the children. ➤ Organising debate, drama and discussions forums e.g. 'Save the girl child' <p><i>NOTE: The examples given above are intended merely as guidelines. The teachers are welcome to be as innovative as the classroom situation allows. The activities suggested above are not necessarily restricted to listening and speaking. As the language teacher is well aware, all four language skills are inter-related and often overlap.</i></p>	

NOTE: *The examples given above are intended merely as guidelines. The teachers are welcome to be as innovative as the classroom situation allows. The activities suggested above are not necessarily restricted to listening and speaking. As the language teacher is aware, all four language skills are inter-related and often overlap.*

Reading and Writing

Read seen and unseen text to analyse and evaluate the ideas to draw conclusions. Writing encompasses process approach that reflects use of phrases, idioms, metaphors etc.

Learning Outcomes:

Children will be able to:

- ☑ identify the main aspects of a text and explain how they are supported by key details;
- ☑ comprehend and identify the broad outline of the narrative;
- ☑ explain events, procedures, share ideas, or concepts including what happened and why, based on specific information in the text;
- ☑ link opinion and reasons using words, phrases, and clauses;
- ☑ infer the meaning of words and phrases as they are used in a text, including figurative language such as similes;
- ☑ use technology to gather information for project presentation;
- ☑ write at least two paragraphs of about 150 words at a more advanced level on any given topic;
- ☑ write narratives that recount a well-elaborated event or short sequence of events; include details to describe actions, thoughts, and feelings;
- ☑ organise and structure meaningful sentences in a sequential manner;
- ☑ use 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure;
- ☑ write short notes, write ups based on positive self-concept, understanding and respecting diversity and responsible behaviour from personal experiences or real life situations;
- ☑ use words and phrases at the grade appropriate level, including those that convey emotions, actions, etc.;
- ☑ follow process approach to writing - planning, writing, revising, editing, rewriting.

Reading and Writing

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Read seen and unseen texts on a variety of themes to comprehend, infer and interpret (intensive reading) ➤ Texts can be: <ul style="list-style-type: none"> ☛ <i>Prose</i> ☛ <i>Poetry</i> ☛ <i>Drama</i> ☛ <i>Diary</i> ☛ <i>Anecdote</i> ☛ <i>Jokes</i> ☛ <i>Riddles</i> ☛ <i>Auto/biographies</i> ☛ <i>Picture reading</i> ☛ <i>Article Report etc.</i> ➤ Reading for pleasure e.g. magazines, stories, poems, narratives from other subject areas. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Providing texts (different forms) comprehend, infer and evaluate. ➤ Encouraging children to evaluate, present own view points and connect to the world outside. ➤ Creating opportunities for reading across curriculum. ➤ Encouraging the children to read and appreciate the usage of language in the text. ➤ Creating situations for children to follow the process to write. ➤ Providing opportunities to children to learn new words to 	<ul style="list-style-type: none"> ➤ Pictures ➤ Books, Cartoons with audio or text. ➤ Self / teacher created materials. ➤ Magazines, newspapers ➤ Text types: Very short stories, poems and songs, texts with visuals, etc. Age appropriate magazines, newspapers, picture books, story books etc. <i>(for reading and connecting it to their own experiences.)</i> ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. <i>(to stimulate language.)</i> ➤ Establish a class library /Reading Corner.

Reading and Writing

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Use of dictionary both print and online. ➤ Creative writing ➤ Paragraph writing (150 words) ➤ Personal experience ➤ Story ➤ Poem ➤ Anecdote ➤ Letter to a friend, relative etc. ➤ Organise and structure meaningful sentences in a sequential manner. ➤ Use of 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate the passage of time and provide a sense of closure. ➤ Process approach to writing. ➤ Write Notice, message etc. 	<p>incorporate / include in their writing. E.g.: verbal, audio visual stimulus, brainstorming etc.</p> <ul style="list-style-type: none"> ➤ Familiarizing children with the basic process of writing. ➤ Providing opportunities to develop different styles/ types of writing e.g. <ul style="list-style-type: none"> ☛ <i>a short description of a person, thing, place or experience.</i> ☛ <i>notice,</i> ☛ <i>message for concerned individuals.</i> ☛ <i>short composition based on pictures.</i> ☛ <i>Giving dictation from a range of texts.</i> 	

Grammar and Vocabulary in Context

Children use age appropriate vocabulary. They understand the use of grammar, reflected through the use of simple and compound sentences with appropriate use of punctuations, prepositions etc.

Learning Outcomes:

Children will be able to:

- ☑ use vocabulary as per different registers of language;
- ☑ understand and use adverbs and their kinds;
- ☑ use conjunctions, prepositions, and interjections;
- ☑ learn the meaning and use of common idioms and proverbs;
- ☑ use plural possessives, adjective and adverb comparisons, apostrophes in contractions (basic examples – can't, won't etc.);
- ☑ introduce and reinforce the use of irregular verbs in their simple and continuous tense. (break, broke, broken – eat, ate, eaten);
- ☑ use correct spelling of commonly used words;
- ☑ learn to use direct and reported speech in dialogues;
- ☑ develop higher level of proficiency in the use of subject verb agreement.

Grammar and Vocabulary in Context

Suggested Areas/Content	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Adverbs, conjunctions, prepositions, and interjections. ➤ Common idioms and proverbs. ➤ Plural possessives, adjective and adverb comparisons, apostrophes in contractions ➤ Irregular verbs in their simple and continuous tense. ➤ Vocabulary in context as per the register for e.g. cookery, yoga, sports etc. ➤ Direct and reported speech in dialogues. ➤ Subject verb agreement. 	<ul style="list-style-type: none"> ➤ Reviewing and building on previous learning. ➤ Providing examples of grammar in context to make children understand various aspects of grammar e.g. (basic examples of possessive pronouns – can't, won't etc.). ➤ Creating and using worksheets /tasks for children to use grammar in context e.g. (Break, broke, broken – eat, ate, eaten) ➤ Providing audio - visual and verbal clues to reinforce the use of grammar and develop language skills. ➤ Creating opportunities for use of idioms, phrases and vocabulary in context e.g. use of phrases: look: look down, look up. Look down upon, look into etc. 	<ul style="list-style-type: none"> ➤ Self / teacher created materials e.g. worksheets, activities/tasks on grammar in context. ➤ Audio, video, print /text (tactile form) ➤ Authentic tasks and activities of short duration which would bring in an engagement with <ul style="list-style-type: none"> ☛ words, ☛ word chunks, ☛ formulaic use ☛ collocations ☛ expressions in dialogue. ☛ Word / Languages games. ➤ Vocabulary in context ➤ Realia/ Flashcards/ Posters/ puppets/ Charts etc. (to <i>stimulate language.</i>)

ENGLISH LITERATURE

Literature encompasses both literary and non-literary writings. Literary writing is an expression of life through the medium of language that is aesthetically pleasing. Literature makes us think about ourselves and our society, allows us to enjoy language and beauty. It helps us to appreciate life in its myriad colours along with language learning. Children get exposure to rich use of language through carefully structured sentences and words. Different forms of literature such as prose, poetry, and drama use rhyme, rhythm, alliteration, irony, dialogue and a number of other devices that help develop appreciation and language. These forms of literature introduce children to a range of writings such as story, bio/autobiography, letter, poetic drama, different genres of poetry etc. In literary writing, imagination plays the most important role that would help develop creative expression, sensitization to local and global issues. Non-literary texts such as reports, articles etc. provide academic information thereby enriching the repertoire of children and introduce them to different registers of language.

Suggested Reading List

Classes I & II

- The Ladybird Read Aloud Series
- Aesop's Fables
- Panchatantra Tales/ Karadi Tales
- Jataka Tales
- Adventures of Pinocchio
- The Tale of Peter Rabbit – Beatrix Potter
- Noddy Stories (with plenty of illustrations)
- Grandfather Gandhi – Arun Gandhi
- Stories such as Fantastic Mr. Fox
- Horrid Henry – Francesca Simon
- The Sheep – Pig : Dick King Smith

Class III

- Stories by Ruskin Bond e.g. The Blue Umbrella, Grandfather's Private Zoo
- Finn Family Moomintroll – Tove Janssen
- The Wizard of Oz – L. Frank Baum
- The Borrowers by Mary Norton
- The Water Babies – Charles Kingsley
- Charlotte's Web – E.B. White
- The Wind in the Willows – Kenneth Graham
- Roald Dahl's Children's Books (e.g. The Witches, Matilda etc.)
- Heidi – Johanna Spyri
- Daddy-Long-Legs – Jean Webster
- Star stuff – Carl Sagan – Stephanie Suss Rison
- Graphic novels: Amar Chitra Katha (To explore the world of historical and Mythological stories)
- Truckers: The First Book of the Nomoes – Terry Pratchett

Class IV

- ↳ Ruskin Bond's Children's Books
- ↳ Feluda Stories – Satyajit Ray
- ↳ Black Beauty – Anna Sewell
- ↳ Alice's Adventures in Wonderland & Through the Looking Glass – Lewis Carroll
- ↳ The Narnia Books – C.S. Lewis
- ↳ The Adventures of Robin hood
- ↳ Harry Potter Books by J.K. Rowling
- ↳ Astrid Lindgren books (PippiLongstocking, Ronia the Robber's daughter etc)
- ↳ A.A. Milne (Winnie-the Pooh Books, Collections of poems for children)
- ↳ The Railway Children – Edith Nesbit
- ↳ Roald Dahl's Children's Books- (James and the Giant Peach, Charlie and the Chocolate Factory etc.)
- ↳ Black Beauty- Anna Sewell
- ↳ On a Beam of Light – Jennifer Berne (Story of Albert Einstein)
- ↳ Who was Helen Keller? – Gare Thompson
- ↳ Graphic novels: Tin Tin series
- ↳ Graphic novels: Amar Chitra Katha (To explore the world of historical and Mythological stories)

Class V

- ↳ Rabindranath Tagore's stories/poems such as Kabuliwala
- ↳ Ruskin Bond Omnibus/ Stories for Children
- ↳ Gulliver's Travels – Swift (Abridged)
- ↳ Peter and Wendy (Peter Pan) – J. M. Barrie
- ↳ Adventures of Don Quixote (Abridged) – Miguel D Cervantes
- ↳ A Little Princess/ The Secret Garden – Frances Hodgson Bennett
- ↳ Little Women – Louisa M. Alcott (Abridged)
- ↳ Treasure Island – RL Stevenson
- ↳ The call of the Wild – Jack London
- ↳ Oliver Twist – Charles Dickens (Abridged)
- ↳ David Copperfield – Charles Dickens (Abridged)
- ↳ Robinson Crusoe – Daniel Defoe
- ↳ The Three Musketeers – Alexandre Dumas
- ↳ Graphic novels/ comics: Tin Tin
- ↳ Graphic novels: Amar Chitra Katha (To explore the world of historical and Mythological stories)
- ↳ Auto/biographies of great men such as Gandhi Ji, A.P.J. Abdul Kalam, Jawaharlal Nehru, Nelson Mandela
- ↳ The diary of Anne Frank/Zalata

HINDI

हिंदी



प्रारंभिक स्तर पर हिंदी भाषा अधिगम (द्वितीय भाषा)

किसी भी शिक्षा व्यवस्था में भाषा सीखने का महत्वपूर्ण स्थान होता है। विभिन्न विषयों के सार्थक अधिगम के साथ-साथ बच्चों के संवेगात्मक, संज्ञानात्मक और सामाजिक विकास के लिए भाषा बहुत महत्वपूर्ण होती है। भाषा की शिक्षा बच्चों में मूल्यों का विकास करती है और उनकी स्वाभाविक सृजनात्मकता एवं कल्पना का पोषण करती है। भाषा विकास से बच्चों में स्वतंत्र चिंतन, मत प्रकाशन और घटनाओं के तार्किक विश्लेषण की योग्यता उत्पन्न होती है। भाषा किसी भी बच्चे के पास, किसी भी समय पर, ज्ञान का सबसे समृद्ध स्रोत भी होती है।

भारत एक बहुभाषी देश है जिसमें बहुत-सी क्षेत्रीय भाषाएँ रची-बसी है। यँ तो भारत की सभी भाषाएँ समान रूप से महत्वपूर्ण हैं और देश के सभी नागरिकों को उनका सम्मान करना चाहिए, किंतु हिंदी की स्थिति सर्वथा भिन्न है। हिंदी को भारतीय संविधान के अनुसार भारत संघ की राजभाषा का दर्जा दिया गया है। यही नहीं, जनसंचार के माध्यमों रेडियो, टेलीविजन, समाचार पत्र, सिनेमा, प्रौद्योगिकी आदि द्वारा प्रचार-प्रसार से आज हिंदी बड़ी तीव्र गति से संपर्क भाषा के रूप में विकसित हो रही है और देश की सार्वजनीन भाषा बनती जा रही है, अतः प्राथमिक स्तर पर अंग्रेजी भाषा या क्षेत्रीय भाषा के प्रथम भाषा के रूप में शिक्षण दिए जाने के साथ-साथ हिंदी भाषा का द्वितीय भाषा के रूप में सिखाना महती आवश्यकता बन गया है। कक्षा एक से ही द्वितीय भाषा के रूप में हिंदी शिक्षण अधिगम प्रारंभ किया जाए ताकि पूरे भारत में परस्पर संवाद और संचार के रास्ते खुलें।

हिंदी (द्वितीय भाषा) शिक्षण अधिगम के उद्देश्य

हम रोजमर्रा के अनुभव से जानते हैं कि अधिकांश बच्चे विद्यालयी शिक्षा प्रारंभ होने से पहले ही भाषा की जटिलताओं और नियमों को आत्मसात् कर पूर्ण भाषिक क्षमता रखते हैं। भिन्न प्रतिभा वाले बच्चे जो बोल नहीं पाते, वे भी अपनी अभिव्यक्ति के लिए उतने ही जटिल वैकल्पिक संकेतों और प्रतीकों का विकास कर लेते हैं। बच्चों की इस सहजात भाषिक क्षमता तथा परिवार और आस-पास के लोगों से अंतः क्रिया से उपजे उनके अनुभवों को दृष्टि में रखते हुए प्राथमिक स्तर पर हिंदी शिक्षण अधिगम के उद्देश्य तय किए गए हैं। मातृभाषा या प्रथम भाषा के रूप में हिंदी से अलग भाषा को पढ़ने वाला बच्चा जब दूसरी भाषा के रूप में हिंदी का चुनाव करता है तो उसके पास अभिव्यक्ति का एक दृढ़ आधार पहले से ही मौजूद होता है। वह पहले से ही बिना किसी झिझक के सहज भाव से अपनी बात, अपने अनुभव, भावनाएँ, इच्छाएँ प्रकट करता है।

कक्षा 1 – 2

इस स्तर पर हिंदी शिक्षण अधिगम के उद्देश्य हैं -

- परिवेश में उपलब्ध संदर्भों, चित्र और लिखित सामग्री से परिचित होना।
- घर की भाषा और विद्यालय की भाषा में संबंध बनाते हुए उसे विस्तार दे पाना और अपने विचार और अनुभव बताने को उत्सुक होना।
- लिखित मुद्रित सामग्री को पहचानना, पढ़ना लिखना-सीखना।
- लिपि चिह्नों को देखकर और उनकी ध्वनियों को सुनकर, समझकर पढ़ना लिखना-सीखना।
- अपनी बात बोलकर अथवा चित्र बनाकर।

कक्षा 3 – 5

इस स्तर पर हिंदी शिक्षण के उद्देश्य हैं -

- विषय-सामग्री के माध्यम से नए शब्द जानना और उनके अर्थ सीखना।
- लेखन की विविध विधाओं से परिचित होना।
- दूसरे के विचारों को सुनकर समझना और प्रतिक्रिया व्यक्त करना।
- पठन के द्वारा आनंद लेना और ज्ञान का सृजन करना।
- मनपसंद विषय पर लिख पाना।
- दिए गए विषयों पर लिख पाना।
- भाषा के सौंदर्य की सराहना करने की योग्यता का विकास करना।
- उत्साही पाठक और सृजनशील लेखन की दिशा की ओर बढ़ना।

हिंदी भाषा के विषय / क्षेत्र

यह पाठ्य चर्चा हिंदी भाषा सीखने-सिखाने के 'समग्र भाषा पद्धति' के दृष्टिकोण पर आधारित है। यह पाठ्य चर्चा अनुशांसा करती है कि हिंदी शिक्षण अधिगम का दायरा इतना विस्तृत, व्यापक एवं वैविध्यपूर्ण हो कि बच्चे हिंदी के व्यापक और विविध स्वरूप के प्रति गहरी समझ बना सकें।

हिंदी शिक्षण अधिगम केवल भाषा की कक्षा तक ही सीमित नहीं होता। किसी भी विषय को सीखने का मतलब है उसकी अवधारणाओं को सीखना, उसकी शब्दावली को सीखना, उसके बारे में आलोचनात्मक ढंग से चर्चा करना और उसके बारे में लिखना। अतः हिंदी शिक्षण अधिगम एकांगी न हो अपितु अन्य पाठ्य चर्चा विषयों से सह संबंध बनाते हुए भाषा का विकास करने वाला हो। इसके लिए बच्चे भिन्न-भिन्न विषयों की पुस्तकों का अध्ययन करें।

हिंदी कक्षा में समसामयिक विषयों, मुद्दों व सरोकारों जैसे पर्यावरणीय चिंता, संसाधनों का संरक्षण, प्राणी जगत व वनस्पति जगत की सुरक्षा व संरक्षण, मानव अधिकार आदि को पाठ्यचर्चा में सम्मिलित किया जाना आवश्यक है। घर-परिवार, मित्र, पड़ोसी, पर्यावरण, पशु-पक्षी, पेड़-पौधे, कलाएँ, खेल, त्योहार आदि कुछ सुझावित विषय हैं जिनसे संबंधित पठन सामग्री उपलब्ध कराई जा सकती है। पाठ्य सामग्री में हिंदी से इतर भाषाओं की हिंदी में अनूदित रचनाओं का भी समावेश हो जिससे बच्चों को अनुवाद की दुनिया में पाँव पसारती हिंदी के स्वरूप का रसास्वादन करवाया जा सके। पाठ्य सामग्री बच्चों के मानसिक स्तर रुचियों और अनुभवों के अनुकूल होनी आवश्यक है। इसके अतिरिक्त लोककथाएँ, काल्पनिक व पौराणिक कथाएँ, परी कथाएँ भी पाठ्य सामग्री में समाविष्ट हों ताकि बच्चे देश की सामाजिक – सांस्कृतिक व भाषिक विरासत का आनंद ले सकें।

अन्य विषयों के साथ भाषा शिक्षण का समन्वय



मूल्य और जीवन कौशल

- हिंदी शिक्षण में वे तत्व अवश्य निहित होने चाहिए जो आवश्यक मूल्यों का पूर्ण रूप से संचार करें। मूल्यों की शिक्षा किसी विषय के रूप में पढ़ाकर या उपदेश देकर नहीं दी जा सकती। बल्कि पठन सामग्री और कक्षा के क्रियाकलाप इस प्रकार नियोजित होने चाहिए कि सच्चाई, ईमानदारी, संवेदनशीलता, सहायता, सहयोग, कल्याण भावना, सेवा, कार्य ही पूजा है जैसे मूल्य निष्पादित हो सकें। उपयुक्त विषयों, कथानकों और जीवनियों पर आधारित सांस्कृतिक कार्यक्रम और नाटकों का आयोजन किया जाए। मानव जाति के साथ-साथ अन्य प्राणियों और प्रकृति की सेवा का दृष्टिकोण विकसित हो जिसके लिए सभी शिक्षकों को अपने व्यवहार से ही आदर्श प्रस्तुत करना होगा।
- शिक्षा का वास्तविक उद्देश्य बच्चों को जीवन की चुनौतियों का सामना करने के लिए तैयार करना है। इसके लिए जरूरी है कि शिक्षा विभिन्न जीवन कौशलों से जुड़ी हो। जीवन कौशल जैसे- समस्या निवारण, आलोचनात्मक सोच, संप्रेषण, आत्म चेतना, तनाव से विचलित न होना, निर्णय लेना और सहानुभूति आदि हैं सफल जीवन जीने तथा एक जिम्मेदार नागरिक बनने के लिए बहुत ही महत्वपूर्ण भाषिक खेलों, गतिविधियों और क्रिया-कलापों के द्वारा बच्चों को जीवन कौशलों को विकसित करने का अवसर मिलता है।

शिक्षण अधिगम प्रक्रिया

द्वितीय भाषा के रूप में पढ़ाई जा रही हिंदी भाषा का स्तर पढ़ने और पढ़ाने दोनों ही दृष्टियों से मातृ भाषा सीखने की तुलना में कुछ धीमी गति से चलेगा। यह गति धीरे-धीरे बढ़ सके, इसके लिए शिक्षकों को धैर्यपूर्वक शिक्षण अधिगम प्रक्रिया के कार्यक्रम को नियोजित करना होगा।

- किसी भी द्वितीय भाषा में निपुणता प्राप्त करने-कराने के लिए आवश्यक है कि बच्चों की सहजात भाषिक क्षमता तथा उनके अनुभवों का भरपूर उपयोग किया जाए। बच्चों को स्वतंत्र अभिव्यक्ति के अधिक-से-अधिक अवसर दिए जाएँ। मौखिक भाषिक अभ्यास के लिए परस्पर बातचीत, कहानी सुनना- सुनाना, घटना वर्णन, चित्र वर्णन, संवाद, वाद-विवाद, अभिनय, भाषण, आशुभाषण, कविता पाठ और अंत्याक्षरी जैसी गतिविधियों का सहारा लिया जाए।
- निवेश समृद्ध संप्रेषण का वातावरण भाषा अधिगम की आवश्यक शर्त है। निवेश के अंतर्गत आते हैं – पाठ्य पुस्तकें, बच्चों द्वारा चुने गए पाठ और कक्षा पुस्तकालय जिसमें अनेक विधाओं के लिए जगह हो, मुद्रित सामग्री, मीडिया सामग्री (पत्र-पत्रिकाएँ, समाचार पत्रों के स्तंभ, रेडियो, ऑडियो कैसेट और प्रामाणिक सामग्री)।
- वृत्तचित्रों और फ़ीचर फ़िल्मों को भाषा सीखने की सामग्री के तौर पर प्रयोग करने की आवश्यकता है। इनके माध्यम से भाषा के प्रयोग की विशिष्टता की पहचान कराई जा सकती है और अलग-अलग हिंदी की छटा दिखाई जा सकती है।
- भाषा व्यवहार से सीखी जाती है। शिक्षक स्वयं शब्दकोश, साहित्यकोश और संदर्भ ग्रंथों के प्रयोग का प्रदर्शन करें। इससे बच्चे भी प्रेरित होंगे और अनुमान के आधार पर निकटतम अर्थ तक पहुँचकर ही संतुष्ट नहीं होंगे बल्कि अधिक अर्थ खोजने का प्रयास करेंगे। वे शब्दों के अर्थ में बारीक अंतरों को समझेंगे और उसी के अनुरूप अपनी भाषा में प्रयोग करेंगे।
- चुनौती पूर्ण और विशेष आवश्यकता वाले बच्चों की भाषा-शिक्षण संबंधी आवश्यकताओं को समझकर पाठ्यचर्या अनुकूलन किया जाए। सीखने-सिखाने की प्रक्रियाओं में उनकी सहभागिता को समान रूप से प्रोत्साहित किया जाए।
- कक्षा में हर प्रकार की विभिन्नताओं के प्रति सकारात्मक और संवेदनशील वातावरण निर्मित किया जाए।
- कक्षा में बच्चों द्वारा किए गए प्रयासों को सराहा जाए और उनके रचनात्मक, सृजनात्मक कार्यों को प्रदर्शित किया जाए।

थीम 1: सुनना और बोलना

बच्चे अपने घर-परिवेश से जो भाषा लेकर विद्यालय आते हैं, धीरे – धीरे उसमें परिष्कार होता जाता है। कक्षा एक के बच्चों से अपेक्षा की जाती है कि वे परिचित संदर्भों में परस्पर वार्तालाप, कविता, कहानी आदि को ध्यानपूर्वक सुनकर समझ सकें तथा बेझिझक होकर अपनी बात स्पष्ट रूप से कह सकें।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ अपने परिचित परिवेश के संदर्भ में सुनी गई बातों को समझ सकेंगे।
- ✓ विद्यालय में औपचारिक, अनौपचारिक स्थितियों में अपने सहपाठियों, अध्यापकों तथा अन्य सहायक कर्मियों की बात समझते हुए सुनेंगे और समझ के साथ प्रतिक्रिया दे सकेंगे, अपनी तरफ से बात आगे बढ़ा सकेंगे।
- ✓ सरल भाषा में बोले गए निर्देशों, आदेशों को सुनकर, समझकर अनुसरण कर सकेंगे।
- ✓ अपने परिचित परिवेश के खेल गीत सुनकर उनका आनंद ले सकेंगे। स्वयं अकेले में, समूह में मिलकर, खेलते हुए गाएँगे। अपरिचित खेल गीत सुनकर दोहरा सकेंगे।
- ✓ सरल तुकबंदी वाली कविताओं को आनंद लेते हुए सुन सकेंगे और समझेंगे। सुर, लय, प्रवाह आदि का ध्यान रखते हुए दोहरा सकेंगे।
- ✓ अध्यापक द्वारा सुनाई गई कहानियों और रोचक प्रसंगों को सुनकर समझेंगे और उस पर प्रश्न कर सकेंगे।
- ✓ सी०डी०/ टेप आदि उपकरणों से सुनाई जा रही कविता, कहानी को सुन सकेंगे, दोहरा सकेंगे। प्रसंग अनुसार मुद्राएँ बना सकेंगे, अभिनय कर सकेंगे।
- ✓ प्रोत्साहित करने पर अपने परिचित परिवेश के बारे में बता सकेंगे।
- ✓ विद्यालय में दिन प्रतिदिन के कार्य-कलापों में भाग लेंगे और कार्यकलाप की प्रकृति अनुसार बातचीत कर सकेंगे।
- ✓ कहानी/कविता आदि से मिले शब्दों को अपनी भाषा में अपनी तरह से प्रयोग कर सकेंगे।
- ✓ परिचित-अपरिचित शब्दों को तरह-तरह से बोलकर तथा तुक वाले शब्द बनाकर उनका आनंद ले सकेंगे।
- ✓ नए शब्दों को संदर्भ में समझते हुए अनुमान से उनका प्रयोग कर सकेंगे।
- ✓ प्रोत्साहन देने पर अपने अनुभव सुना सकेंगे।
- ✓ किसी बात, आदेश या निर्देश पर अपनी सहमति या असहमति प्रकट कर सकेंगे और छोटे-छोटे निर्देश दे सकेंगे।
- ✓ हिंदी की बहुप्रयुक्त ध्वनियों को सुनकर उनमें अंतर कर सकेंगे। ध्वनियों का सही उच्चारण कर सकेंगे।

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<p>➤ विद्यालयी परिवेश जैसे प्रातः कालीन सभा, खेल का मैदान, कक्षा, अवकाश का समय से संबंधित आदि</p>	<p>➤ सीखने के सहज-सरल परिवेश की उपलब्धता जिसमें बच्चे निःसंकोच अपनी बात कहने के लिए तत्परता प्रकट करते हैं।</p> <p>➤ बच्चे के घर की भाषा के प्रति सम्मान और स्वीकृति का भाव दिखाएँ जिससे बच्चों को</p>	<p>➤ घेरा समय</p> <p>➤ गोल दायरे में बैठकर मुक्त वार्तालाप और उसमें बच्चों के परिवेश से संबंधित चित्र।</p> <p>➤ चित्रों के स्रोत-</p>

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ अपने सहपाठियों, अध्यापकों व अन्य विद्यालय कर्मियों द्वारा कही-सुनी गई बातें ➤ विद्यालय में दिन-प्रतिदिन की बातचीत ➤ सरल तुकबंदी वाली रोचक बातें / कविताएँ ➤ परिवेश से जुड़ी बातें, खेल गीत ➤ परिचित परिवेश जैसे पार्क, उद्यान, पेड़-पौधे, पशु-पक्षी, खेल-खिलौनों, गुड़ियाघर पर बातचीत, प्रश्न-उत्तर ➤ अध्यापक द्वारा सुनाए व पढ़े गए रोचक प्रसंग एवं कहानियाँ ➤ सी०डी० द्वारा कविता श्रवण ➤ सी०डी० आदि द्वारा कहानी का श्रवण ➤ अपने परिचित परिवेश, घर, परिवार आदि का वर्णन ➤ नई शब्दावली का प्रयोग ➤ प्रश्न और प्रतिक्रिया ➤ विचारों, इच्छाओं की अभिव्यक्ति ➤ पूछे गए प्रश्नों के उत्तर ➤ पशु-पक्षियों, परिवेश की वस्तुओं आदि के चित्रों के नाम का उच्चारण 	<ul style="list-style-type: none"> अपनी बात अपने तरीके से कहने में संकोच ना हो। ➤ गोल घेरे की गतिविधियों का आयोजन करें। ➤ नियोजित कार्य-कलापों के अनुसार एक-दूसरे को छोटे-छोटे निर्देश देने के मौके दें, जैसे:- <ul style="list-style-type: none"> • अपने साथी से कहो कि वह धीरे-धीरे चले। • अपने साथी से बोलो कि अपनी कॉपी मेज़ पर रखे। ➤ कक्षा-कक्ष एवं खेल के मैदान में सामूहिक खेलों का आयोजन करवाएँ। ➤ खेल के साथ उन्मुक्त भाव से खेल गीत गाने की स्वतंत्रता दें। ➤ बच्चों के उच्चारण के प्रति स्वीकृति का भाव रखें। ➤ व्यक्तिगत अनुभवों और संबंधों पर बातचीत करें। <ul style="list-style-type: none"> • चित्रों पर बातचीत करें। • चित्र जानी-पहचानी स्थितियों के हों। • चित्र सुनी गई कहानियों पर आधारित हों। • चित्रों को हाथ लगाकर इधर-उधर करके देखने, अनुमान लगा कर बोलने की अनुमति / स्वतंत्रता हो। ➤ कहानी कहना / कथा वाचन। हाव-भाव और अभिनय के साथ कहानी सुनाएँ। ➤ पशु-पक्षी, परी, तितली, फल-फूल, खेल, झूला, राजा-रानी आदि की कहानियाँ। ➤ एकल एवं सामूहिक रूप से खेल गीत/ कविता गायन, तुकबंदी वाली कविताएँ बुलवाएँ। ➤ कविताओं और कहानियों का अभिनय करवाएँ- 	<ul style="list-style-type: none"> ➤ पाठ्य पुस्तकें ➤ चित्रात्मक बाल साहित्य ➤ चित्रों के फ़्लैश कार्ड ➤ चार्ट पेपर (ये चित्र प्रत्येक बच्चे के पास उपलब्ध हों जिससे वे अपनी तरह से उठाकर, उलटकर, पलटकर भिन्न-भिन्न कोणों से देख सकें जैसा कि वे करते हैं।) ➤ चित्रों के विषय, कक्षा-कक्ष, बाज़ार, खेल का मैदान, पिकनिक, चिड़ियाघर आदि ➤ स्वतंत्र गतिविधि के लिए समय सारिणी में पर्याप्त समय एवं सामग्री ➤ अध्यापक द्वारा धैर्यपूर्वक लिखा गया प्रत्येक बच्चे का नाम और प्रत्येक वर्ण का सही उच्चारण ➤ बच्चों के परिवार के सदस्यों के लिखे हुए नाम और उनका उच्चारण ➤ चार्ट पर बारहखड़ी ➤ वर्णों व शब्दों के कार्ड व चार्ट ➤ बाल साहित्य ➤ चित्रात्मक पुस्तकें

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
	<ul style="list-style-type: none"> ☛ एक चिड़िया..... अनेक चिड़ियाँ (हाथ से मुद्राएँ बनाना) ☛ (दृष्टि बाधित बच्चे के हाथों को छूकर चिड़िया की मुद्रा बनाना) <ul style="list-style-type: none"> ➤ रोल प्ले और मूक अभिनय करवाएँ। ➤ पुस्तक कोना बनाकर कविता/कहानी की पुस्तकें उलटने-पुलटने के मौके दें। ➤ जानवरों की आवाज़ें बोलकर / टेप द्वारा सुनवाएँ और नकल करने के लिए कहें। ➤ फेरी वालों की आवाज़ें सुनने के लिए प्रोत्साहित करें और कक्षा में उनको सुनाने व अभिनय करने के लिए कहें। ➤ अपनी तरह से तुकबंदी करने के अवसर दें। (सार्थक शब्दों की अपेक्षा न की जाए) ➤ शब्दों की लड़ी जैसे – ➤ खेलना, झूलना..... आदि बनवाएँ ➤ प्रश्न करने के लिए प्रोत्साहित करें। ➤ श्रवण बाधित / मूक-बधिर बच्चों के संकेत समझने और उन्हें अपनी बात संप्रेषित करने के अवसर दें। ➤ दृष्टि बाधित बच्चों को बोली जा रही वस्तुओं को छूने के अवसर दें, उनके हाथ पकड़कर, क्रियाएँ कर के भाव बताएँ, जैसे:- दोनों हाथ फैलाकर बड़े का अहसास कराना आदि। 	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चों के विद्यालय आने का उद्देश्य पढ़ना और लिखना सीखना होता है। चित्रों की सहायता से बच्चे अनुमान लगा कर पढ़ना सीखते जाते हैं और भाषा की ध्वनियों / वर्णों और मात्राओं को पहचानने लगते हैं। लेखन का आरंभ बच्चों द्वारा 'कीरम काटी' या चित्र बनाने से ही हो जाता है और धीरे-धीरे वे परिवेश में प्रदर्शित लिखित सामग्री से वर्णों और मात्राओं को पहचान कर उनका अनुलेख तथा शब्द लिखने लगते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ परिचित परिवेश से संबंधित चित्रों को ध्यान से देखकर उनका अपनी भाषा में वर्णन कर सकेंगे।
- ✓ चित्र पर आधारित प्रश्नों के उत्तर दे सकेंगे और स्वयं भी प्रश्न पूछ सकेंगे।
- ✓ चित्र को समझकर उसका कोई नाम (शीर्षक) दे सकेंगे और लिख सकेंगे (स्ववर्तनी)।
- ✓ बोली / सुनी गई कविताओं के आधार पर चित्र बना सकेंगे।
- ✓ उस पर शब्द या एक-दो वाक्य लिख सकेंगे (स्ववर्तनी)।
- ✓ अपना व परिचितों का नाम देखकर लिख और पढ़ सकेंगे।
- ✓ अपने नाम में आए अक्षरों व वर्तनी की पहचान कर सकेंगे।
- ✓ बारह खड़ी के सभी वर्णों को पहचान सकेंगे।
- ✓ बारह खड़ी के आधार पर सरल व सार्थक शब्द बना सकेंगे (तीन अक्षर वाले)।
- ✓ अध्यापक द्वारा सुनाई, सिखाई और गवाई गई सरल तुकबंदियों और बाल कविताओं को गा सकेंगे और उनके लिखित रूप के प्रति पहचान बना सकेंगे।
- ✓ सरल तुकबंदियों और बाल कविताओं को अनुमान और पूर्व अनुभवों के आधार पर पढ़ सकेंगे।
- ✓ अध्यापक की मदद से दृश्य शब्दावली को पढ़ सकेंगे।
- ✓ दृश्य शब्दावली में सीखे, पढ़े गए शब्दों के आधार पर मौखिक रूप से वाक्य बना और लिख सकेंगे।
- ✓ वाक्य को पढ़ते और लिखते समय पूर्ण विराम के प्रयोग को समझ सकेंगे।
- ✓ कक्षा में सीखे गए शब्दों / वाक्यों को परिचित संदर्भों में मिलने वाली पठन सामग्री में पहचान सकेंगे, जैसे – होर्डिंग्स, विज्ञापन, घर-कक्षा में टंगे कैलेंडर-चार्ट आदि पर।
- ✓ बोर्ड (श्यामपट्ट / सूचना पट्ट) आदि पर लिखी और लगी सामग्री को अनुमान और पूर्व अनुभवों के आधार पर पढ़ सकेंगे।
- ✓ लेखन में दो शब्दों के बीच की दूरी, अक्षरों की सुडौलता, शिरोरेखा, विराम-चिह्नों का ध्यान रख सकेंगे।
- ✓ सरल व परिचित शब्दों का श्रुतलेख लिख सकेंगे, जैसे – सड़क, सीढ़ी, ठेला, ढोलक, डलिया, बाण, नदी आदि।

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
▶ चित्र पठन के लिए विद्यालय, कक्षा-कक्ष, खेल का मैदान, बाज़ार आदि के चित्र	▶ चित्रों का अवलोकन करने का पर्याप्त समय व अवसर दें। ▶ चित्रों पर बातचीत करें और प्रश्न पूछें।	▶ विभिन्न प्रकार के चित्र पोस्टर तथा चार्ट

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ▶ चित्रों में लिखे शब्द ▶ अपना व अपने परिवार के सदस्यों व मित्रों के नाम ▶ बारहखड़ी के आधार पर सरल शब्द, जैसे – <ul style="list-style-type: none"> ☛ काका, मेरा, नानी, लाल, आम, माला, जाला आदि ▶ चित्र बनाना और उनका नाम लेखन ▶ 2 से 5 पंक्तियों की सरल तुकबंदियों और बाल कविताओं का अनुमान और पूर्व अनुभवों के आधार पर पठन ▶ चार-पाँच वाक्यों वाली चित्र कथाओं का अनुमान और पूर्व अनुभवों के आधार पर पठन ▶ चित्र कथाओं, कहानी की पुस्तकों (बाल साहित्य) के आवरण पृष्ठ के आधार पर कहानी का अनुमान लगाना। उनके शीर्षकों का अनुमान के आधार पर पठन ▶ श्यामपट्ट/ फ़्लैश कार्ड पर लिखी दृश्य शब्दावली (दृश्य शब्दावली – पशु, पक्षियों, खेल उपकरण यथा झूला आदि, मौसम, दिनों, महीनों, रंगों के नाम हो सकते हैं) ▶ दृश्य शब्दावली के अक्षरों से नए शब्दों का निर्माण और लेखन ▶ पूर्ण विराम चिह्न ▶ शब्द, वाक्य से परिचय 	<ul style="list-style-type: none"> ▶ चित्र पर लिखे गए शब्दों को पढ़ने के लिए प्रेरित करें। ▶ चित्र बनाने के अवसर और पर्याप्त सामग्री दें। ▶ बनाए गए चित्रों की सराहना करें। ▶ बारह खड़ी चार्ट से वर्णों, मात्राओं की पहचानने और पढ़ने के अवसर दें। ▶ नए शब्द बनाने के अवसर प्रदान करें। ▶ बच्चों को पुस्तकों में से कविताएँ पढ़कर सुनाने के अवसर दें। ▶ कक्षा की दीवारों पर लगी मुद्रित सामग्री को अनुमान और अनुभवों के आधार पर पढ़ने के अवसर दें। ▶ पुस्तकालय ले जाकर बच्चों को बाल कविताओं और कहानियों की पुस्तकों को उलट – पुलट कर पढ़ने का अवसर दें। ▶ अपने नाम के वर्णों से प्रारंभ करके सभी वर्णों, मात्राओं और उनसे बनने वाले सरल परिचित शब्दों का अनुलेख लिखने के लिए प्रेरित करें। ▶ परिचित सरल शब्दों से दो या तीन शब्दों वाले वाक्यों का अनुलेख लिखने को कहें (ध्यान दें कि बच्चे शब्दों पर शिरोरेखा लगाएँ और वाक्य के अंत में पूर्ण विराम का प्रयोग करें)। ▶ सरल व परिचित शब्दों का श्रुतलेख करवाएँ। 	<ul style="list-style-type: none"> ▶ बोर्ड, होर्डिंग, विज्ञापन पट्ट, संकेत आदि ▶ बारह खड़ी का चार्ट ▶ फ़्लैश कार्ड, कैसेट या सी०डी० ▶ शब्दों के चार्ट ▶ शब्दलड़ी, शब्द-सीढ़ी आदि। ▶ बाल कविताएँ ▶ बाल साहित्य ▶ कविताओं के चार्ट ▶ वाक्य फ़ीतियाँ

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none">➤ खेल गीतों पर चित्र निर्माण, पठन और देखकर लेखन➤ परिचित शब्द / संदर्भों के आधार पर वाक्य लेखन➤ कक्षा कक्ष की दीवारों पर टंगे चार्ट, कविता आदि का पठन		

थीम 1: सुनना और बोलना

बच्चे परिचित-अपरिचित संदर्भों में परस्पर वार्तालाप, कविता, कहानी, वर्णन, पहेली आदि को ध्यानपूर्वक सुनकर समझते हैं। उसके मुख्य भाव को पकड़ सकते हैं एवं स्पष्ट उच्चारण के साथ अपनी प्रतिक्रिया व्यक्त करते हैं। कहानी-कविता आदि को उचित लय-ताल और हाव-भाव के साथ सुनाते हैं और पूछे गए प्रश्नों के स्पष्ट उत्तर देते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ परिचित – अपरिचित परिवेश से जुड़े विषयों पर किए जा रहे वार्तालाप को रुचिपूर्वक सुनकर समझ सकेंगे और उसमें भाग ले सकेंगे।
- ✓ अध्यापक, मित्रों, विद्यालय के अन्य कर्मियों के साथ बेझिझक बातचीत कर सकेंगे तथा एक – दूसरे की बात पर प्रतिक्रिया व्यक्त कर सकेंगे।
- ✓ अपना परिचय तथा अपने बारे में पूछे गए प्रश्नों का उत्तर आत्मविश्वास के साथ दे सकेंगे।
- ✓ छोटे-छोटे निर्देश सुन और समझ कर उनका अनुसरण कर सकेंगे तथा अपने साथियों को भी निर्देश दे या समझा सकेंगे।
- ✓ घर, आस-पड़ोस तथा विद्यालय से जुड़ी जानकारियाँ तथा महत्वपूर्ण सूचनाएँ साझा कर सकेंगे।
- ✓ परिचित – अपरिचित गीतों व कविताओं को सुनकर समझेंगे और आनंद लेंगे।
- ✓ कविताओं को याद करके हाव – भाव के साथ सुना सकेंगे और अकेले या समूह में गाएँगे।
- ✓ भिन्न – भिन्न विषयों पर आधारित रोचक कहानियाँ सुन एवं सुना सकेंगे तथा पात्रों की विशेषताओं का उल्लेख कर सकेंगे।
- ✓ कहानी का मुख्य भाव समझ सकेंगे तथा कौन, कब, कहाँ और कैसे वाले प्रश्नों के उत्तर दे सकेंगे।
- ✓ खुले अंत वाली कहानियों की घटनाओं को बदलकर कहानी को आगे बढ़ा सकेंगे।
- ✓ परिवेश से संबंधित चित्रों को उत्सुकता एवं ध्यानपूर्वक देखकर उन पर सहजभाव से अपनी टिप्पणी दे सकेंगे तथा अध्यापक द्वारा पूछे गए प्रश्नों के उत्तर शब्दों या पूरे-पूरे वाक्यों में दे सकेंगे।
- ✓ अपने एवं सहपाठी के बनाए हुए चित्रों के प्रति उत्सुकता प्रकट करते हुए अपनी भाषा में चित्रों का वर्णन कर सकेंगे तथा शीर्षक दे सकेंगे।
- ✓ परिचित परिवेश से लिए गए शब्दों को बोलकर सुना सकेंगे तथा उस शब्द में आए अक्षरों की ध्वनियों को पहचान सकेंगे।
- ✓ अनौपचारिक संवाद में सुनी गई पहेलियाँ बूझ सकेंगे।
- ✓ सुनी और सीखी गई शब्दावली का प्रयोग करते हुए अपनी बात व अनुभव सुना सकेंगे।
- ✓ नए और तुक वाले शब्द बना सकेंगे।

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ खेल, घर, पुस्तकालय, खाने-पीने की वस्तुएँ, त्योहार, मेले, ऋतुएँ आदि से संबंधित वार्तालाप ➤ मैं और मेरा परिवार ➤ अपनी पसंद की कविताएँ तथा गीत ➤ खेल के मैदान तथा कक्षा में दिए गए निर्देश ➤ दो-तीन वाक्यों वाली चित्र कथाओं की पुस्तकें (ईमानदारी, सहयोग, सहायता, दया, परिश्रम, विषयों पर) ➤ सूचनाएँ – दवाई का छिड़काव, सफ़ाई, पौधारोपण, स्कूल में अवकाश, वार्षिकोत्सव आदि ➤ कहानियाँ - परिचित परिवेश की, पारंपरिक कहानियाँ, बाल साहित्यकारों की कहानियाँ ➤ परिचित परिवेश और विषयों पर संवाद, कहानियाँ व कविताएँ – पशु-पक्षी, खान-पान, परिवार संबंधी, मित्र, मिठाइयाँ, मौसम, खेल-खिलौने, विद्यालय, पुस्तकें, पेड़-पौधे, सूरज-चाँद, बादल, फ़ोन, वाहन, खेती, हाट-बाज़ार, साहसिक कारनामे, जंगल, कीड़े-मकोड़े आदि ➤ गैर कथात्मक सामग्री – निर्देश, जानकारी परक छोटे-छोटे 	<ul style="list-style-type: none"> ➤ बेझिझक अपनी बात कहने देने की स्वतंत्रता दें तथा प्रतिक्रियाओं का स्वागत करें। ➤ वार्तालाप का आयोजन करें और सबको बोलने का अवसर दें। ➤ बच्चों से उनके तथा उनके परिवार, रुचियों, काम, त्योहार आदि के बारे में पूछें। ➤ सरल निर्देश व सूचनाएँ साथी तक पहुँचाने और उनका पालन करने के लिए प्रेरित करें। ➤ कक्षा में कविता और कहानी सत्र आयोजित करें। कहानी कहने के लिए किसी को निमंत्रित करें। ➤ कविता गान और कहानी का अभिनय करवाएँ। ➤ कहानियों के संबंध में प्रश्न पूछें, कहानी के पात्रों के बारे में उनकी राय पूछें, घटनाओं को बदलकर कहानी आगे बढ़वाएँ, घटनाओं को क्रम से लगवाएँ। ➤ चित्रों पर बातचीत करें, (चित्रों के संबंध में बच्चों को स्वतंत्र रूप से अपने विचार व्यक्त करने दें) चित्रों का वर्णन अपनी कल्पना से करने को कहें। ➤ चित्र कथाओं की पुस्तकें देकर कहानी सुनाने को कहें। ➤ बाल साहित्य की पुस्तकें देखने, पढ़ने, उलटने-पलटने के लिए दें। ➤ शब्दों के खेल आयोजित करें – शब्द लड़ी, शब्द-सीढ़ी, शब्द अंत्याक्षरी, तुकबंदी, कविताओं और गीतों की अंत्याक्षरी आदि। ➤ समाचार पत्रों और बाल पत्रिकाओं से कविताएँ, कहानियाँ पढ़कर सुनाएँ। ➤ पहेलियाँ पूछें और बुझवाएँ। 	<ul style="list-style-type: none"> ➤ चित्र, पोस्टर, फ़्लैश कार्ड, बाल-साहित्य, समाचार-पत्र, पत्रिकाएँ, कठपुतलियाँ, हैंड पपेट, चित्रकथा पुस्तकें, सी०डी०, चित्र आदि ➤ कार्य प्रपत्र

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<p>पाठ्यांश, निमंत्रण, व्याख्यात्मक पाठ्य सामग्री</p> <p>➤ शब्दों और अक्षरों से जुड़ी पहेलियाँ</p> <p>➤ समाचार पत्र पत्रिकाओं में छपी कविताएँ व कहानियाँ</p> <p>➤ लघुनाटिकाएँ, गीत, कठपुतली खेल आदि की प्रस्तुति</p>	<p>➤ लघु नाटकों का अभिनय करवाएँ।</p> <p>➤ नाटक / कठपुतली के खेलों का आयोजन करें।</p> <p>➤ विभिन्न कार्यक्रमों के बाद बच्चों की प्रतिक्रिया जानें।</p>	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

अब बच्चे औपचारिक रूप से पढ़ना और लिखना सीख जाते हैं। वे लिखित, मुद्रित सामग्री को पढ़कर उसके अर्थ को समझने लगते हैं और अपने विचारों को लिखकर अभिव्यक्त करते हैं। परिचित विषयों पर कुछ क्रमबद्ध वाक्य लिखते हैं। पठन सामग्री में कुछ व्याकरणिक इकाइयों जैसे संज्ञा, सर्वनाम, विशेषण, क्रिया आदि की पहचान कर पाते हैं और उनका शब्द-भंडार पहले से अधिक समृद्ध हो जाता है।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ चित्रों का अवलोकन करके चित्र आधारित पूछे गए प्रश्नों के उत्तर दे सकेंगे तथा प्रश्न पूछ सकेंगे।
- ✓ चित्र में देखे गए घटनाक्रम को अपने अनुभवों से जोड़कर समझ सकेंगे।
- ✓ चित्र / विज्ञापन में लिखी हुई भाषा को पहचान सकेंगे और उसे अनुमान के आधार पर पढ़ सकेंगे।
- ✓ अपना, अपने परिवार के सदस्यों एवं अपने सहपाठियों के नाम लिखकर उनके चित्र बना सकेंगे तथा उनके बारे में कुछ शब्द या दो वाक्य लिख सकेंगे।
- ✓ श्याम पट्ट / चार्ट पर लिखी तुकबंदियों को पढ़ते हुए अपनी कॉपी में अनुलेख लिख सकेंगे।
- ✓ तुकबंदियों, कविताओं के अर्थ एवं भाव समझते हुए उनपर चित्र बना सकेंगे।
- ✓ छोटे-छोटे नाटक पढ़ सकेंगे और उनका अभिनय कर सकेंगे। आवश्यकतानुसार अपने मन से संवाद बोल सकेंगे।
- ✓ अध्यापक द्वारा दिखाए गए चित्रों (चार्ट पेपर / पाठ्य पुस्तक / टीवी कंप्यूटर आदि द्वारा) का वर्णन अपने शब्दों में लिख और पढ़कर सुना सकेंगे।
- ✓ शब्द, वाक्य, अनुच्छेद, कहानी, नाटक आदि में अंतर कर सकेंगे।
- ✓ प्रातः कालीन सभा में सरल विषयों पर अपने विचार पढ़कर सुना सकेंगे।
- ✓ कक्षा / विद्यालय में सूचना पट्ट / दीवार पत्रिका / बुलेटिन बोर्ड आदि पर प्रदर्शित सामग्री को पढ़ और समझ सकेंगे।
- ✓ नए शब्दों को अनुमान के आधार पर पढ़ सकेंगे और संदर्भ में उनका अर्थ समझ सकेंगे।
- ✓ अपनी भाषा में छोटी-छोटी घटनाओं का वर्णन लिख एवं पढ़ सकेंगे।
- ✓ विद्यालय की पत्रिका, बुलेटिन बोर्ड आदि के लिए चित्र, चुटकुले, पहेलियाँ आदि लिखकर संकलित कर सकेंगे।
- ✓ प्रश्नवाचक शब्दों का मौखिक एवं लिखित रूप से सार्थक प्रयोग कर सकेंगे।
- ✓ विद्यालय / घर द्वारा आयोजित भ्रमण के अनुभवों को सुना और लिख सकेंगे तथा वहाँ की प्रस्तुति चित्र द्वारा भी कर सकेंगे।
- ✓ सयुक्त व्यंजनों, 'र' के रूपों और 'ऋ' की पहचान कर सकेंगे और पढ़-लिख सकेंगे।
- ✓ विभिन्न खेलों में प्रयुक्त शब्दावली का प्रयोग करते हुए अनुच्छेद / घटना आदि लिख सकेंगे और पढ़कर सुना सकेंगे।
- ✓ पाठ्य पुस्तक के पाठों को सही उच्चारण के साथ पढ़कर सुना सकेंगे और उनपर आधारित अभ्यास कार्यों को लिखकर पूरा कर सकेंगे।
- ✓ सार्थक एवं रुचिकर सामग्री द्वारा मिलती-जुलती ध्वनियों / वर्णों ('ड़' और 'ढ़') में निहित अंतर पहचान सकेंगे और सही प्रयोग कर सकेंगे।

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ▶ चित्र पठन के लिए कक्षा, बस-स्टॉप, डाकघर, मेला, पुस्तकालय, पार्क, बाज़ार आदि के चित्र ▶ चित्र में जहाँ - जहाँ लिखित / मुद्रित सामग्री है, उसकी पहचान ▶ 5 से 10 पंक्तियों की सरल तुकबंदियों, बाल कविताओं का पठन एवं अनुलेख ▶ चित्र-निर्माण एवं उसका शीर्षक लेखन ▶ कविता, कहानी में बार-बार आए शब्दों से छोटे-छोटे वाक्यों का निर्माण ▶ दृश्य शब्दावली पठन ▶ पूर्ण विराम, प्रश्नवाचक चिह्नों की पहचान और अपने लेखन में उनका उपयोग ▶ चित्र, चुटकुले, पहेलियों आदि का संकलन ▶ मेला, त्योहार, बाज़ार, पिकनिक आदि भ्रमण के अनुभव का लेखन ▶ शिरोरेखा का ध्यान रखते हुए वाक्य लेखन ▶ विद्यालय की पत्रिका, समाचार पत्रों में छपे कार्टून, कविताओं का पठन ▶ रोचक पहेलियाँ बूझना और उनका लेखन ▶ परिचित-अपरिचित परिवेश की कहानियाँ – पारंपरिक कहानियों, 	<ul style="list-style-type: none"> ▶ तरह-तरह के चित्रों का अवलोकन करने का पर्याप्त समय और अवसर दें। ▶ चित्रों में मुद्रित शब्दों को पढ़वाएँ। ▶ विज्ञापन, होर्डिंग की छपी हुई भाषा पढ़वाएँ। ▶ चित्र से संबंधित तीन-चार वाक्य लिखवाएँ। ▶ परिचित शब्दों से वाक्य बनवाएँ। ▶ घटना, भ्रमण आदि के अनुभव को कुछ वाक्यों में लिखने को कहें। ▶ उनके परिचित परिवेश से जुड़े विषयों पर चार-पाँच संबद्ध वाक्य लिखवाएँ। ▶ चित्रों द्वारा नाम वाले और काम वाले शब्दों की पहचान करवाएँ (बच्चों को संज्ञा, सर्वनाम की परिभाषा या जानकारी नहीं देनी है, केवल पहचान करवानी है। ▶ कहानी के पात्रों के विषय में बातचीत करते हुए उनके लिए प्रयोग किए गए विशेषण शब्दों की ओर ध्यान दिलवाएँ, जैसे- मोटा-पतला, अच्छा-बुरा, चतुर, समझदार, ईमानदार आदि। ▶ पठन-सामग्री में नाम के स्थान पर प्रयोग किए गए शब्दों, जैसे- मैं, तुम, आप, हम, यह, वह आदि की ओर ध्यान दिलवाएँ। ▶ कक्षा में समाचार पत्र / बाल पत्रिकाएँ, बाल-साहित्य की पुस्तकें प्रदर्शित करें। पढ़ने के लिए प्रोत्साहित करें और उनमें से कुछ कविता / कहानी पढ़कर स्वयं 	<ul style="list-style-type: none"> ▶ चित्र, पोस्टर, चार्ट, फ़्लैश-कार्ड, सी०डी०, समाचार-पत्र, पत्रिकाएँ, बाल-साहित्य, संकेत-पट, बुलेटिन बोर्ड, होर्डिंग, विज्ञापन आदि ▶ कार्य प्रपत्र ▶ भाषा खेल ▶ चुटकुलें, पहेलियों का संकलन

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सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<p>संवाद, एकांकी, परी कथाओं का पठन</p> <ul style="list-style-type: none"> ▶ कविता / कहानी के आधार पर चित्र निर्माण ▶ विभिन्न वस्तुओं, स्थानों आदि की सूची ▶ मिलती-जुलती ध्वनियों / वर्णों ('ड' और 'ढ़') में सार्थक पठन सामग्री एवं व्यावहारिक प्रयोगों द्वारा अंतर ▶ परिचित विषयों पर छोटे-छोटे वर्णनात्मक अनुच्छेद-लेखन, जैसे – मेरा प्रिय फूल, मिठाई, खेल, मित्र, मौसम <p><u>संदर्भ में व्याकरण</u></p> <ul style="list-style-type: none"> ▶ उद्देश्य और संदर्भ के अनुसार शब्दों का उचित प्रयोग ▶ नाम वाले शब्द (संज्ञा) की पहचान और उनका प्रयोग ▶ काम वाले शब्द (सर्वनाम) की पहचान एवं प्रयोग ▶ विशेषता बताने वाले शब्द (विशेषण) की पहचान एवं प्रयोग ▶ मैं, मेरा, हम, अपना, वह, उनका, उनकी, उसे, उन्हें आदि (सर्वनाम) की पहचान एवं प्रयोग ▶ शब्दसंपदा में वृद्धि के लिए तरह-तरह के भाषायी खेल ▶ विलोम शब्दों की पहचान एवं प्रयोग 	<p>सुनाएँ।</p> <ul style="list-style-type: none"> ▶ संयुक्त व्यंजन, 'र' के विभिन्न रूप और 'ऋ' के प्रयोग वाले शब्दों के कार्ड बच्चों को दिखाएँ और पढ़वाएँ। उनके लिखित रूप और उच्चारण में अंतर बताते हुए अनुलेख करवाएँ। जैसे- मक्खी, छुट्टी, समुद्र; कर्म, क्रम, वर्षा; ऋतु, ऋषि आदि। ▶ मिलती-जुलती ध्वनियों जैसे- ड-ढ़, श-स, द-ध, ग-घ आदि से निर्मित शब्दों के कार्ड दिखाकर उनका सही उच्चारण करवाएँ और लिखवाएँ (इन ध्वनियों का स्पष्ट उच्चारण सुनवाने के लिए सी०डी० का प्रयोग किया जा सकता है)। ▶ शब्द-खेलों द्वारा बच्चों से अधिक से अधिक नए शब्द बनवाएँ और उनका शब्द भंडार विकसित करें। ▶ कक्षास्तर के अनुकूल सरल, बहुप्रयुक्त विलोम शब्दों जैसे- यहाँ-वहाँ, इधर-उधर, आगे-पीछे दिन-रात, अच्छा-बुरा, ऊपर-नीचे आदि से परिचित करवाएँ और इनका वाक्य में प्रयोग करवाएँ। 	

थीम 1: सुनना और बोलना

बच्चे विभिन्न संदर्भों में परस्पर बातचीत, कविता, कहानी आदि को ध्यानपूर्वक सुनकर समझते हैं और अपनी प्रतिक्रिया देते हैं। कहानी, कविता, संवाद आदि को भावपूर्ण ढंग से सुनाते हैं। पूछे गए प्रश्नों के स्पष्ट उत्तर देते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ अपरिचित संदर्भों और विषयों पर सुनी गई बात को समझकर अपनी प्रतिक्रिया दे सकेंगे।
- ✓ विद्यालय में दिन-प्रतिदिन के संवाद में सक्रिय रूप से भाग ले सकेंगे।
- ✓ सूचनाओं व जानकारियों और औपचारिक तथा अनौपचारिक संदेशों को सुनकर समझ सकेंगे तथा अपने सहपाठियों और अभिभावकों को स्पष्ट रूप से संप्रेषित कर सकेंगे।
- ✓ अपरिचित शब्दों का अर्थ विशेष संदर्भ में अनुमान द्वारा समझ सकेंगे।
- ✓ पिछली कक्षा की अपेक्षा अधिक लंबी एवं अमूर्त विषयों (प्रेम, सौहार्द, एकता आदि) पर कविताएँ सुनेंगे और उचित हाव – भाव और लय के साथ सुना सकेंगे।
- ✓ भिन्न – भिन्न अवसरों पर कविता, कहानी, गीत, वक्तव्य चुटकुले, पहेलियाँ आदि सुना सकेंगे।
- ✓ नाटक में भाग लेंगे और अपने चरित्र के अनुसार संवाद बोल सकेंगे।
- ✓ भिन्न – भिन्न स्थानों के अनुभवों को याद कर कक्षा में सुना सकेंगे।
- ✓ सुनी हुई घटनाओं, कहानियों आदि को उचित क्रम से स्पष्ट शब्दों में अभिनयात्मक ढंग से सुना सकेंगे।
- ✓ सुनी गई पाठ्य सामग्री के मुख्य भाव को समझ सकेंगे और बता सकेंगे।
- ✓ पाठ्य पुस्तक एवं उससे इतर बाल साहित्य की रचनाओं के पठन को रुचि के साथ सुनकर प्रश्न कर सकेंगे, अपने तर्क दे सकेंगे तथा अपने विचार प्रस्तुत कर सकेंगे।
- ✓ नई कहानियाँ (फंतासी, ऐतिहासिक आदि), प्रसंग, घटनाएँ, वर्णन आदि सुनकर समझ सकेंगे और विस्तृत जानकारी तथा जिज्ञासा शांत करने के लिए प्रश्न पूछ सकेंगे।
- ✓ संचार माध्यमों के द्वारा आयोजित बाल कार्यक्रमों जैसे – तरंग आदि के कार्यक्रम देखकर समझ सकेंगे और उन पर अपने विचार प्रस्तुत कर सकेंगे।
- ✓ अध्यापक द्वारा पढ़ाए जा रहे पाठों को ध्यान से सुनकर पूछे गए प्रश्नों का अपने शब्दों में स्पष्ट उत्तर दे सकेंगे।

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ▶ अपने अनुभवों एवं कल्पनाओं का प्रत्यास्मरण ▶ सुनी हुई कविताएँ एवं गीत ▶ समाचार पत्रों, पाठ्य पुस्तक एवं पाठ्य पुस्तक से इतर सामग्री से पढ़ी गई कविता, कहानी, तुकबंदी, गीत 	<ul style="list-style-type: none"> ▶ भिन्न-भिन्न संदर्भों में भाषा के मौखिक रूप के प्रति समझ बनाने के अवसर दें (विभिन्न स्रोतों द्वारा कविता, कहानी, नाटक, घटना आदि)। ▶ अपरिचित शब्दों / नामों का अर्थ जानने-समझने के अवसर दें। ▶ अपने अनुभवों को साझा कर करने के अवसर प्रदान करें। 	<ul style="list-style-type: none"> ▶ सी०डी०, शब्दों के कार्ड, अपरिचित वस्तुओं के नामों की सूची, समाचार-पत्र, बाल-साहित्य कठपुतलियाँ, मुखोटे, कंप्यूटर, टीवी, राष्ट्रीय त्योहारों, ऋतुओं आदि के चित्र

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ रोचक पहेलियाँ ➤ सांस्कृतिक आयोजन ➤ नाटक एवं संवाद ➤ विद्यालय द्वारा आयोजित भ्रमण के अनुभव जैसे – पुस्तक मेला, ऐतिहासिक स्थल आदि ➤ फंतासी पर आधारित कहानियाँ ➤ परिचित स्थितियों पर आधारित संदेश ➤ दूरदर्शन, कंप्यूटर, इंटरनेट, सिनेमा पर दिखाई जाने वाली, मेले, त्योहार, खेल, स्वच्छता, स्वास्थ्य आदि सामग्री पर प्रतिक्रिया ➤ सरल एवं परिचित विषयों पर प्रश्न निर्माण 	<ul style="list-style-type: none"> ➤ कविताओं और गीतों की प्रस्तुति के लिए कक्षा में कविता-पाठ और अंत्याक्षरी जैसे खेल खिलाएँ। ➤ समाचार-पत्र, पत्रिकाएँ, बाल-साहित्य आदि उपलब्ध करवाएँ। उसमें से रोचक सामग्री पढ़कर सुनवाएँ / सुनाएँ। बच्चों को ऐसे अवसर प्रदान करें जिसमें बच्चे समाचार, कहानी, कविता आदि का प्रत्यास्मरण कर सकें, जैसे – वर्षा पर कोई कविता सुनाओ या मित्रता विषय पर कोई कहानी सुनाओ। ➤ नाटकों का अभिनय करवाने के अवसर प्रदान करें। ➤ भ्रमण के लिए विभिन्न स्थलों जैसे- डाकघर, पुस्तक – मेला, कोई फैक्ट्री, ऐतिहासिक स्थल आदि ले जाएँ। वहाँ की कार्य – प्रणाली, कर्मचारी, प्रदर्शित वस्तुएँ / पुस्तकें आदि की विस्तृत जानकारी दें। ➤ समय-समय पर भ्रमण के अनुभव सुनाने के लिए प्रोत्साहित करें। ➤ बच्चों को सरल संदेशों को दूसरे व्यक्ति तक पहुँचाने के लिए प्रेरित करें और बच्चों को अवसर भी दें। ➤ सुनी गई सामग्री पर प्रश्न पूछने के लिए प्रेरित करें। 	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चे पाठ्य-सामग्री को प्रवाहपूर्ण ढंग से पढ़ते हैं और उनकी लिखित अभिव्यक्ति विकसित और स्पष्ट हो जाती है। विराम चिह्नों और उचित आरोह – अवरोह के साथ हस्त लिखित और मुद्रित सामग्री को पढ़ते हैं। पढ़े गए विषयों पर अपने विचार क्रमबद्ध रूप से लिख सकते हैं। व्याकरणिक इकाइयों – कर्ता, कर्म, क्रिया आदि तथा काल की पहचान करते हैं और उनके शब्द भंडार में उत्तरोत्तर वृद्धि होती जाती है।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ विद्यालय, बाजार या अन्य स्थानों में प्रदर्शित विज्ञापनों / दीवार लेखन / होर्डिंग्स / सूचनाओं आदि को पढ़ सकेंगे।
- ✓ अपने सहपाठियों का लेखन पढ़ सकेंगे।
- ✓ रचनाओं को विराम चिह्नों का ध्यान रखते हुए सही उतार-चढ़ाव, लय, बलाघात से पढ़ सकेंगे।
- ✓ अपनी रुचि के अनुसार पाठ्य – पुस्तक के अतिरिक्त अन्य कहानी, कविताएँ, नाटक पढ़ सकेंगे।
- ✓ पठन सामग्री को पढ़कर उसकी मुख्य बात / विचार को समझ सकेंगे और घटनाओं के क्रम को समझेंगे।
- ✓ आवश्यक नियमों और निर्देशों को क्रमवार सुना सकेंगे और उनका पालन कर सकेंगे और लिख सकेंगे।
- ✓ विद्यालय के बरामदे, सभागार आदि में टंगे चित्रों को पढ़ कर उनका शीर्षक लिख सकेंगे।
- ✓ चित्र कथाएँ, कार्टून पढ़ सकेंगे और स्वयं भी चित्र बनाकर उसकी प्रकृति के अनुसार संवाद / टिप्पणी लिख सकेंगे।
- ✓ कहानी / कविता आदि को अपने अनुभव, कल्पना के आधार पर बदलते हैं और दिए गए विषयों पर वर्तनी और विराम चिह्नों का ध्यान रखते हुए छोटे अनुच्छेद व अनौपचारिक पत्र लिख सकेंगे रचनात्मक अभिव्यक्ति का विकास कर सकेंगे।
- ✓ तरह-तरह के भाषायी खेल खेल सकेंगे।

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ प्रदर्शित विज्ञापनों, सूचना पट्टों, होर्डिंग आदि पर लिखित सामग्री ➤ सहपाठियों द्वारा लिखित सामग्री जैसे – अनुच्छेद, कविता, पत्र आदि ➤ विभिन्न विषयों जैसे – एकता, मित्रता, सहयोग, चतुराई, सूझ – बूझ, साहस, वीरता, देशभक्ति, आदि पर रचनाएँ ➤ चित्र के साथ कविता / संवाद / कार्टून / चित्रकथाओं का पठन एवं लेखन 	<ul style="list-style-type: none"> ➤ विज्ञापनों, सूचना पट्टों, होर्डिंग आदि मुद्रित सामग्री को पढ़ने के लिए प्रेरित करें। ➤ कक्षा के बच्चों की हस्तलिखित सामग्री एक दूसरे से पढ़वाएँ। ➤ कहानी, कविताओं आदि की पुस्तकें पढ़ने के लिए दें। कहानियों के मुख्य भाव / विषय पर प्रश्न पूछें। पात्रों / घटनाओं के बारे में बातचीत करें। घटनाओं को क्रमबद्ध करने के लिए कहें। घटनाओं और पात्रों को बदलकर कहानी को पुनः लिखने के लिए कहें। कहानी का अंत बदल कर लिखवाएँ। ➤ बच्चों को स्वयं छोटी छोटी-कविताएँ और 	<ul style="list-style-type: none"> ➤ विज्ञापन, होर्डिंग, सूचना पट आदि। ऑडियो, वीडियो, सी०डी०, कार्ड, चित्र, पोस्टर, बुलेटिन बोर्ड आदि ➤ बाल – साहित्य, समाचार – पत्र, पत्रिकाएँ ➤ शब्द – संपदा के चार्ट आदि ➤ पहेलियाँ / चुटकुलें, कार्टून आदि

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ व्याकरणिक संरचनाओं पर चार्ट ➤ सामाजिक जागरूकता से संबंधित विज्ञापन, समाचार पत्र, पत्रिकाओं आदि का पठन ➤ दैनिक जीवन की अनिवार्य सूचनाएँ एवं नियमावली, जैसे – <ul style="list-style-type: none"> • ट्रेफ़िक के नियम • विद्यालय के नियम ➤ अपने साथियों के साथ खेले जा रहे खेलों के नियमों का पठन एवं लेखन ➤ परिचित विषयों पर तुकबंदियों का निर्माण संदर्भ में व्याकरण ➤ पूर्व कक्षाओं में सीखी व्याकरण की अवधारणाओं की पुनरावृत्ति एवं अभ्यास ➤ किसी वाक्य में कर्ता, कर्म एवं क्रिया की पहचान ➤ वर्तमान, भूत, भविष्य काल की पहचान, जैसे – <ul style="list-style-type: none"> • कहानी में काल परिवर्तन कर कहानी का आनंद लेना ➤ शब्द संपदा में वृद्धि। समानार्थी विलोम, अनेक शब्दों के लिए एक शब्द, अनेकार्थी ➤ वचन की समझ और प्रयोग ➤ योजक शब्दों की पहचान और अनुप्रयोग रचनात्मक लेखन <ul style="list-style-type: none"> • पत्र लेखन – अनौपचारिक (अपने पालतू पशु को, मित्र, या सहपाठी, पारिवारिक सदस्य को) 	<ul style="list-style-type: none"> तुकबंदियाँ बनाकर लिखने के लिए कहें। (फूल, वर्षा, बादल, मोर, गिलहरी, गेंद, माँ आदि विषयों पर)। ➤ किसी व्यंजन को बनाने की विधि बताएँ और लिखने को कहें। ➤ बच्चों से चित्र, कहानी, कविता से संबंधित चित्र बनवाएँ। उनके द्वारा बनाए गए चित्रों को प्रदर्शित करें। ➤ चित्र और कार्टूनों को देखकर बच्चों से उसका वर्णन अलग-अलग विधाओं में करवाएँ। जैसे – कविता, कहानी, संवाद आदि। ➤ समाचार पत्रों से सामाजिक जागरूकता से संबंधित विज्ञापन पढ़वाएँ और उनपर चर्चा करें, जैसे – पल्स-पोलियो अभियान, स्वच्छता अभियान, वन महोत्सव, जल-संरक्षण, पर्यावरण, प्रदूषण आदि। ➤ पाठ्य – सामग्री में से संज्ञा, सर्वनाम, विशेषण और क्रिया शब्दों को छँटवाएँ। ➤ वाक्य में कर्ता और कर्म की पहचान करवाएँ जैसे – अक्षिता खाना खाती है - वाक्य में ‘अक्षिता’ कर्ता और ‘खाना’ कर्म है। ➤ बच्चों को काल की जानकारी दें और वाक्यों में पहचान करवाएँ। ➤ थिएट्रिकल एवं चित्रकारी से संबंधित गतिविधियों के माध्यम से विशेषण का अभ्यास करवाएँ। ➤ शब्द – संपदा में वृद्धि के लिए विभिन्न भाषायी खेल करवाएँ जैसे – वर्गपहेली से शब्द बनाना, विलोम छँटना, समानार्थी शब्दों से वर्ग पहेली भरना आदि। शब्द – सीढ़ी, शब्द – लड़ी आदि। ➤ अनेकार्थी शब्दों का भिन्न – भिन्न अर्थों में वाक्य प्रयोग करवाएँ करवाएँ, जैसे – आम – एक फल, साधारण फल – खाने वाले फल और नतीजा या परिणाम। 	

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> • अनुच्छेद लेखन • अनुभव लेखन – भ्रमण, अवलोकन आदि के अनुभव 	<ul style="list-style-type: none"> ➤ अनुच्छेद लिखवाएँ, जैसे – मेरी पहली बस यात्रा, विद्यालय में खाने की छुट्टी, खेल के मैदान की कोई याद, घर का प्रिय कोना, कक्षा का पहला दिन, मेरा नया मित्र आदि। ➤ बच्चों को पत्रों का प्रारूप समझकर अलग-अलग विषयों पर पत्र लेखन करवाएँ। विराम चिह्नों और वर्तनी पर विशेष ध्यान दिलवाएँ। ➤ बच्चों को किसी स्थान की यात्रा, घटना आदि से संबंधित अनुभव लिखने को कहें। 	

थीम 1: सुनना और बोलना

बच्चे भाषण, कहानी, नाटक, कविता और अब वक्तव्य आदि को ध्यानपूर्वक सुन कर समझते हैं। सुनी गई सामग्री के मुख्य भाव और सार को स्पष्ट उच्चारण के साथ बताते हैं। सामूहिक क्रियाओं के लिए निर्देशों को सुनकर क्रमवार उनका पालन करते हैं। सुनी गई कहानी, कविता और अपने अनुभवों को प्रवाहपूर्ण भाषा में सुनाते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ पूर्व कक्षाओं में अर्जित कौशलों का सहज उपयोग कर सकेंगे और दिन-प्रतिदिन के जीवन की आवश्यकताओं के अनुसार उनका विस्तार कर सकेंगे।
- ✓ सरल वक्तव्यों और भाषणों को सुनकर समझ सकेंगे।
- ✓ किसी क्रियाकलाप को करने के लिए दिए गए क्रमवार निर्देशों को सुनकर समझ सकेंगे और उनका पालन कर सकेंगे। खेल के मैदान में सांस्कृतिक आयोजनों आदि पर निर्देश दे सकेंगे।
- ✓ समसामयिक विषयों पर आयोजित समूह चर्चाओं में भाग लेंगे और अपने तर्कसम्मत विचार स्पष्ट रूप से प्रस्तुत कर सकेंगे।
- ✓ प्रश्नों को ध्यान से सुनकर समझ सकेंगे और उनका तर्कसम्मत उत्तर दे सकेंगे।
- ✓ किसी घटना, कहानी, प्रसंग विशेष का प्रत्यास्मरण कर सुना सकेंगे।
- ✓ अधूरी कहानी को अपनी कल्पना, अनुभवों के आधार पर पूरा कर सकेंगे।
- ✓ तुकबंदी वाली कविताओं को आगे बढ़ा सकेंगे।
- ✓ समाचार पत्र के समाचार पढ़कर प्रातः कालीन सभा में सुना सकेंगे।
- ✓ रेडियो / मोबाइल फ़ोन / कंप्यूटर आदि द्वारा सुनाए जा रहे संवाद को ध्यान से सुनकर अपने अनुमान से वस्तुस्थिति का पूरा परिचय दे सकेंगे।
- ✓ अपने सहपाठियों के घरों में तथा आसपास के परिवेश में बोली जाने वाली अनौपचारिक भाषा तथा विद्यालय की औपचारिक भाषा के अंतर को पहचान सकेंगे।

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ सरल वक्तव्य और भाषण ➤ कहानी / घटना / तथ्यों का संग्रह और प्रत्यास्मरण ➤ कक्षा / प्रातः कालीन सभा में समाचारों का श्रवण ➤ दैनिक समाचार ➤ बाल-साहित्य से ली गई विभिन्न विषयों की कहानियाँ 	<ul style="list-style-type: none"> ➤ अतिथियों को आमंत्रित करके वक्तव्य / भाषण का आयोजन करवाएँ। ➤ वक्तव्य / भाषण ऑडियो / वीडियो द्वारा भी सुनवाएँ। ➤ कहानियाँ सुनाएँ / पढ़वाएँ। अधूरी कहानी को अपनी कल्पना और अनुभवों के आधार पर पूरा करने के लिए कहें। ➤ बच्चों को पुस्तकालय का लाभ उठाने के लिए प्रेरित करें। 	<ul style="list-style-type: none"> ➤ सी०डी० ➤ ऑडियो / वीडियो ➤ वीडियो क्लिपिंग ➤ समाचार पत्र ➤ बाल – साहित्य

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ समसामयिक विषय जैसे – प्रदूषण, जल संकट, त्योहार ➤ विद्यालय के नियम, खान – पान की बदलती तस्वीर (फास्ट फूड), वायरल फीवर – बचाव के तरीके आदि पर चर्चा ➤ रोचक संस्मरण ➤ पाठों एवं उनसे इतर पठन सामग्री पर प्रश्न-उत्तर 	<ul style="list-style-type: none"> ➤ कहानी को नाटक के रूप में प्रस्तुत करवाएँ। ➤ सामूहिक चर्चा का आयोजन करवाएँ। ➤ वीडियो क्लिपिंग दिखाकर भी सामूहिक चर्चा का अवसर दें। (छोटे समूह में, बड़े समूह में, चर्चा के अवसर दिए जाएँ)। ➤ बच्चों को अपने परिवार, मित्र या आस-पड़ोस के रोचक संस्मरण सुनाने के लिए प्रेरित करें। ➤ पाठों एवं उनसे इतर पठन सामग्री पर मौखिक प्रश्न-उत्तर सत्र का आयोजन करें। ➤ बच्चों द्वारा संकलित तथ्यों / कहानियों / प्रसंगों को साझा करने के अवसर प्रदान करें। ➤ समाचार पत्रों से प्रातःकालीन सभा में समाचारों का वाचन करवाएँ। 	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चे हस्तलिखित और मुद्रित सामग्री को समझकर पढ़ते हैं। उसके मुख्य भाव तथा सार को अपने शब्दों में लिखते हैं। वे अनुच्छेद, औपचारिक और अनौपचारिक पत्र लिखने लगते हैं। **मुहावरों को समझकर उनका प्रयोग करते हैं। उनके शब्द – भंडार में तेजी से वृद्धि होती है।**

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ पूर्व की कक्षाओं में अर्जित कौशलों का सही प्रयोग कर सकेंगे।
- ✓ सुनी और पढ़ी कहानी से अपने संस्मरण जोड़कर लिख एवं पढ़कर सुना सकेंगे।
- ✓ सुनी और पढ़ी कहानी को अपने शब्दों में लिख सकेंगे और पढ़कर सुना सकेंगे।
- ✓ बाल साहित्य और पत्रिकाओं से कविताएँ, कहानियाँ, नाटक आदि विराम चिह्नों का ध्यान रखते हुए उचित बलाघात व अनुतान से पढ़कर सुना सकेंगे।
- ✓ सुनी और पढ़ी कहानी के आधार पर पूछे गए 'क्यों' और 'कैसे' प्रश्नों के उत्तर लिख सकेंगे। स्वयं तरह – तरह से प्रश्न बना सकेंगे। जैसे –
 - पठन क्षमता का आकलन करने वाले प्रश्न।
 - कहानी को विस्तार देने वाले प्रश्न।
 - तर्क प्रस्तुत करने वाले प्रश्न।
- ✓ अधूरी कहानी पूरी कर के लिख सकेंगे और पढ़कर सुना सकेंगे।
- ✓ स्थानीय समुदाय के किसी व्यक्ति (उल्लेखनीय) कारीगर, श्रमिक आदि से भेंटवार्ता के लिए प्रश्नावली तैयार कर सकेंगे और भेंटवार्ता की कार्यवाही को लिखित रूप से दर्ज कर सकेंगे।
- ✓ दूसरों की लिखी हस्तलिखित सामग्री को पढ़ सकेंगे।
- ✓ वाक्य संरचनाओं को समझ सकेंगे और दिए गए विषय पर अनुच्छेद तथा अनौपचारिक और औपचारिक पत्र लिख सकेंगे (वर्तनी और विराम चिह्नों का ध्यान रखते हुए) रचनात्मक लेखन कर सकेंगे।

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ विभिन्न विषयों जैसे – साहस, देशभक्ति, वीरता, बलिदान, जीवन-मूल्यों, प्रेम, संवेदनशीलता आदि की कहानियों का पठन एवं लेखन ➤ स्थानीय समुदाय के महत्वपूर्ण व्यक्ति, कारीगर, श्रमिक आदि से भेंटवार्ता के लिए प्रश्न – निर्माण ➤ हस्तलिखित सामग्री पठन 	<ul style="list-style-type: none"> ➤ विभिन्न विषयों की कहानियाँ विराम चिह्नों और उचित अनुतान के साथ बच्चों से पढ़वाएँ। ➤ कहानियों की घटनाओं, पात्रों आदि के प्रति प्रतिक्रिया प्रकट करने को कहें। ➤ कहानियों से संबंधित – प्रश्नों के उत्तर लिखने को कहें। ➤ कहानी के बारे में उनसे प्रश्न बनवाएँ। बच्चों से अधूरी कहानी को लिखकर पूरा करने के लिए कहें। 	<ul style="list-style-type: none"> ➤ बाल साहित्य ➤ पत्र – पत्रिकाएँ ➤ व्याकरण के चार्ट, कार्ड, पोस्टर ➤ सी०डी० ➤ ऑडियो / वीडियो ➤ भाषायी खेल – वर्ग – पहेली, शब्द – सीढ़ी आदि

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<p>संदर्भ में व्याकरण</p> <ul style="list-style-type: none"> ➤ पूर्व की कक्षाओं में सीखी गई व्याकरणिक संरचनाओं की पहचान एवं प्रयोग की गतिविधियाँ ➤ संज्ञा के भेदों – व्यक्तिवाचक, जातिवाचक, एवं भाववाचक की पहचान ➤ सर्वनाम की पहचान एवं व्यावहारिक प्रयोग ➤ विशेषण एवं क्रिया का प्रयोग ➤ लिंग और वचन की पहचान एवं अनुप्रयोग और परिवर्तन ➤ अनेक शब्दों के लिए एक शब्द ➤ समानार्थी शब्द / अनेकार्थी शब्द ➤ रचनाओं में आए मुहावरे रचनात्मक लेखन ➤ अनुच्छेद लेखन - लगभग 80 शब्द - <ul style="list-style-type: none"> ☛ चित्र आधारित ☛ निर्देशित ➤ रोचक एवं कल्पनाशीलता का पोषण करने वाले विषय, जैसे – <ul style="list-style-type: none"> ☛ यदि मैं तितली बन जाऊँ, यदि आकाश में दो चंद्रमा आ जाएँ, चौथी कक्षा में मेरा पहला दिन, वर्षा और सड़कों पर जमा होता पानी, मेरा मनपसंद खेल आदि ➤ पत्र लेखन - अनौपचारिक (संबंधियों, मित्रों को पत्र, जैसे अपनी पढ़ाई के बारे में बताना, जन्मदिन पर निमंत्रण, बधाई देना आदि) 	<ul style="list-style-type: none"> ➤ सभी बच्चों से अपनी – अपनी कहानी का वाचन करवाएँ। ➤ भेंटवार्ता के लिए प्रश्न सूची तैयार करवाएँ। ➤ भेंटवार्ता से प्राप्त जानकारी बच्चों से लिखकर लाने को कहें। ➤ बच्चों को एक दूसरे की लिखित सामग्री पढ़कर सुनाने को कहें। ➤ पाठ्य – सामग्री में संज्ञा, सर्वनाम, विशेषण, क्रिया आदि शब्दों की पहचान करवाएँ और बच्चों से छाँटने के लिए कहें। ➤ छाँटे गए संज्ञा शब्दों के भेदों की पहचान करवाएँ। ➤ लिंग और वचन की पहचान करवाएँ। यह कार्य सिर्फ शब्दों से न करवाया जाए बल्कि समूचे वाक्य के आधार पर करवाया जाए। जैसे – <ul style="list-style-type: none"> ☛ एक लड़का मेरी कक्षा में आया। ☛ एक लड़की मेरी कक्षा में आई। ☛ फूल पर तितली बैठी है। ☛ फूल पर तितलियाँ बैठी हैं। ➤ इसी प्रकार काल, क्रिया आदि का अभ्यास पूरे – पूरे वाक्यों में करवाएँ। ➤ अनेकार्थी शब्दों के अभ्यास वाक्य में करवाएँ जैसे - <ul style="list-style-type: none"> ☛ मेरे मित्र ने फूलों से सुंदर हार बनाया। ☛ वह खेल में हार गया। ➤ पाठ्य सामग्री में प्रयुक्त मुहावरों की ओर संकेत करें और बच्चों से वाक्य बनवाएँ जिसमें उनका अर्थ स्पष्ट हो। ➤ बच्चों को औपचारिक और अनौपचारिक पत्रों का प्रारूप लिखकर बताएँ। ➤ उचित विराम चिह्नों का प्रयोग करते हुए छोटे छोटे अनुच्छेदों में पत्र लिखने को कहें। ➤ बच्चों के लिखे पत्रों को बुलेटिन बोर्ड पर प्रदर्शित करें। ➤ चित्र देखकर उस पर एक अनुच्छेद लिखने के 	<ul style="list-style-type: none"> ➤ चित्र ➤ बुलेटिन बोर्ड

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
➤ औपचारिक (प्रधानाध्यापक या कक्षाध्यापक को अवकाश के लिए प्रार्थना पत्र, गमला टूटने पर क्षमा – याचना पत्र)	लिए कहें। कुछ शब्द देकर अनुच्छेद लिखवाएँ। कल्पनाशक्ति व सोच को विकसित करने वाले विषयों पर बच्चों से अनुच्छेद लिखवाएँ। बच्चे अपनी लिखित सामग्री पढ़कर सुनाएँ। बच्चों के लेखन को बुलेटिन बोर्ड पर प्रदर्शित करें।	

थीम 1: सुनना और बोलना

बच्चे अपने आस-पास की परिस्थितियों एवं परिवेश का अवलोकन करते हैं और अपने अनुभवों और विचारों को मौखिक रूप से अभिव्यक्त करते हैं। टी०वी०, रेडियो आदि पर विभिन्न कार्यक्रम सुनकर – देखकर उनपर अपनी समझ बनाते हैं। अतिथियों के भाषण आदि सुनकर भी समझते हैं। स्थिति और संदर्भ के अनुकूल औपचारिक या अनौपचारिक भाषा का प्रयोग करते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ विद्यालय में आयोजित प्रतियोगिताओं और समारोहों में प्रस्तुत कविता पाठ, कहानी कथन, नाटक, वाद – विवाद, भाषण आदि को समझते हुए सुन सकेंगे।
- ✓ पठन सामग्री को सुनकर निष्कर्ष निकाल सकेंगे और अपना मत बना सकेंगे।
- ✓ किसी विषय सामग्री को सुनकर उसकी मुख्य बातें और विचारों को समझ सकेंगे तथा उसमें कार्य-कारण संबंध स्थापित कर सकेंगे।
- ✓ सुनी गई विषय वस्तु के आधार पर क्यों, कैसे, कब, कहाँ, अनुमान आदि प्रश्नों के उत्तर स्पष्ट उच्चारण के साथ पूरे – पूरे वाक्यों में दे सकेंगे।
- ✓ बोलने के शिष्टाचार का पालन कर सकेंगे।
- ✓ किसी कार्य या गतिविधि विशेष के लिए दिए गए निर्देशों को समझेंगे तथा साथियों को निर्देश व संदेश दे सकेंगे।
- ✓ समूह चर्चाओं में भाग ले सकेंगे।
- ✓ स्थिति और संदर्भ के अनुकूल औपचारिक या अनौपचारिक भाषा का प्रयोग कर सकेंगे।
- ✓ अपने अनुभवों, भावनाओं, विचारों, एवं मतों को प्रवाह के साथ अपनी भाषा में अभिव्यक्त कर सकेंगे।

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ विभिन्न की परिस्थितियाँ एवं परिवेश का संदर्भ ➤ अपने अनुभवों, भावनाओं, विचारों एवं मतों की मौखिक अभिव्यक्ति ➤ दूसरों के अनुभव, भावनाओं, विचारों एवं मतों का श्रवण ➤ किसी विषय पर स्वतंत्र रूप से बातचीत (कोई त्योहार, टी०वी०, प्रोग्राम, खेल की सामग्री की उपलब्धता आदि) 	<ul style="list-style-type: none"> ➤ आस-पास के परिवेश और परिस्थितियों का अवलोकन करने के अवसर दें। बच्चों को प्रश्न पूछने और परिकल्पनाएँ करने के लिए प्रेरित करें। ➤ अपने अनुभव, भावनाओं, विचारों और मतों को तार्किक रूप से प्रस्तुत करने के लिए कहें। ➤ बोलने और सुनने के शिष्टाचार का कक्षा में पालन करवाएँ। बच्चे उत्साह रुचि और धैर्य से दूसरों के अनुभव, विचारों और मतों को सुनें और समझें। ➤ कक्षा में बातचीत का आयोजन करें और बच्चों को उसमें स्वतंत्र रूप से खुल कर हिस्सा लेने और अपने विचार प्रकट करने का अवसर दें तथा 	<ul style="list-style-type: none"> ➤ ऑडियो सी०डी०, बाल साहित्य – कहानी, कविता, एकांकी, नाटक, संवाद आदि ➤ पहेलियों का संग्रह ➤ मुखौटे ➤ समाचार पत्र

सुनना और बोलना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ बोलने का शिष्टाचार ➤ कहानी, कविता पर चर्चा ➤ अपने साथियों को मौखिक रूप से दिए गए निर्देश ➤ किसी समूह टोली को किसी काम की प्रक्रिया का स्पष्टीकरण ➤ सवाल, पहेलियों और समस्याओं को हल करने के अपने तरीकों की मौखिक अभिव्यक्ति ➤ मूक अभिनय, एकांकी, नाटक में अभिनय एवं संवाद ➤ श्रुतभाव – ग्रहण के लिए विषय-सामग्री ➤ 'क्योंकि', 'इसलिए' व 'कैसे' का उपयोग का विवरण ➤ अंतर / समानता बताने के लिए 'जबकि' का प्रयोग ➤ किसी विषय सामग्री को सुनकर मुख्य बातों की समझ तथा अपने शब्दों में कथन ➤ वक्तव्य ➤ समाचार ➤ साक्षात्कार 	<ul style="list-style-type: none"> प्रोत्साहित करें। ➤ किसी गतिविधि या क्रियाकलाप के लिए अपने साथियों को मौखिक रूप से निर्देश देने को कहें और अवलोकन करें कि साथी निर्देशों को सुनकर उनका सही ढंग से पालन कर रहे हैं। ➤ बच्चों से पहेलियाँ पूछें और उन्हें बोलने के लिए प्रोत्साहित करें। ➤ मूक अभिनय करवाएँ। ➤ एकांकी या नाटक का अभिनय करवाएँ। बच्चे पात्रों के मुखौटे भी बना सकते हैं। उन्हें अपनी ओर से संवाद जोड़ने और बोलने को प्रोत्साहित करें। ➤ किसी विषय पर दो पात्रों को आपस में काल्पनिक संवाद बनाकर बोलने के लिए प्रोत्साहित करें। जैसे – सड़क पर बैठी दो गायों के बीच संवाद, खंभे और पेड़ के बीच संवाद, बच्चे और उसके पालतू पशु के बीच संवाद आदि। ➤ सुनी गई विषय सामग्री के आधार पर बच्चों से क्यों, कैसे आदि वाले प्रश्न पूछें तथा उन्हें कारण बताते हुए तथा विवरण देते हुए उत्तर देने के लिए प्रेरित करें। ध्यान दें कि बच्चे 'क्योंकि', 'इसलिए', 'जबकि' आदि का प्रयोग करते हुए स्पष्ट रूप से उत्तर दें। ➤ बच्चों से सुनी गई सामग्री की मुख्य बातों को कक्षा में बोलकर बताने के लिए प्रेरित करें। ➤ बच्चों को सुने गए समाचार आपस में साझा करने या एक दूसरे को सुनाने के लिए कहें। ➤ विद्यालय के किसी कर्मचारी, पास-पड़ोस के किसी प्रिय या महत्वपूर्ण व्यक्ति से साक्षात्कार और प्राप्त जानकारी को कक्षा में बोलकर सुनाने को प्रेरित करें। ➤ सरल विषय पर एक मिनट कक्षा के बच्चों के सामने वक्तव्य देने को कहें। 	

थीम 2: पढ़ना एवं लिखना (पठन एवं लेखन कौशल)

बच्चे, कहानी, कविता, अनुच्छेद, विवरण, विज्ञापन, संदेश को सही उतार-चढ़ाव तथा विराम-चिह्नों का ध्यान रखते हुए पढ़ते हैं और समझते हैं। चित्र, नक्शा, तालिका आदि को भी पढ़कर समझते हैं। पठित सामग्री के प्रश्नोत्तर, सार, विवरण आदि को अपने शब्दों में लिखते हैं। रचनात्मक लेखन जैसे – अनुच्छेद, निबंध, पत्र, संवाद, कहानी, कविता, चित्र-लेखन आदि करने में रुचि लेते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- ✓ अलग-अलग तरह के लेखन जैसे – कहानी, कविता, नाटक, विवरण, चुटकुले, दोहे, चित्र, रेखाचित्र, निर्देश, नक्शे आदि को समझते हुए उचित प्रवाह व उच्चारण के साथ पढ़ सकेंगे।
- ✓ उच्चरित और लिखित भाषा के बीच के अंतर को समझ सकेंगे।
- ✓ मौन पठन कर सकेंगे।
- ✓ समाचार पत्र आदि में दिए गए विवरण एवं विज्ञापनों को पढ़कर समझ सकेंगे और उस पर चर्चा कर सकेंगे।
- ✓ पाठ्य सामग्री को पढ़ कर समझ सकेंगे और उसके आधार पर प्रश्नों के उत्तर लिख सकेंगे।
- ✓ पाठ्य सामग्री की मुख्य बातों और सार को अपने शब्दों में लिख सकेंगे।
- ✓ कहानी, कविता, विवरण, वस्तु, स्थान, घटना, परिस्थिति, अनुच्छेद को पढ़कर उसके मूल भाव को ग्रहण करेंगे और उस पर चित्र बना सकेंगे।
- ✓ लिखित सामग्री के संदर्भ में आए चित्रों, रेखाचित्रों, छायाचित्रों का अवलोकन करते हुए लिखित सामग्री के साथ उसका संबंध जोड़ सकेंगे।
- ✓ चित्रों के आधार पर रचनात्मक लेखन कर सकेंगे।
- ✓ पढ़ी - सुनी गई कहानियों को नाटक / संवाद के रूप में लिख सकेंगे।
- ✓ आवश्यकता एवं स्थिति के अनुसार औपचारिक एवं अनौपचारिक पत्र, अनुच्छेद, संवाद, कहानी, कविता आदि लिख सकेंगे।

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ लेखन के विभिन्न रूपों की समझ ➤ कहानी, कविता, अनुच्छेद, विवरण, संदेश, निर्देश व विज्ञापन का पठन ➤ मौन पठन एवं सस्वर वाचन ➤ पठित सामग्री के आधार पर प्रश्नों के उत्तर का लेखन 	<ul style="list-style-type: none"> ➤ स्तर के अनुकूल ऐसा बाल-साहित्य एवं लिखित सामग्री उपलब्ध करवाएँ जिससे बच्चे लेखन के विविध रूपों को पढ़ सकें और पहचान सकें। ➤ बच्चों से निर्देशित मौन पठन करवाएँ जिससे उन्हें ध्यानपूर्वक पढ़ने और विशेष जानकारी प्राप्त करने के उद्देश्य से पढ़ने का अभ्यास हो जाए। ➤ सही उच्चारण के साथ भावपूर्ण सस्वर वाचन 	<ul style="list-style-type: none"> ➤ बाल-साहित्य, ऑडियो, वीडियो, पत्र-पत्रिकाएँ, प्रपत्र, चार्ट, बुलेटिन बोर्ड, वर्ग-पहेली, शब्द-सीढ़ी ➤ व्याकरण चार्ट ➤ फ़्लैश कार्ड ➤ कार्य प्रपत्र

पढ़ना एवं लिखना

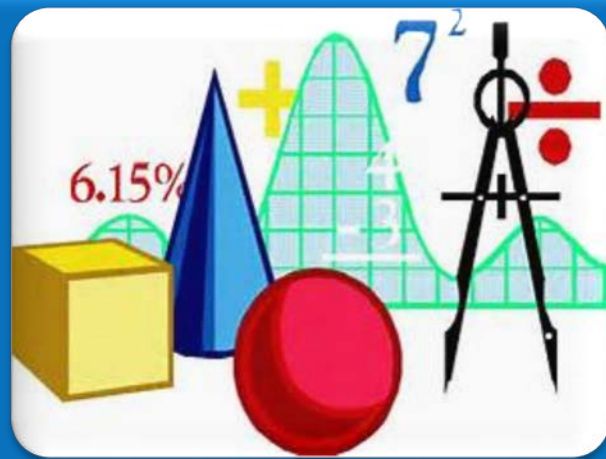
सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ पाठ्य सामग्री की मुख्य बातों का रेखांकन एवं अपने शब्दों में लेखन ➤ पाठ / अनुच्छेद / विवरण का सार लेखन ➤ कहानी, कविता, विवरण, वस्तु, स्थान, घटना परिस्थिति, अनुच्छेद का पठन एवं उसके आधार पर चित्रकारी ➤ लिखित निर्देशों का पठन, उसके अनुसार क्रियान्वयन ➤ लिखित सामग्री के संदर्भ में आए चित्रों, रेखाचित्रों, छायाचित्रों, का पठन और लिखित सामग्री से उनके जुड़ाव के प्रति समझ ➤ अपने अनुभव, विचारों, इच्छाओं, भावना की लिखित अभिव्यक्ति ➤ छोटी-छोटी कहानियों का नाट्य रूपांतरण लिखित रूप में ➤ अपने और दूसरों के अनुभवों की लिखित में तुलना <p style="text-align: center;">संदर्भ में व्याकरण</p> <ul style="list-style-type: none"> ➤ संज्ञा, सर्वनाम, विशेषण, क्रिया-भेद सहित ➤ पाठ्य-सामग्री में प्रयुक्त उपसर्ग / प्रत्यय वाले शब्द 	<p>करवाएँ।</p> <ul style="list-style-type: none"> ➤ पठन सामग्री के आधार पर प्रश्नों पर चर्चा करें और लिखने के लिए प्रेरित करें। ➤ बच्चों से पढ़ी गई सामग्री का केंद्रीय भाव और सार लिखवाएँ। ➤ पठित सामग्री के आधार पर बच्चों से चित्र बनाने को कहें। ➤ लिखे गए निर्देशों को पढ़वाएँ और देखें कि बच्चे निर्देशानुसार कार्य कर रहे हैं। ➤ इस बात पर ध्यान दें कि पाठ में आए चित्रों / छायाचित्रों के साथ लिखित सामग्री का संबंध जोड़ सकें। ➤ घर, खेल का मैदान, कक्षा, बाज़ार, बस आदि से जुड़े अपने अनुभवों को लिखें और एक-दूसरे से साझा करें। ➤ कहानियों का नाट्य रूपांतरण कर उसका अभिनय करने को कहें। ➤ समाचार पत्र और पत्रिकाओं से लेख और विवरण पढ़ने के लिए कहें। ➤ पठन सामग्री में से संज्ञा, सर्वनाम, विशेषण और क्रिया के भेदों की पहचान करवाएँ। ➤ उपसर्ग-प्रत्यय वाले शब्दों को चुनकर मूल शब्द और उपसर्ग / प्रत्यय की पहचान करवाएँ, जैसे – <p>उपसर्ग शब्द</p> <ul style="list-style-type: none"> • विजय = वि जय • अजय = अ जय <p>प्रत्यय शब्द</p> <ul style="list-style-type: none"> • समानता = समान ता • भारतीय = भारत ईय <ul style="list-style-type: none"> ➤ पाठ्य-सामग्री कुछ सामासिक शब्द चुनकर अभ्यास करवाएँ। • राष्ट्रपति = राष्ट्र + पति • विद्यालय = विद्या + आलय 	

पढ़ना एवं लिखना

सुझावित विषय / क्षेत्र	सुझावित शिक्षण-अधिगम प्रक्रिया	सुझावित अधिगम स्रोत
<ul style="list-style-type: none"> ➤ पाठ्य-सामग्री में प्रयुक्त सामासिक शब्द ➤ अनुस्वार और अनुनासिक ➤ परसर्गों का प्रयोग ➤ काल ➤ योजकों का प्रयोग ➤ विराम-चिह्न ➤ मुहावरे रचनात्मक लेखन ➤ निबंध ➤ पत्र-लेखन ➤ संवाद-लेखन ➤ कहानी लेखन ➤ चित्र-लेखन ➤ कविता-लेखन ➤ अपठित-गद्यांश 	<ul style="list-style-type: none"> ➤ अनुस्वार और अनुनासिक के प्रयोग वाले शब्द छटवाएँ और उनमें अंतर स्पष्ट करें। ➤ परसर्गों की समझ और प्रयोग के लिए अभ्यास करवाएँ। पठन और लेखन में उचित विराम-चिह्नों के प्रयोग पर ध्यान दिलवाएँ, जैसे – रुको, मत जाओ। रुको मत, जाओ। ➤ पाठ्य-सामग्री में प्रयुक्त मुहावरों का उचित संदर्भों में वाक्य प्रयोग करवाएँ। ➤ निबंध लेखन के लिए बच्चों के परिवेश से जुड़े विषयों पर निबंध लिखने को कहें। ➤ औपचारिक और अनौपचारिक पत्रों का प्रारूप स्पष्ट करके विषय देकर पत्र लेखन करवाएँ। ➤ बच्चों को संवाद, कविता, कहानी और चित्र लेखन करने के लिए प्रोत्साहित करें। ➤ बच्चों के कार्य को बुलेटिन बोर्ड पर प्रदर्शित करें। 	

MATHEMATICS

Mathematics

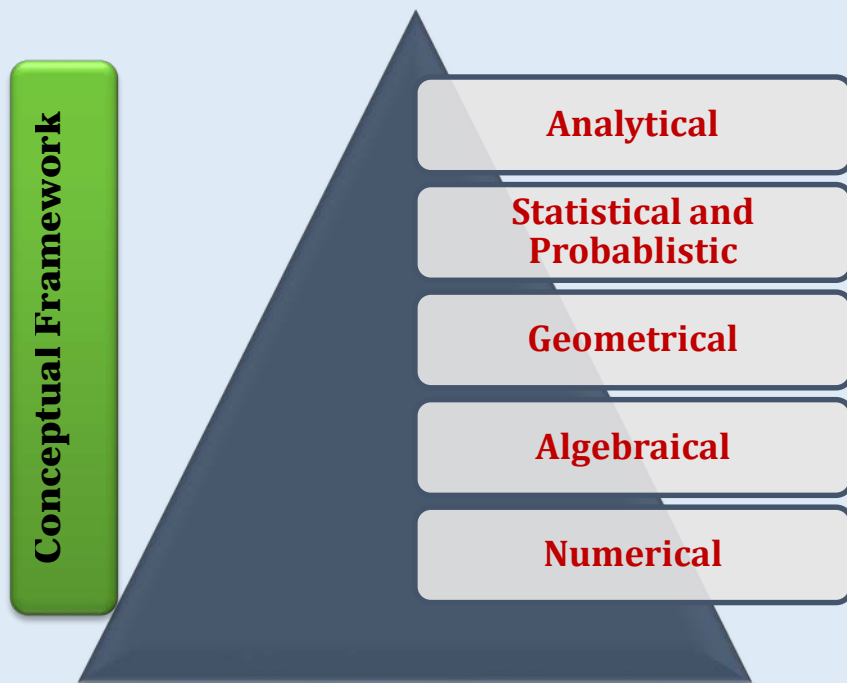


The curriculum and the teaching strategies in the initial stages of the Primary level must address the complex needs of all children to acquire number sense, develop ideas of addition through combining of two collections, subtraction through take away, develop spatial sense and understand the relationships between objects and location in a three dimensional world, realize the need for units to measure, and explores data through first hand observations. Keeping these in focus the curriculum for these classes has been organized through various topics that have strong interconnections.

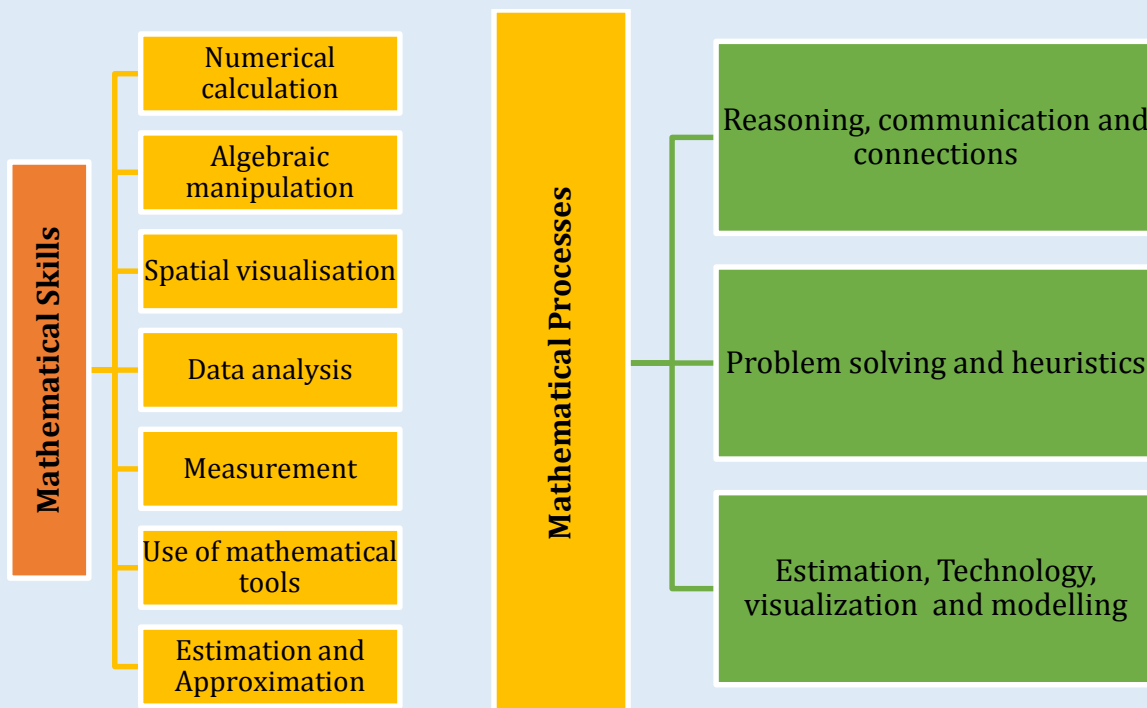
Objectives of teaching-learning Mathematics at the Primary Level

Mathematics education aims to enable children to:

- develop the mathematical thinking and problem solving skills and apply these skills to formulate and solve problems;
- acquire the necessary mathematical concepts and skills for everyday life, and for continuous learning in mathematics and related disciplines;
- develop the necessary process skills for the acquisition and application of mathematical concepts and skills;
- recognise and use connections among mathematical ideas, and between mathematics and other disciplines;
- create love and interest towards mathematics;
- make effective use of a variety of mathematical tools (including information and communication technology tools) in the learning and application of mathematics;
- design imaginative and creative work arising from mathematical ideas;
- reason logically, communicate mathematically, and learn cooperatively and independently;
- argue critically and create newer knowledge.



The present Mathematics curriculum at the primary level aims to develop a number of mathematical skills and processes among children in Classes I-V as presented in the diagram below:



Curriculum for classes I to V is designed to ensure that children build a solid foundation in mathematics by connecting and applying mathematical concepts in a variety of ways. To support this process, teachers will, whenever possible, integrate concepts from various themes and apply mathematics to real-life situations in children's daily lives.

Major Themes

The major themes to be covered from Classes I to V are outline briefly below:

Numbers

The primary goal of early mathematics exposure and education is to help children develop number sense that means understanding of numbers that allows children to estimate answers and determine reasonableness in numerical situations. Number sense is developed through the questions that arise in children's daily life context that motivate children to examine whether their answers and estimates make sense. The idea of numbers through child's need for counting and extending the single digit numbers to double digit numbers and numerals and counting in groups of tens and ones for place value system all of which are included in the curriculum. Ultimately all children should learn that numbers are an abstract quality of collections which can be represented in pictures and with symbols, or numerals. The same numbers have several possible representations and is in relationship with other counting numbers like 15 is one ten and five ones, 1 and 14, 2 and 13,, 1 less than 16, 2 less than 17, etc.

Number Operations

Most of the mathematics curriculum centered on algorithms to add and subtract whole numbers. Children are expected to practice these algorithms for a period of time. Later they are asked to apply the algorithm to solve some non-contextual problems. Then they move on to different types of additions and subtraction such as using regrouping, or both operations together. But now the number operations are only one part of the expended curriculum and the main goal behind everything learnt is creativity and development of newer ways of problem solving techniques.

Playing with Numbers

There are many patterns and properties of numbers that group numbers into many categories. Such classifications can be made on the basis of multiplication and division. Children obtain these properties on exploratiOn and playing with whole numbers. Some of these classifications are even and odd, factors and multiplications, prime and composite and square and triangular numbers. Children work with numbers and enjoy exploring that is why these processes are called playing with numbers.

Negative Numbers

Most children have experiences in which they need negative numbers like measuring temperature in cold climate, giving numbers to profit and loss, distance in opposite directions on a number line with reference to a point of reference called origin. The symbol + (plus) and – (minus) with numeral designate positive and negative integers. The systematic study of Integers as part of the number system is included at the upper primary stage. However, a beginning of this study is taken up in class V with an introduction to negative numbers, their properties and usability in daily life.

Geometry

Geometry provides strong connection to world we live in. Our daily life experiences on arts, architecture, space exploration, construction, clothing and automobile etc. are included in both practical and aesthetic aspects of geometry. These topics can be used to develop children's geometrical knowledge and skills, spatial sense, and problem solving abilities. The sub areas of geometry equip children to describe geometrical forms, search for patterns, organize data, and draw conclusions. Many topics and skills in elementary school build upon children's spatial sense. Spatial sense also called spatial perception or spatial visualization helps children understand the relationship between objects and their locations in a three dimensional world. Dutch Mathematicians Dina van Heile- Geldof and Pierre Marie Heile clubbed the learning of geometry for a child in five stages:

Stage 0: Visualisation includes recognition and naming of shapes.

Stage 1: Analysis, includes describing the attributes of shapes.

Stage 2: Informal Deduction i.e. classifying and generalizing by attributes.

Stage 3: Deduction to develop proofs using axioms and definitions.

Stage 4: Rigor, generate proofs using various methods.

The first three stages occur during the elementary school years. The children progress from one stage to another on the basis of the experiences and exposure they acquire. In this school curriculum that is further distributed in various classes, these learning stages of geometry have been taken care off. Child's learning about the recognition and naming of various 2-D and 3-D shapes starts from a very early age rather, from the age zero. That is why the Van Heile stages have been marked 0 to 4 and not from 1 to 5. The textual material and the classroom interaction should provide learning experiences that connect the out of school experiences.

Measurement

Measurement is a part of the everyday events in every child's life that all children encounter in many ways, such as- weighing and taking temperature by thermometer, measuring cloth or wire, buying something, pouring water or other drinks into a glass or checking the television schedule. By building on measurement experiences, children with the help of teachers, develop the mathematical concepts and skills needed to be a thoughtful consumer and user of measurement. Activities begin in preschool as children compare the length, area, capacity, and weight (mass) of familiar objects and containers.

Data Handling

In the present times, a lot of information is provided to public in tabular and graphic forms. It is therefore, important that children acquire both the insight and ability to organize data and use tables and graphs effectively as valuable tools in problem solving and reasoning. Children's early classification, sorting, and organizing activities develop a foundation for understanding tables and graphs. Children should build their own tables and graphs to further their understanding and skill in interpreting them. All information that the child has had in her/his daily life experiences can be important resources to acquire and enhance data handling.

Patterns

Patterns abound in everyday life. People organize their work and home activities around patterns. The inclusion of patterns in the elementary school encourages children to develop the habit of looking for and using patterns in their search for meaning in mathematics. Mathematics is infused with patterns in numbers, measurement, geometrical ideas and data. Observing a pattern, looking for a rule to generalize it, verification of the rule and finally searching for a proof for validity of the rule form the sequence of development of mathematical results. Early school mathematics should include the patterns that a child can easily see in her/his daily life.

Theme 1: Numbers

"Numbers' enable children to classify, recite, count, compare and recognize numbers from 1 to 20. They learn to write numerals and number names from 1 to 99. Pre-number concepts like classification, seriation and one to one correspondence play an important role in their learning numbers, numeration and making numbers a part of their daily life activities. Children acquire an understanding about these at home too. However, reciting number names in an order and recognizing some numerals are the only tasks that some children can do with varying competence when they enter formal schooling. Thus, the Class I curriculum focuses on developing number sense through the contexts that children are in. The basics for addition and subtraction of single digit numbers are part of daily life experiences.

Learning Outcomes:

Children will be able to:

- ✎ work with numbers from 1 to 20;
 - ✎ classify objects into groups based on some physical attributes like shape, size and other observable properties including rolling and sliding;
 - ✎ recite number names and count objects up to 20, concretely, pictorially and symbolically;
 - ✎ count objects using numbers 1 to 9;
- ✎ compare numbers up to 20. recognize numbers up to 99 and write numerals;
- ✎ develop the concept of zero.

Number		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Numbers and numerals from 1 to 20. ➤ Introduction to Zero through a subtraction pattern. ➤ Counting objects from 1 to 99 by making groups leading to tens and ones. ➤ Representing a number in groups of tens and ones. ➤ Numeral and numbers names up to 99. ➤ Comparison of numbers up to 99. ➤ Forming two digit numbers using the given digits (with or without repetition). ➤ Sequences of numbers up to 99 in an increasing or decreasing order. 	<ul style="list-style-type: none"> ➤ Providing experiences of counting objects/things from 1 to 20 in different contexts. ➤ Involving children in creating subtraction pattern for developing an understanding of zero taken up interactively in each step and asking questions like "How many (say toffees) are left now?" ➤ Enacting stories like "Seven Tailed Mouse" in which seven tails are being reduced to zero in the class. ➤ Using concrete materials like -ice cream sticks, tooth picks, play money etc. to make bundles of tens and loose "ones" to represent numbers more than ten. ➤ Involving children in the use of objects like sticks and counting them by making bundles of tens and ones to recognise tens and ones in numbers. 	<ul style="list-style-type: none"> ➤ Songs, poems, number lines, number charts and collection of different objects. <i>(This will contribute to the development of numbers and numerals.)</i> ➤ Different materials like straws, sticks, Unifix cubes, Cuisenaire rods, currency notes and coins of ₹10. <i>(These will help children in developing the idea of place value. For example, in 27 the digits 2 and 7 have specific meanings that can be represented by the above material).</i> ➤ Number cards up to 99. <i>(These be used to create</i>

Number

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Before, after and in between numbers.</p>	<p>➤ Conducting drills in different contexts e.g. shopping, buying tickets etc. to make children comfortable in the use of numbers up to 99.</p> <p>➤ Encouraging children to observe the patterns in number names-twenty, twenty-one, twenty-two and so on and use it for reciting number names up to 99.</p> <p>➤ Using number cards from 0 to 9 to let the children explore and make different two digit numbers.</p> <p>➤ Encouraging children by observing patterns, to compare 2-digit nos.</p>	<p><i>an increasing and decreasing order sequence).</i></p> <p>Sets of number cards from 0 to 9 (<i>This may be used to make two digit numbers</i>).</p>

Theme 2: Number Operations

'Number Operations' as a theme enables children to learn the basic operations of addition and subtraction of numbers up to 99. Materials, pictures and stories of daily life contextual problems establish meaning in problem-solving situations. With these experiences children will develop their strategies to add/subtract double digit numbers using the place value (idea of tens and ones).

Learning Outcomes:

Children will be able to:

- apply addition and subtraction of numbers from 1 to 20 in their daily lives;
- construct addition facts up to 9 by using concrete objects;
- subtract numbers using 1 to 9;
- solve day to day problems related to addition and subtraction of numbers up to 9.

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Addition and subtraction up to 20 (in steps-first up to 9 / less than 10 and then up to 20). ➤ Addition and subtraction of numbers within 99 without regrouping. ➤ Solving problems presented through pictures and verbal descriptions by addition and subtraction of numbers. 	<ul style="list-style-type: none"> ➤ Taking up addition facts up to 9 first and up to 20 later. ➤ Involving children in exploration of addition facts through concrete materials like connecting cubes, number strips etc. ➤ Encouraging children to come up with a number story which involves a given addition fact and tell the story verbally and vice versa. ➤ Using picture cards involving numbers i.e. objects in numbers to let children solve problems. Smaller numbers may be used initially so that children are able to solve the problem mentally and communicate verbally. ➤ A number line created in the play area will provide both a numerical and kinaesthetic experience to develop readiness for addition and subtraction. 	<ul style="list-style-type: none"> ➤ Concrete materials that are available in a child's vicinity. <i>(These should be an integral part of her/his work to develop intuitive understanding of addition and subtraction).</i> ➤ Geoboard and rubber bands. <i>(Can be used for demonstration of addition and subtraction).</i> ➤ Dominoes. <i>(These are a good source of learning addition facts. For example, through 1-5, 2-4, 3-3 dominoes a child will form addition facts that all add up to 6 and more over will learn to see partitions of the number 6)</i> ➤ Currency notes and coins of Rs.10 and ₹1 <i>(These may be used to learn addition and subtraction in a shopping context with and without regrouping).</i> ➤ Spike Abacus. <i>(Is an important and joyful manipulative tool/aid to explore various ways of addition and subtraction of numbers).</i>

Theme 3: Geometry

'Geometry' focusses on the physical features of shapes in 2D and 3D. It enables children to classify, sort and describe various shapes on the basis of their observable features. The shapes that are in children's daily life form a strong basis for acquiring visualization skills.

Learning Outcomes:

Children will be able to:

- ✔ describe the physical features of various solids/shapes in her own language;
- ✔ describe names, and interpret relative positions in space and apply ideas about relative position;
- ✔ understand connection of geometrical concepts with daily life.

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Sorting, classification and description of shapes on the basis of their observable properties like corners, vertices, edges, surfaces etc. ➤ Basic 3D shapes like cuboid, cylinder, cone, sphere by their observable properties and names. ➤ 2-D shapes as outlines of the surfaces of 3-D shapes on paper/or flat surface. ➤ 2D shapes - rectangle, square, triangle, circle, line etc. 	<ul style="list-style-type: none"> ➤ Providing concrete materials in the form of different shapes like triangle, rectangle, circle etc. so that children can classify the shapes based on a single property like colour, shape, size etc. The criteria for classification may be discussed in the class. ➤ Creating collection of empty boxes with different 3D-shapes. The children may be encouraged to use their sense of touch to describe and name the 3D shapes. ➤ Using above mentioned collection to encourage children in the exploration of tracing all the surfaces of 3D-shapes on paper. ➤ Asking children to observe their surroundings and identify objects/things which have shapes like 2D shapes namely triangle, rectangle, square and circles. 	<ul style="list-style-type: none"> ➤ Various shapes that are available to children that are in close proximity i.e. at home, in school, in playground etc. <i>(These can be used to provide them the opportunity to verbalize and generalize their observable properties).</i> ➤ A collection of empty boxes that are used for packaging like sweet boxes, cold drink cans, clown's cap. ➤ Clay or play dough. <i>(To make different solid shapes and discuss about their creation).</i> ➤ A straight edge can be used by children to cut the three dimensional shape made by clay and to investigate the cross section to relate 3-D with 2-D. ➤ Geoboard. <i>(This can be used for demonstrating various shapes).</i>

Integration: Arts Education

Skills: relating geometrical shapes with real life situations

Theme 4: Measurement

Concepts of 'Measurement' begin with a general comparison: bigger cake, taller building, heavier bag, slower bicycle, longer room or cooler day. However, these characteristics of length, volume, speed and heat cannot be counted directly. They are continuous properties that can take on any value which must be measured. Children have a basic idea and understanding of this comparison when they enroll in class I. Initially classes must be devoted to further strengthen these ideas and a need to measure them.

Learning Outcomes:

Children will be able to:

- ✦ estimate and measure short lengths using non uniform units like a finger, hand span, length of a forearm, footsteps;
- ✦ compare mass/weight using a scale;
- ✦ order various containers in terms of their capacity and volume;
- ✦ arrange events happening in short/longer span of time.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>(a) Length</p> <ul style="list-style-type: none"> ➤ Introduction to Vocabulary like near, far, thin, thick, longer/taller, shorter, high, low etc. ➤ compare lengths of objects and arrange in order ➤ Measure short lengths using non-standard units (e.g. hand span) ➤ Estimation of short distances and lengths and their verification using non-uniform units <p>(b) Weight</p> <ul style="list-style-type: none"> ➤ Compare heavy and light objects. <p>(c) Volume (Capacity)</p> <ul style="list-style-type: none"> ➤ Order different containers in terms of their capacity. <p>(d) Time</p> <ul style="list-style-type: none"> ➤ Distinguish between events occurring in time by using vocabulary like - earlier - 	<ul style="list-style-type: none"> ➤ Using concrete materials to bring home the vocabulary like thick - thin, longer-taller etc. Questions like "Why do you think it is thick / thin? This may be discussed in the class using classroom objects. ➤ Creating activities/games around the vocabulary near - far, high-low to give children an idea that the vocabulary works with a frame of reference. ➤ Providing concrete materials of different lengths to children to arrange them in ascending/ descending order of length. ➤ Conducting activities with children involving various materials: <ul style="list-style-type: none"> ☛ to measure their length using nonstandard measure. ☛ to compare their weights. ☛ to compare their capacities. ➤ Creating a collection of different containers in the class by children. Children may be encouraged to 	<ul style="list-style-type: none"> ➤ Material available in a child's vicinity. <i>(These can be used to bring home the idea of measurement and to appreciate the need for measuring quantities like length, mass, area, volume, capacity, money, temperature and time).</i> ➤ A toy clock, buckets and mugs, cold drink cans/bottles, chalk and pencil boxes and a toy weighing balance. ➤ Graph paper/grid sheets. <i>(Use of these will help children to get idea of area as number of squares inside the region).</i> ➤ Different containers that are available in a child's vicinity like glasses, spoon, jugs, mugs, buckets etc.

Measurement

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>later etc.</p> <ul style="list-style-type: none">▶ Differentiate between events of short and long duration.▶ Verbal description of the sequence of events happening in a day.	<p>work in groups to find out the capacity of containers. e.g. How many cups / spoons are full / empty?</p> <ul style="list-style-type: none">▶ Organizing discussions with children to find out the day's various events by using words like – what happened earlier? Which happened later? What was the sequence? Which of the events of the day were of a short duration? "Which were of a longer duration? etc.	

Integration: Languages, EVS

Theme 5: Data Handling

In Class I, data handling will focus on being exploratory in nature and centered around children's first hand observations. Many childhood activities provide data that children can organize such as- information about birthdays, shirt/dress sizes, colour and types, favourite sweets and television shows, etc.

Learning Outcomes:

Children will be able to:

- collect, record (using pictures/ numerals) and interpret simple information by looking at visuals.

Data Handling		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Collection, representation and interpretation of simple information presented in a visual or by actual measurement (like measuring arm length).	<ul style="list-style-type: none">Conducting activities around data handling may be created by showing the children visuals in which different information can be visually seen and noted by children like animals, vegetables, fruits etc.Conducting group activities woven around children exploring their own bodies by measuring different body parts using paper strips or threads and collecting information about their length.	<ul style="list-style-type: none">Newspaper clippings having tables and graphs.Wrappers of different things that children eat like biscuits, wafers, chocolates etc. (These <i>have lot of information that can be used to provide them the opportunity to organize and interpret</i>).

Integration: Arts Education

Theme 6: Patterns

The theme 'Patterns' aims at familiarizing children with different types of patterns in their surroundings. They will also learn to extend patterns of numbers and shapes through observation. This will help them in acquiring the skill of generalization in higher classes.

Learning Outcomes:

Children will be able to:

observe, extend and create patterns of shapes and numbers. For example, arrangement of shapes/ objects/numbers, etc. like

1, 3, 5,.....,

2, 4, 6,.....



Patterns		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Simple patterns in shapes and numbers in the surroundings: their observation and extension. ▶ Patterns from daily life experiences. 	<ul style="list-style-type: none"> ▶ Encouraging children to firstly observe and then verbally describe the patterns seen around them. ▶ Extending and completing a sequence in patterns, should be interspersed with questions like "Why do think it should be completed/extended like this." 	<ul style="list-style-type: none"> ▶ Designs on Clothes, <i>Rangoli</i>, Tiles on pavements walls and floors. (These items that are arranged in order form the basis for looking into patterns). ▶ Patterns in numbers and shapes.

Integration: Arts Education, EVS

Theme 1: Numbers

Children continue to strengthen their understanding about two digit numbers and extend this up to three digits. The basic properties like comparison of numbers, ordering and forming greatest and smallest three digit numbers are also to be explored in this class. At this stage child should be capable of looking into the pattern that numbers and number names have. This helps children in learning the bigger numbers.

Learning Outcomes:

Children will be able to:

- ✎ work with two digit numbers;
 - ☛ read and write numerals for numbers up to 999;
 - ☛ use place value in writing and comparing two digit numbers;
 - ☛ form the greatest and smallest two digit numbers (with and without repetition of given digits).

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Numbers up to 99 and their number names. ➤ Read and write 3 digit numbers up to 999. ➤ Place and face values of digits in a three-digit number. ➤ Comparison of numbers and their arrangement in ascending and descending orders. 	<ul style="list-style-type: none"> ➤ Providing opportunities to write number names based on pattern e.g. twenty-one, twenty-two..... forty-one, forty-two..... & so on. ➤ Conducting activities using place value cards (also known as arrow cards) to construct numbers with three digits along with finding out the place value and face value of digits. ➤ Using number cards from 0-9 in groups by each child to explore & make 3 digit numbers and write their number name. 	<ul style="list-style-type: none"> ➤ Place value cards, can be developed. (For e.g. 27 cards having numbers 1 to 9, 10 to 90, and 100 to 900. These are of different size as shown below: <div style="text-align: center;"> </div> <ul style="list-style-type: none"> ➤ Spike abacus. ➤ Play money notes and coins of ₹ 1, ₹10 and ₹100.

Theme 2: Number Operations

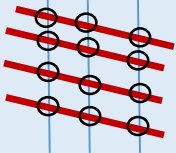
Activities that lay the foundation for work with addition and subtraction begin in children's early schooling. Once begun, work continues throughout the elementary classes. Early work with addition and subtraction with whole numbers must provide opportunities for children at this stage to see the operations used in real life situations and with a variety of manipulative material in order to learn the meanings of the operations and their algorithms. The aim of this theme in this class is that children should observe various properties of addition and subtraction of numbers like commutativity, associativity etc. in an informal way. Multiplication as another short way of repeated addition is seen in more systematic way in this class. The operation of multiplication further strengthens with experiences of skip-counting. At this stage, children must encounter familiar situations in real-life problems and pictorial representations with which they make connection between the new situation and skip counting. The division is introduced as equal sharing/distribution. Thus, before using the symbols for division as an operation on numbers it is important that children have lot of experiences of sharing objects equally. The textbooks and the classroom activities must include this aspect before formally introducing division.

Learning Outcomes:

Children will be able to:

- ✓ use place value (with regrouping) in standard algorithm for addition & subtraction;
- ✓ represent an amount up to ₹100 using 3-4 notes and coins (of same/ different denominations);
- ✓ add on zero to a number and subtract zero from a number;
- ✓ observe and generalize commutative property of addition through pattern;
- ✓ solve daily life problems / activities related to addition and subtraction presented through pictures and stories;
- ✓ construct problems that can be solved by addition & subtraction of two digit numbers;
- ✓ estimate sum and difference of two given numbers;
- ✓ construct multiplication tables of 2, 3, 4, 5 through repeated addition and different other ways like skip counting, use of patterns & broom sticks;
- ✓ use various situations on equal grouping/equal sharing that lead to repeated subtraction;
- ✓ add and subtract two digit numbers mentally.

Number Operations

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Addition and subtraction of two digit numbers with and without regrouping. ➤ Use of place value (with regrouping) in standard algorithm for addition and subtraction. ➤ Addition of zero to a number and subtracting zero from a number. ➤ Commutative property of addition through pattern. ➤ Solving daily life problems related to addition and subtraction presented through pictures and stories. ➤ Construction of problems that can be solved by addition and subtraction of two digit numbers. ➤ Estimation of the sum and difference between two given numbers. ➤ Construction of multiplication tables of 2, 3, 4, 5 through repeated addition and different other ways like skip counting, used of patterns and broom sticks. ➤ Various situations on equal grouping/equal sharing that lead to repeated subtraction ➤ Mental addition and subtraction of two digit numbers. 	<ul style="list-style-type: none"> ➤ Providing a variety of real life contexts either visually and verbally so that children also learn problem solving. ➤ Encouraging children to construct and solve problems related to operations on numbers. ➤ Conducting activities involving estimation of sum and differences of two numbers. Questions like "How did you estimate?" should trigger a detailed discussion about various ways for estimation. ➤ Involving children in development/construction of multiplication tables through various ways. (<i>Through practice multiplication facts will slowly get committed to memory</i>). ➤ Using concrete materials in classrooms to let children understand the basic idea of equal sharing/equal grouping. ➤ Encouraging children to add subtract single digit numbers through various games / activities without pen / pencil. ➤ Using charts showing addition and subtraction of two-digit number. ➤ Conducting games in which children have to do mental mathematics of adding and subtracting two digit numbers. 	<ul style="list-style-type: none"> ➤ Napier strips for multiplication of numbers. ➤ Straws or sticks. (<i>Putting one over the other to construct multiplication tables</i>) <p style="text-align: center;">e.g. 3×4 as</p> <div style="text-align: center;">  </div> <ul style="list-style-type: none"> ➤ Pebbles and other objects. (<i>These can be used for equal sharing and equal grouping</i>). ➤ Charts showing addition and subtraction of two-digit number.

Life Skills: solving daily life problems

Theme 3: Geometry

The aim of this theme is enabling children to describe 3-D objects that they have in their daily life experiences. This description includes the physical characteristics of the object like its shape, size, location and orientation which make it different and/or similar to other objects. They will also be introduced to the informal use of the geometrical vocabulary like naming shapes as rectangles, squares, triangles and circles, classifying edges as straight and curved and surfaces as curved and plane etc..

Learning Outcomes:

Children will be able to:

- describe basic 3D and 2D shapes with their observable characteristics;
- identify basic 3D-shapes such as cuboid, cylinder, cone and sphere by their names;
- trace 2D outlines of 3D objects;
- identify 2D shapes (rectangle, square, triangle, circle) by their names;
- distinguish between straight and curved lines;
- draw/ represent straight lines in various orientations (vertical, horizontal, slant).

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Creation of 2D-shapes through paper folding & paper cutting. ▶ Attribute of 2D shapes and their sides and corners. ▶ Straight lines and representing them by paper folding, straightedge objects, stretched strings etc. ▶ Draw horizontal, vertical and straight lines. ▶ Introduction to curved lines. 	<ul style="list-style-type: none"> ▶ Conducting activities on traditional paper folding for a boat, airplane etc. using various shapes like rectangle, square and triangles. ▶ Providing concrete 2D-shapes in multiple sizes colours, objects having 2D-shapes so that through observations & sense of touch, children generalize the attributes like sides, corners etc. ▶ Organizing classroom so that children create straight-edges through paper folding and trace them on a paper. ▶ Encouraging children to draw straight lines in different orientation so that they get the idea of a straight line. ▶ Discussing and giving examples of what is a straight line and what is not a straight line. ▶ Providing intuitive experiences through exploration about the shortest distance between two points. ▶ Providing opportunities to draw free hand straight line, free hand and with the help of ruler. 	<ul style="list-style-type: none"> ▶ Pastel papers sheets, cutters and gum/adhesive. ▶ Card board cut-outs of triangular, rectangular, square regions. ▶ A-4 size papers, sheets, tracing papers/ butter paper, carbon sheets. ▶ Pair of compasses, scale/straight edge and protractor ▶ Geoboard and rubber bands. ▶ Maths kit.

Integration: Arts Education

Theme 4: Measurement

The need for uniform units for measurement of some quantities through daily life experiences forms the basis for learning in class II. Length, capacity (volume) and weight are measured by applying a unit directly to the object being measured. Hence, children should be enabled to construct their own units for direct measurement of length, capacity and weight.

Learning Outcomes:

Children will be able to:

- ✎ estimate and measure length/distances and capacities of containers using uniform nonstandard units like a rod/pencil, cup/spoon/bucket etc.;
- ✎ classify objects as heavier/lighter than, using simple balance;
- ✎ identify the days of the week and months of the year;
- ✎ sequence the events occurring over longer periods in terms of hours/days

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Measurement of lengths and distances using uniform (non-standard) units. ➤ Compare two or more objects by their weights as heavier than/lighter than. ➤ Use of the simple balance to compare weights. ➤ Order containers based on the perception of their capacities and verifying them. 	<ul style="list-style-type: none"> ➤ Designing and conducting group/individual activities for measuring different objects, distance using uniform things like paperclips, toothpicks, a stick etc. ➤ Involving children in constructing simple objects using available materials and encouraging them to compare weights and use of vocabulary like heavy/light. ➤ Providing a number of opportunities to children to estimate lengths in their vicinity and then verify through paperclips, tooth picks, chinks et. ➤ Encouraging children (individually and in groups) to estimate capacities and to verify by actual measurement? Questions like "Find how many mugs / spoons can fill this container? And verify it by actual measurement. 	<ul style="list-style-type: none"> ➤ Paper clips, toothpicks, sticks of equal size. ➤ A measuring tape and a 15 cm scale for observation and not for measuring length. ➤ Various containers and empty cans/bottles having their quantity written on them.

Theme 5: Data Handling

Children will be enabled to explore the importance and need for collecting different data and learn to take decisions on: the type of information needed, how it can be gathered organized and ways to display and communicate the information to others. This exploration starts in an informal way in class and children learn to use tables and pictures to organize data in basic problem-solving strategies.

Learning Outcomes:

Children will be able to:

- interpret simple charts and graph;
- present information with pictograph.

Data Handling		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Simple graphs related to day to day life. For example, bus time table chart, height chart etc.	<ul style="list-style-type: none">Organizing activities with children individually and in small groups around observing various body parts and collecting information through measurement. This will help children in presenting data and drawing inferences.Conducting group activities for data collection and tabulation. Answers to questions like “which vegetables do you not like? etc.” may be explored in groups.Measuring articles like paper clips, containers to collect data.Pasting stickers of various objects to represent data pictorially by children.	<ul style="list-style-type: none">Paper clips, containers.Stickers of various objects.

Integration: Arts Education

Life Skills: Interpretation and analysis

Theme 6: Patterns

This theme aims to encourage children to develop habits of looking for using patterns as they search for a meaning in Mathematics. It is infused with patterns in numbers, number operations, measurement, geometrical ideas and data. To realize this, the teaching - learning process should allow children to observe and generalize simple patterns that exist in their daily life.

Learning Outcomes:

Children will be able to:

- observe, extend and create patterns using different objects, shapes and numbers.

Patterns		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Observation and identification of unit of repeat in a given patternExtension of the pattern to next few terms on the basis of the identified unit of repeatCreate patterns from daily life experiences.	<ul style="list-style-type: none">Involving children in observing patterns created by other children to observe a unit of the repeat.Asking children to make stencils or stamps, tools by the section of different vegetables, thumb, figures, foot prints etc. and making designs. This will help them in identification of a unit of repeat in the pattern.	<ul style="list-style-type: none">Seasonal vegetables like ladyfinger, potato and knife (<i>to get their section</i>).Ink or Water colours and Paper.Sandpit to make patterns using hand, foot prints etc.Geoboard and rubber bands.

Integration: Arts Education, EVS

Theme 1: Numbers

This theme aims at developing the abilities of children to learn three and four digit numbers. They will be through the use of materials be provided opportunities for observing patterns in two digit numbers and extending it to three digit numbers for everything that includes comparing, forming smallest and greatest numbers using given digits.

Learning Outcomes:

Children will be able to:

- ✎ work with four digit numbers:
 - ☛ read and write numbers up to 9999 using place value;
 - ☛ identify the greater and smaller number, of two given numbers, using place value;
 - ☛ form different numbers using given digits with and without repetition.

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ 4 digit numbers (up to 9999). ➤ Place value and expanded form of number. ➤ Count numbers in different ways-starting from any number. ➤ Comparison of numbers and arrange them in ascending and descending order. ➤ Greatest and smallest numbers that can be formed by using given digits (with or without repeating digits). 	<ul style="list-style-type: none"> ➤ Using place value cards (popularly known as arrow cards) to make 4 digit numbers, show their expanded form and place value and face value of digits. ➤ Discussing examples where numbers occur in thousand in real life contexts. ➤ Involving children in making rules based on patterns may be evolved for comparing numbers. ➤ Providing opportunities for sequencing of these numbers in ascending or descending orders. ➤ Providing two sets of number cards to groups of children to explore 4 digit numbers and finding out the greatest and the smallest numbers. ➤ Using games and activities to create 4-digit numbers with specific characteristic like numbers with 5 at hundredths place, numbers not having 2, 4, 6, 8 and 0 at ones and tens place etc. 	<ul style="list-style-type: none"> ➤ 36 Number cards 1 to 9, 10 to 90, 100 to 900, and 1000 to 9000 ➤ Videos and PPTs related to 4 digit numbers.

Theme 2: Number Operations

This theme aims at reinforcement of children's understanding about adding and subtracting two digit numbers and further establishing the algorithms to add three digit numbers may be undertaken. The development and strengthening of algorithm for multiplication is also necessary to clear concepts. A variety of ways for the construction and use of multiplication facts of single digit numbers will be developed in children. Division is introduced as inverse process of multiplication and children learn to divide numbers. Application of learning about four digit numbers and operations on them should form the basis in the teaching - learning process.

Learning Outcomes:

Children will be able to:

- ✔ solve simple daily life problems using addition and subtraction of three digit numbers with and without regrouping, sums not exceeding 999;
- ✔ construct and use the multiplication facts (tables) of 2, 3, 4, 5 and 10 in daily life situations;
- ✔ analyse and apply the appropriate number operation in their situation/ context;
- ✔ explain the meaning of division facts by equal grouping/sharing and find it by repeated subtraction;
- ✔ add and subtract small amounts of money with or without regrouping;
- ✔ make rate charts and simple bills.

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Addition and Subtraction of numbers (up to 3 digits). ▶ Place value to add and subtract numbers by using standard algorithm. ▶ Problem solving involving addition and subtraction operations in different real life contexts presented through visuals and stories. ▶ Multiplication tables of 2, 3, 4, 5, 7, 9, 10 using different strategies like repeated addition, skip counting, patterns etc. ▶ Multiplication of a two-digit number with a one-digit number using standard algorithm and other methods (lattice method). 	<ul style="list-style-type: none"> ▶ Encouraging estimation of addition and subtraction followed by verification. ▶ Creating real life context based problems involving addition and subtraction (by children) and exchanging among them to encourage visual illustration of the problem. ▶ Discussing what "3 times 4", "4 ×6" and so on means may take place result in introduction of sign of multiplication. Asking children to practice and then explain the same to one another in groups while the teacher monitors and provides feedback. ▶ Encouraging children to construct/develop multiplication tables using different strategies. Remembering tables through memory may be discouraged. ▶ Creating contexts from real life in which multiplication facts have to be 	<ul style="list-style-type: none"> ▶ Beads, attachable cubes (unifix cubes), spike abacus. ▶ Napier Strips. ▶ Videos and PPTs.

Number Operations

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Division of numbers in the context of equal grouping and equal sharing. ▶ Division facts using grouping and multiplication tables. ▶ Relation in multiplication with division of numbers. ▶ Mental computation of sum and difference of two digit numbers using different strategies but without using paper and pencil and crammed facts. ▶ Mental multiplication of two numbers without use of paper and pencil and rote memorized facts. ▶ Estimation of sum, difference and product of two numbers and verification by actually computing them. 	<p>used e.g. what is price of 4 note books if price of one note book is known.</p> <ul style="list-style-type: none"> ▶ Explaining and demonstrating the multiplication of two numbers with one digit in expanded notation so as to create a mathematical understanding of standard algorithm. ▶ Providing and demonstrating concrete examples of equal sharing/ grouping which can be co-related with division and the sign of division may be introduced. ▶ Explaining and discussing with children the interrelationship of division with multiplication and multiplication facts / division facts may be taken up together. ▶ Providing opportunities to children in groups/individually to create real life contexts so as to add/subtract without paper pencil e.g. situation of shopping and finding the total cost amount left etc. For example- I have a hundred rupee note and bought two pencils and two note books, what amount will be left with me after paying the price of the two items? ▶ Creating contexts where double or thrice of a number is needed and encouraging children not to use paper pencil but do the calculation mentally. For example, six children planted one sapling each for three days, how many saplings have been planted by the children? 	

Theme 3: Geometry

Children learn to complete the Level 0 (Visualization) of Van Heile hierarchical model of geometric thinking. They recognize and identify two-dimensional shapes and three dimensional figures by their appearance as a whole. Level 0 represents the geometric thinking of many children in the early primary grades. The naming of 2-D and 3-D shapes is also included and their recognition in children's vicinity.

Learning Outcomes:

Children will be able to:

- ✔ recognise 2D shapes like straight and curved lines;
- ✔ identify and make 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc.;
- ✔ describe 2D shapes by counting their sides, corners and diagonals;
- ✔ fill a given region leaving no gaps using a tile of a given shape and forms various shapes using tangram pieces.

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Make straight lines, curved lines and different shapes on a dot grid. ➤ Various shapes using tangram shapes. ➤ Compare two or more shapes to match their properties like sides and corners etc. ➤ Tessellation: Tiling a given region using the tile of a given/particular shape. ➤ Identification of shapes that tile and that do not tile. ➤ Simple map reading (may not be to a scale). ➤ Line-drawings of 3D objects on paper or on flat surface. 	<ul style="list-style-type: none"> ➤ Conducting activities to use dot grids, straight lines, curved lines and shapes to create different sceneries. ➤ Promoting the use of tangram shapes to make shapes/objects. This will help children in creating an understanding about shape. ➤ Facilitating the creation of different shapes by children using broom-sticks, drinking straws etc. and their shapes maybe discussed with respect to their physical attributes like sides/corners. ➤ Conducting activities to use similar shapes (created / processed) for covering a particular flat surface (as a group work) without any gaps and over lapping in the shapes. ➤ Discussing in groups the shapes that can tile or that cannot tile. Questions like "Why it is so?" should also be discussed ➤ Assigning a task to each child to make a map (not to scale) related to their daily life experiences. For example, map of how to reach "home to school" and then exchange it with other children. Each child gets to read 2-3 maps. This can be followed by holding a discussion on "What makes a map easy to read?" 	<ul style="list-style-type: none"> ➤ Tangrams with 5 or 7 pieces. ➤ Broom sticks, drinking straws, ice cream sticks etc. ➤ Cardboard pieces. <i>(to make number of tiles of same shape and size.)</i> ➤ Clippings of different maps being published/printed in various magazines and newspapers. ➤ Geoboard with rubber band. ➤ Maths kit

Integration: Arts Education

Life Skills: solving daily life problems

Theme 4: Measurement

Children learn to use a standard unit for measuring length. The comparison of weight is also to be done not only on the basis of the size but using a simple balance. The measures of capacity in terms of non uniform units like capacity of a bucket in terms of jugs/mugs, volume of cold drink in a bottle in terms of number glasses/cups etc. The measure of time using a calendar or a watch/clock is in child's daily life activities will also be emphasised.

Learning Outcomes:

Children will be able to:

- ✎ estimate and measure length and distance using standard units like centimetres or metres;
- ✎ weigh objects using simple balance;
- ✎ compare the capacity of different containers in terms of non uniform units;
- ✎ identify a particular day and date on a calendar;
- ✎ read the time correctly to the hour using a clock/watch.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>(a) Length</p> <ul style="list-style-type: none"> ➤ Need for standard units for measuring length. ➤ Measurement of lengths & distances using appropriate units like centimeter and meter. ➤ Use of measuring tools like scale or measuring tape. ➤ Estimation of the length of various objects and distances in near vicinity and verification by actual measurement. ➤ The relationship between metre and centimeter <p>(b) Mass/ Weight</p> <ul style="list-style-type: none"> ➤ Non-standard units to weigh different objects in the environment. <p>(c) Capacity/Volume</p> <ul style="list-style-type: none"> ➤ Measurement and comparison of the capacity of different containers using 	<ul style="list-style-type: none"> ➤ Encouraging children (in groups) to make a meter long paper strip using 10cm/20cm long paper strips. Then use this paper strip (metre) to estimate and measure various objects in the environment small objects in cm and longer objects / distances in metres. ➤ Providing opportunities to discover relationships between metre and centimetre. ➤ Using simple balances (made by children) for weighing objects in the environment using a stone or non-standard weight / objects thus establish the need for a standard uniform measure. ➤ Using different small containers to measure the capacities of different 	<ul style="list-style-type: none"> ➤ Papers, glue sticks. ➤ Markers of different colours. ➤ Thick strings, plastic plates, wooden sticks for making balance. ➤ Different sized spoons, containers like bowls, glasses etc. water containers. ➤ Toy clock constructed by children to read time. ➤ Calendar of the current year. ➤ Geoboard with rubber band. ➤ Maths kit. ➤ Videos/PPTs.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
non-standard units. ▶ Conservation of volume. (d) Time ▶ A calendar to find a particular day and date. ▶ Read and write time am/pm and 12 hr and 24 hr clock time. ▶ Conversion of 12 hr clock time into 24 hr clock time and vice versa. ▶ Conversion of days to hours and hours to minutes.	containers. For example, capacity of a big-glass may be measured by a small spoon/big spoon/small bowl. ▶ Organizing discussion in class to draw an inference about conservation of volume. ▶ Involving children to read a clock and a calendar and to tell time and day corresponding to a date. ▶ Conducting activities of reading a railway/bus time table in which time is given in 24-hour clock.	

Integration: Science (Forms of Matter)
 Social Studies (Understanding Changes)

Life Skills: solving daily life problems

Theme 5: Data Handling

This theme will focus on children developing skills to collect information for a purpose, present it so that it is easily understandable and finally draw out relevant conclusions from it is part of daily life. The level and quantum of information collected, its ways of representation and level of inferences drawn from it change progressively.

Learning Outcomes:

Children will be able to:

- acquire understanding about data handling;
- record data using tally marks, represent it pictorially and draw conclusions.

Data Handling		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Data collection and its representation in form of pictograph and tables.Classification and comparison of data.Recording data using tally marks, representing it pictorially and drawing conclusions.	<ul style="list-style-type: none">Encouraging children to collect data and represent it by paper strips, string lengths, pictures etc. and making a pictograph or a bar chart.Questions about the graphical representation may be discussed in the class in groups or with the whole class.	<ul style="list-style-type: none">Coloured papers, markers, stickers of different objects.Videos and PPTs.

Integration: Arts Education

Life Skills: Interpretation and analysis, presentation skills

Theme 6: Patterns

As number concepts and skills increase in complexity, children find patterns and relationship between numbers. Thus patterns go side by side with learning of all aspects of Mathematics like, numbers, number operations and geometrical ideas. Patterns in multiplication facts help children in multiplying two-digit numbers and apply the algorithm for addition and subtraction to three or more digit numbers. Children will also be able to see the beauty in patterns around them and create their own patterns.

Learning Outcomes:

Children will be able to:

- observe and identify patterns with a “unit of repeat”;
- extend patterns using “unit of repeat”;
- create patterns having a “unit of repeat”.

Patterns		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Patterns with unit of repeat. ▶ Extension of pattern using some rule. 	<ul style="list-style-type: none"> ▶ Conducting activities to find answers to questions like “what is being repeated in a given pattern like <div style="text-align: center; margin: 5px 0;"> </div> Or A, B, A, B, 2, 4, 2, 2, ▶ Providing opportunities to children to create their own patterns using vegetable cut outs like ladyfinger, potatoes etc. with ink of water colours on a flat surface/paper. 	<ul style="list-style-type: none"> ▶ Shapes, materials, colours, stamp pads. ▶ Sharp edge to get section of vegetables and to carve designs on surface of potatoes etc. to use it as a stamp for creating patterns. ▶ Geoboard with rubber band.

Integration: Arts Education

Theme 1: Numbers

The basis of understanding multi digit numbers lies in the understanding of the place value system. Thus, it is important to start with the concept of place value through manipulatives like place value cards, spike abacus, unifix cubes and expanded and short form of numbers in class. International system of numeration is different than the one used in India. Children will understand that the difference lies in the process of grouping the digits called periods. They should be able to relate to various types of numbers learnt earlier i.e. counting numbers, common fractions and decimal fractions. A clear understanding about the relationship among these numbers will help them in further using these for problem solving strategies. Providing opportunities of using these in different contexts (familiar and unfamiliar) are important to develop strategies to deal with them.

Learning Outcomes:

Children will be able to:

- ✓ acquire understanding of 6 digit numbers and their use in daily life;
 - ☛ read and write numbers up to 6 digits (lac) using Indian system of writing large numbers;
 - ☛ use place value to write a number in expanded form and vice versa;
 - ☛ compare numbers using place value and arranges them in ascending and descending order
 - ☛ use the given 6 digits to form the greatest and smallest number;
 - ☛ represent numbers (up to 39) by Roman Numerals:
- ✓ work with fractions:
 - ☛ identify half, one-fourth, three-fourths in a given picture (by paper folding) and also in a collection of objects.
 - ☛ represent fractions as half, one-fourth and three-fourths by using symbols $\frac{1}{2}$, $\frac{1}{3}$, $\frac{3}{4}$ respectively.
 - ☛ show the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ and other fractions.

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ 6 digits numbers (up to lac) using the Indian system of numeration. ➤ Place value and face values. ➤ Ascending and descending order of numbers. ➤ Greatest and smallest numbers from given digits. ➤ Roman Numerals using symbols I, V and X. ➤ Fractions as part of a whole and their representation as 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to collect and discuss real-life context in which numbers up to a lac are used e.g. making large payments, huge crowd. etc. ➤ Building on previous learning by providing opportunities for application of place value learnt in previous classes by expanding it based on patterns. 	<ul style="list-style-type: none"> ➤ 5-6 sets of number cards from 0-9 to make 6 digit numbers. ➤ Cuttings from newspaper/ magazines about large numbers.

Numbers

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>number.</p> <ul style="list-style-type: none">➤ Types of fractions: Like, unlike, unit, equivalent.➤ Visual idea of equivalent fractions like $\frac{1}{2}, \frac{2}{4}, \frac{3}{6}, \dots$➤ Addition of subtraction of like fractions.	<ul style="list-style-type: none">➤ Conducting activities so that children compare numbers using place value based and creating number sequence in ascending and descending order.➤ Creating games/activities using number cards (0-9) to form 6 digit numbers (e.g. A number which has 8 at thousandth place & so on).➤ Forming questions on the greatest and smallest numbers should be discussed with the strategy to do so.➤ Introducing numerals from other Indian languages along with Roman numerals.	

Theme 2: Number Operations

This theme aims at children gaining a broader and deeper understanding of the standard algorithms by having many and varied opportunities to use concrete materials such as place-value charts, unifix cubes and base ten blocks in problem-solving situations. The use of these tools will greatly enhance children's exploration of addition, subtraction, and multiplication involving regrouping, and multi digit division. Teaching the standard algorithms through problem solving using manipulatives will help children develop their conceptual understanding of the standard algorithms. Once children have a thorough understanding of the standard algorithms, it will enable them to work flexibly with algorithms and determine when their use is appropriate.

Learning Outcomes:

Children will be able to:

- ✔ apply operations of numbers in daily life;
- ✔ add and subtract numbers (up to 4 digits) with or without regrouping;
- ✔ solve problems involving addition and subtraction in different real life contexts presented through visuals and stories;
- ✔ construct and write multiplication table up to 10;
- ✔ multiply two and three digit numbers using standard algorithm and lattice algorithm;
- ✔ divide a given number by another number (single digit) by drawing dots and grouping, using multiplication facts and by repeated subtraction;
- ✔ apply four operations-addition, subtraction, multiplication and division in solving real life situations;
- ✔ frame word problems based on a mathematical statement;
- ✔ estimate sum differences and products of two or more given numbers without using paper/pen;
- ✔ multiply 2 and 3 digit numbers;
- ✔ divide a number by another number using different methods such as:
 - ☛ pictorially (by drawing dots)
 - ☛ equal grouping
 - ☛ repeated subtraction
 - ☛ establishing an inter-relationship between division and multiplication
- ✔ create and solve simple real life situations/ problems related to money, length, mass and capacity by using the four operations.

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Addition and subtraction of numbers (up to 4 digits) with or without regrouping. ➤ Construct of multiplication table up to 10. 	<ul style="list-style-type: none"> ➤ Creating real life contexts involving addition/subtraction of 4 digit numbers Text based stories such may be used to practice solving such problems. ➤ Encouraging and facilitating children to develop multiplication tables 	<ul style="list-style-type: none"> ➤ Wooden sticks to demonstrate multiplication table. ➤ Napier sticks for multiplication. ➤ Geoboard and rubber band. <i>(to demonstrate</i>

Number Operations

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Multiplication of two and three digit numbers using standard algorithm and lattice algorithm. ➤ Division in single digit another numbers. ➤ Application of four operations-in solving real life situations. ➤ Word problems based on a mathematical statement. ➤ Estimation of sum, differences and products of two or more given numbers and mental verification. 	<p>rather than learning by rote.</p> <ul style="list-style-type: none"> ➤ Introducing standard algorithm initially with one number in expanded form so that better understanding of standard algorithm is developed e.g. $23 \times 3 = (20+3) \times 3 = 20 \times 3 + 3 \times 3$. ➤ Using repeated subtraction to create intuitive understanding of the division algorithm. ➤ Encouraging children to create real life contextual problems based on mathematical operations (not more than two at a time) and solving them. ➤ Involving children in estimating sum/differences of two numbers to do calculation mentally. ➤ Demonstrating the estimation of sum, difference of two numbers by using the Geoboard and rubber band. 	<p><i>estimation of sum, difference of two numbers.)</i></p>

Life Skills: solving daily life problems

Theme 3: Playing with Numbers

The theme will promote children's exploration with various facts and properties of counting numbers which lead to many important aspects of the use of mathematics in daily life activities. It will encourage children to work with numbers, identify the patterns and make general rules. The concepts like factors, multiples, common factors and multiples lead to classification of numbers into various interesting groups. Children will be encouraged to work in groups to generalize their explorations about number properties and enjoy working with numbers.

Learning Outcomes:

Children will be able to:

- find out factors, prime factors and multiple of numbers;
- understand prime and composite numbers;
- understand divisibility by numbers;
- calculate HCF & LCM of numbers.

Playing with Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Factors. ➤ Multiples. ➤ Prime and composite numbers. ➤ Test for divisibility by 2, 3, 4, 5, 9, 10. ➤ Prime factors- By Factor tree method and Prime Factorization Method. ➤ Highest common factor-listing method and Common Division. ➤ Lowest Common Multiples- Listing Method, Common Division. 	<ul style="list-style-type: none"> ➤ Encouraging children to understand factors of given number. ➤ Conducting activities in the class so that children use multiplication table for understanding multiplication facts. ➤ Encouraging children to first calculate common factors and then to find the highest common factor. ➤ Guiding children to calculate common multiples and then naming the smallest of them as lowest common multiples. 	<ul style="list-style-type: none"> ➤ Wooden sticks. ➤ Match sticks. ➤ Broom sticks.

Theme 4: Geometry

In the primary grades, learning of mathematics encourages children to focus on geometric features of two-dimensional shapes and three-dimensional figures. Instructional activities provide opportunities for children to manipulate, compare, sort, classify, compose, and decompose these geometric forms. These types of activities help children to identify and to informally describe some attributes and geometrical properties of two-dimensional shapes and three-dimensional figures. In the teaching learning process children continue to learn about the properties of two-dimensional shapes and three-dimensional figures through hands-on explorations and investigations.

Learning Outcomes:

Children will be able to:

- ✓ acquire an understanding about shapes around them;
- ✓ identify the centre, radius and diameter of a circle;
- ✓ find shapes that can be used for tiling;
- ✓ draw cube/ cuboids using the given nets;
- ✓ show through paper folding/ paper cutting, ink blots, etc., the concept of symmetry by reflection;
- ✓ draw top view, front view and side view of simple objects;
- ✓ observe, identify and extend geometrical patterns based on symmetry;
- ✓ represent the collected information in tables and bar graphs and draws inferences from these;
- ✓ use tangrams to create different shapes;
- ✓ tile a given region using one and more than one shape;
- ✓ draw a circle-free hand, using a round object or a compass and identify centre, radius, diameter;
- ✓ explore reflective symmetry through ink blots paper cutting and paper folding;
- ✓ explore the area and perimeter of simple shapes;
- ✓ intuitively draw the plan, elevation and side view of different objects based on observation.

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Tangram shapes ➤ Tessellation: Tiling using one and more shapes ➤ Circle: Centre, radius, diameter. ➤ Relation between diameter and radius of a circle ➤ Reflection symmetry ➤ Area and perimeter of simple shapes. 	<ul style="list-style-type: none"> ➤ Using tangrams to create intuitional understanding of physical attributes of different 2D shapes. ➤ Providing concrete shapes (created or procured) to children in groups to cover a surface with no gaps and overlapping using one or two shapes. Discussion on which shapes tile and why or vice versa may be done. ➤ Conducting paper folding activities 	<ul style="list-style-type: none"> ➤ Tangrams of 7 pieces. ➤ Cardboards, tape cutters, glue sticks (for <i>creating tiles of different shapes</i>) ➤ Colour paper, ink markers, scissors. ➤ Circular geoboard and rubber band.

Geometry

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Perspectives of shapes: Plan, elevation and side view. ➤ Introduction of terminology: Plane, point, line, line segment, ray, parallel. ➤ Lines, intersecting and perpendicular lines. 	<p>will go a long way to create a deeper understanding of a circle and various vocabulary related to it.</p> <ul style="list-style-type: none"> ➤ Discussing symmetry in daily life context before introducing reflection symmetry. ➤ Conducting individual activities so that child has experiential learning about symmetry and line of symmetry. ➤ Creating activities for drawing the plan, elevation and side view of 3 D objects. ➤ Conducting quizzes to create an understanding of the different views of objects, houses, places etc. For example, showing top view of a chair or table and asking to guess what this object is. 	

Integration: Arts Education

Theme 5: Measurement

In this theme children will not only learn direct measurement but also develop the understanding of indirect measurements of time and temperature. These cannot be measured directly they require instruments that indirectly translate evidence of their presence into a measurable form. Children will be made aware about this. Previous learning had initiated children the learning of direct measurement i.e., by applying a unit directly to the object being measured. For example, to measure length, area or volume a specific unit is required. Selecting a unit is an arbitrary act and the units used are only conventions accepted by all to bring in uniformity for measurement.

Learning Outcomes:

Children will be able to:

- ❑ convert meters into centimeters & vice versa;
- ❑ solve problems involving lengths & distances in daily life contexts;
- ❑ use estimation and verification to find out the distance between two locations;
- ❑ use a balance to weigh different objects using standard weight like grams, kilograms etc. to different objects;
- ❑ estimate and verifies the weights of different objects using a balance;
- ❑ measure volume of different containers using containers marked with standard units of multi-litre and litre;
- ❑ correlate different units of standard measurement like millilitre and litre with different objects;
- ❑ estimate & verifies capacities of different containers by measurement;
- ❑ explore the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit like the number of books that can completely fill the top of a table;
- ❑ convert metre into centimetre and vice-versa;
- ❑ estimate the length of an object/distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement;
- ❑ solve problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations;
- ❑ read clock time in hour and minutes and expresses the time in a.m. and p.m.;
- ❑ relate 24 hr clock with respect to 12 hr clock;
- ❑ calculate time intervals/ duration of familiar daily life events by using forward or backward counting/addition and subtraction.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Conversion of units: meters into centimeters grams into kilograms, litre into millilitre & vice versa. ➤ Solve problems involving lengths/distances, weight/ mass, volume/capacity in daily life contexts using four operations. ➤ Estimation and verification of length, weight, volume ➤ Conversion of days, hrs and minutes (Bigger to smaller units and vice versa). ➤ Approximate time elapsed through word problems. 	<ul style="list-style-type: none"> ➤ Organising activities for children to use appropriate units with lengths like smaller lengths using cm and metre/Km for large distances. ➤ Creating real life contexts for solving problems involving various units of lengths. ➤ Emphasizing on estimation skills and its development through activities. ➤ Creating contexts in which children use standard weights to find out the weights of different objects. ➤ Asking children to have collection of containers/pouches so as to discuss different things which are measured in milliliters and liters. Some of these containers may be used in conjunction with standard measures. ➤ Using of toy clocks/ prepared by children or other clocks in the classroom or at home to read time in hours, minutes and seconds. 	<ul style="list-style-type: none"> ➤ Measuring flasks with different markings for measurement. ➤ Shapes of cube, cuboid. ➤ Toy clock prepared by children (<i>to read time in hours, minutes, seconds</i>).

Integration: Science (Measurement)

Life Skills: solving daily life problems

Theme 6: Data Handling

This theme will enable children to discover and learn varied mathematical ways of collecting and using information. In this class, the emphasis is given to more efficient ways of representing data by pictures and graphs. The reading and interpretation of graphs is further enhanced to inculcate the data handling skills. Children will also be encouraged to draw their own graphs and pictures for the data collected by them as they will be in a better position to do so.

Learning Outcomes:

Children will be able to:

- represent collected data in pictographs using stickers, pictures etc.;
- read bar graphs and make observations based on more or less.

Data Handling		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Pictorial representation of the raw data.Interpretation of bar graph.	<ul style="list-style-type: none">Taking up data handling activities (slightly more complex) for representation in different graphical forms.Asking children to do simple graphical data representation from newspapers/magazines and interpreted in the class along with discussions on it.Organising group projects involving children in focusing on collecting data, interpreting it and then pictorially representing the same in terms of a bar graph.	<ul style="list-style-type: none">Coloured papers, glue sticks, markers, stickers of different objects.Cuttings of pictographs, bar charts, etc. from newspapers, magazines.Videos and PPTs (of simple data, findings that are presented in graphs).

Integration: Arts Education

Life Skills: Interpretation and analysis

Theme 7: Patterns

The aim of this theme will be to make children aware of and practice how to find patterns, extend them and express in various ways thereby enabling them to initiate the process of thinking towards generalizations which is termed as algebra in upper primary classes. The decimal system (base 10 place value system) has its base on patterns and their further extension from one to tens to hundreds to thousands Similarly, characteristics of shapes and figures are generalized on the basis of patterns.

Learning Outcomes:

Children will be able to:

- observe and identify patterns with more than one characteristic, like growing and reducing patterns;
- create a rule based on observations for extending the pattern in shapes and numbers.

Patterns		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">▶ Growing and reducing patterns.▶ Rule to extend a growing/reducing pattern in shapes and numbers.	<ul style="list-style-type: none">▶ Planning activities around patterns in which children are able to formulate a rule and verify it for the extension of pattern.	<ul style="list-style-type: none">▶ Shapes, coloured papers, stamping tools, stamp pads, ink, water colours, vegetables etc.

Integration: Arts Education

Life Skills: Logical thinking

Theme 1: Numbers

Children will be enabled to understand how the place value system works thereby helping them to think about the size of large numbers that they have not counted. Estimation is an essential skill that demonstrates number sense about base 10 system. Activities based on items such as beans or marbles help children develop strategies for estimating quantities. Numerals are written in both compact form and expanded form is used in algorithms. Rounding is a skill to estimation that requires understanding of a relationship between numbers. Opportunities will be provided to facilitate children's use of the place value frame and place value chart to represent large numbers. They will learn to express numbers in many ways like with words (number names), numerals and words, numerals only and finally develop scientific or exponential notations for large numbers in higher classes.

Learning Outcomes:

Children will be able to:

- ✓ read and write large numbers up to crores using the Indian numeration system;
- ✓ compare the Indian numeration system with the International system and read, write numbers using International numeration system;
- ✓ use place value to write a number in expanded form and vice versa;
- ✓ compare large numbers using place value;
- ✓ use place value to form greatest and smallest numbers from the given digits;
- ✓ round off numbers to nearest 10s, 100s or 1000th;
- ✓ represent numbers using roman symbols;
- ✓ acquire understanding about fractions;
- ✓ find the fractional part of a collection;
- ✓ identify and form equivalent fractions of a given fraction;
- ✓ express a given fraction $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ in decimal notation and vice-versa. For example, in using units of length and money - ₹ 5 is half of ₹ 10.

Numbers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Indian and International system of numbers- 9 digits numbers. ▶ Place value and face value. ▶ Expanded form. ▶ Comparison of the numbers. ▶ Ascending and descending order of numbers. ▶ Formation of greatest and smallest numbers from the given digits. 	<ul style="list-style-type: none"> ▶ Collecting and discussing various contexts in which large numbers are used like cost of properties, distance between planets etc. ▶ Involving children in collecting information from newspapers and magazines having large numbers should be encouraged to write the equivalent 	<ul style="list-style-type: none"> ▶ 9 Sets of number cards from 0-9 to create large numbers. ▶ New papers and magazine cutting having references of large numbers. ▶ Spike abacus with 9 spikes to represent numbers up to 9-digits.

Numbers

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Rounding off numbers-nearest 10, 100, 1000. ▶ Construction of Multiplication Tables - 2 to 20. ▶ Addition, Subtraction, Multiplication, Division by 2-digit division. ▶ Word problems. ▶ Roman numerals for large numbers. 	<p>Indian/International number system.</p> <ul style="list-style-type: none"> ▶ Practicing place value and its understanding through games/activities and concrete materials. ▶ Encouraging children to form rules for comparison of large number through exploration/patterns. ▶ Using newspapers and other reports to show how approximation of numbers is used in day to day life. Children should also be encouraged to discover rules of rounding off/approximation. 	

Theme 2: Number Operations

The confidence gained in using standard algorithms for operations on whole numbers leads children to use them efficiently for problem solving and in addition, subtraction, multiplication and division of common fractions, decimal fractions and integers in later classes. Using manipulatives like place-value charts, unifix cubes and base ten blocks, 10X10 number grid and number line strengthens the understanding of standard algorithms. In using manipulatives in this context, children can be encouraged to work in pairs, one working with the models and the other recording the steps. It is important that children record the steps as they model them.

Learning Outcomes:

Children will be able to:

- ✔ apply the understanding of place value of numbers beyond 1000 in the four operations;
- ✔ divide a given number by another number (up to two digits);
- ✔ estimate sum, difference, product and quotient of numbers and verifies the same;
- ✔ use standard algorithms in addition subtraction and multiplication of numbers;
- ✔ divide a given number by another number (up to 2 digits) by using standard algorithm;
- ✔ solve problems involving four operations addition, subtraction, multiplication and division in different real life contexts;
- ✔ frame word problems based on mathematical statements involving number operations;
- ✔ explain the meaning of factors, multiples prime and composite numbers;
- ✔ find and displays multiples and factors of numbers using various techniques (e.g. factor tree);
- ✔ discover prime & composite number in the number sequence up to 100.

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Standard algorithms for addition subtraction and multiplication of large numbers. ➤ Division of given number by another number (up to 2 digits). ➤ Framing and solving Problem from real life contexts involving number operations. ➤ Estimation of the sum, difference, product and quotient of two or more 	<ul style="list-style-type: none"> ➤ Exploring alternate algorithms for all four operations in addition to standard algorithms. ➤ Dividing numbers using different strategies like using standard algorithms or breaking a number and then using operation. (For example, to divide 9450 by 25, divide 9000 by 25, 400 by 25, and finally 50 by 25 to obtain the answer by adding all these quotients). ➤ Providing opportunities to explore the meaning of factors. 	<ul style="list-style-type: none"> ➤ Number cards and place value cards. (These will be used to demonstrate various algorithms for operations on numbers). ➤ Play money notes and coins (for representation of numbers according to place value).

Number Operations		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
numbers.	<ul style="list-style-type: none"> ▶ Creating contextual problems (within the child's daily life context) as word stories and exchange them with peers to solve. ▶ Providing opportunities for children to frame rules for estimation of the net result of four operations applied on numbers in daily life contexts. 	

Life Skills: solving daily life problems

Theme 3: Fractions and Decimals

Children's comprehension of whole numbers and common fractions forms the basis for their understanding of decimal fractions. Real-world examples of things separated into tenths and hundredths are less common than are examples of common fractions. A better understanding will be developed through metric sub units like Deci (one-tenth), centi (one-hundredth), milli (one-thousandth) etc. An understanding of decimal fractions and their relationship with common fractions develops gradually, thus the focus will be on work with physical material, diagrams and real life situations.

Learning Outcomes:

Children will be able to:

- ✓ define proper, improper and mixed fractions;
- ✓ write equivalent fractions of given fraction by multiplying/dividing numerator and denominator;
- ✓ compare 3 or more fractions;
- ✓ add and subtract unlike fractions and mixed numbers;
- ✓ solve word problems on addition and subtraction of fractions;
- ✓ explain multiplication of fraction as 'of';
- ✓ multiply fractions- fraction by a whole number, fraction by fraction;
- ✓ relate fractions with denominator 10, 100, 1000 as decimal fraction;
- ✓ represent decimal fractions pictorially;
- ✓ find place value of decimal fractions as -tenths, hundredths, thousandths etc.;
- ✓ expand decimal fractions e.g. $234.67 = 200 + 30 + 4 + \frac{6}{10} + \frac{7}{100}$;
- ✓ classify decimal fractions as equivalent, like, and unlike;
- ✓ compare and order decimal fractions;
- ✓ add and subtract decimal fractions;
- ✓ solve word problems on addition and subtraction of decimal numbers;
- ✓ construct rules to multiply decimal fraction by 10, 100, 1000;
- ✓ multiply decimal number by whole number and decimal number by decimal number.

Fractions and Decimals

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Comparison of 3 or more fractions. ➤ Addition and subtraction of unlike fractions. ➤ Addition and subtraction of mixed numbers. ➤ Word problems on addition and subtraction of fractions. ➤ Multiplication of fractions- fraction by whole numbers and fraction and fraction. ➤ Division of fractions- whole number by a fraction, fraction by a fraction. ➤ Relationship between fractions and Decimals fraction. ➤ Pictorial representation of decimal fraction. ➤ Place value of decimal fraction- tenths, hundredths, thousandths. ➤ Expanded form: Decimal and fraction expansion ➤ Types of decimal fractions- equivalent, like, and unlike ➤ Comparing decimal fractions. ➤ Ordering of decimal fraction ➤ Addition and subtraction of decimal fraction. ➤ Word problems on addition and subtraction of decimal fraction. ➤ Multiplication of decimal fractions by 10, 100, 1000. ➤ Multiplication of decimal number by whole number and decimal number by decimal number. 	<ul style="list-style-type: none"> ➤ Using Paper folding to demonstrate like-unlike fractions, addition and subtraction of fractions and equivalent fractions. ➤ Encouraging children using origami paper for folding into equal number of parts to show fractions and their operations. ➤ Conducting activities for multiplication of fraction by another fraction as operation “of” through paper folding, coloring and forming rules. For example, $\frac{1}{2} \times \frac{1}{3}$ is half of one – third ➤ Associating the idea of division of fractions with division of whole numbers as number of times the divisor lies in the dividend. For example, $\frac{1}{2} \div \frac{1}{4}$ means number of $\frac{1}{4}$ in $\frac{1}{2}$ which is nothing but 2. ➤ Introducing through demonstration -decimal fractions as fraction with 10, 100, 1000 etc. as denominators and discussing the ways in which such numbers can be written using place value system. ➤ Involving children in framing rules to operate decimal fractions using the rules used for operating fractions. ➤ Measuring tape and scale can be used to demonstrate fractions, decimals and their relationship. 	<ul style="list-style-type: none"> ➤ Origami paper (<i>for showing fractions and their operations by folding in to equal number of parts</i>). ➤ Bending wire. ➤ Wooden sticks. ➤ Number cards. ➤ Measuring tape and scale.

Theme 4: Playing with Numbers (Factors and Multiples)

There are many relationships in the Numbers system which include even and odd numbers, prime and composite numbers. The classification of numbers into two groups is made on the basis of some properties of the numbers. Factors are one of such properties. Work with prime and composite numbers extends understanding of factors, divisors and multiples encountered in the study of multiplication and division. Children should learn that factors and division mean the same thing and that they can be used interchangeably. When two whole numbers are multiplied they should yield a product and can be called either factors or divisors of their product (exceptionally zero can be a factor but not a divisor). The product of two numbers also called multiple of the two numbers is another concept that is directly related with multiplication of numbers. The children then can adopt any of the two ways of finding factors of numbers; determining by examination and the second more systematic way is using factor trees. children must be advised to use the examination method to factor numbers and to name the greatest of them as HCF. Likewise they should adopt their own ways to find and name the smallest multiple of two or numbers as their LCM.

Learning Outcomes:

Children will be able to:

- write multiples of numbers;
- find factors of numbers;
- identify prime and composite numbers, twin primes and co-prime numbers;
- test divisibility of numbers by 2, 3, 4 and 5;
- find prime factors- by Factor Tree;
- find the Highest Common Factor (HCF)- Listing Method and Common Division;
- find the Lowest Common Multiples (LCM)- Listing Method and Common division;
- relate HCF and LCM and uses to find one when other is given.

Factors and Multiples		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Factors, common factors and Highest common factors of two numbers. ▶ Multiples, common multiples and Lowest Common multiples of two numbers. ▶ Prime and composite numbers, Twin primes and co-prime. ▶ Prime factors- Factor Tree Method. ▶ Highest Common Factor(HCF)- Listing Method 	<ul style="list-style-type: none"> ▶ Exploring counting numbers for multiples of numbers through various strategies like multiplication tables, number line, skipping the number etc. ▶ Using various strategies by children monitored by the teacher to find factors of a number. ▶ Involving children in finding and displaying 	<ul style="list-style-type: none"> ▶ Set of counters. (so that children can make equal groups to understand factors like, 24 counters can be grouped equally in to 24, 12, 8, 6, 4, 3, 2 and 1 groups) ▶ Wooden sticks of same and different sizes.

Factors and Multiples






Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>and Common Division.</p> <ul style="list-style-type: none">▶ Lowest Common Multiples(LCM)- Listing Method and Common Division.▶ Relationship between HCF and LCM.▶ Test for divisibility by 2, 3, 4, 5, 9 10, 11 (forming rules by observation).	<p>multiples and factors of numbers using various techniques (e.g. <i>factor tree, multiplication tables, skip counting on a number line etc.</i>)</p> <ul style="list-style-type: none">▶ Encouraging children to find prime numbers based on factors. Discussion may be held with them focusing on why prime numbers are important and useful.▶ Involving children in discovering prime and composite numbers in the number sequence up to 100.	

Theme 5: Introduction to Negative Numbers

The concept of a number having a value of less than zero and number indicating a direction are not easily understandable through words alone. In this theme children through situations will be exposed to involving negative and positive number (integers). This will enable children to visualize and understand them better. Number line helps children understand moving up and down the number sequence, magnitude of numbers and the concepts of more than and less than. When used to compare numbers, children see that any number is greater than any other number to its left. The same property holds for negative numbers too. When integers are ordered on a number line, as negatives number get larger their value get smaller and smaller.

Learning Outcomes:

Children will be able to:

-  represent whole numbers through number line;
-  develop idea of integers as counting number, zero and negatives of counting numbers;
-  compare integers through number line;
-  arrange integers in ascending and descending order;
-  add and subtract integers.

Introduction to negative numbers

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Introduction to negative numbers through number line. ➤ Idea of integers as counting number, zero and negatives of counting numbers. ➤ Comparison of integers through number line. ➤ Ascending and Descending order of integer. ➤ Rules for addition, subtraction of integers. 	<ul style="list-style-type: none"> ➤ Involving children in discussion to have necessity of numbers less than zero like having measurement in opposite directions with reference to a point (<i>above and below sea level, temperature above and below zero etc.</i>) ➤ Encouraging children to use number line for representation of negative numbers. ➤ Letting children explore the ways to name negative and positive numbers together along with zero. ➤ Using number line to show that negative numbers are mirror image points corresponding to counting numbers (<i>natural numbers</i>) ➤ Number line may be used to represent integers and their ascending and descending orders. 	<ul style="list-style-type: none"> ➤ Number line. ➤ Counters of two colours where the colours represent opposite numbers.

Theme 6: Geometry

The levels described by the Van Hieles are sequential, and success at one level depends on the development of geometric thinking at the preceding level. Typically, children at the primary level demonstrate characteristics of level 0 and are moving toward level 1 of the Van Hieles' levels of geometric thought. Children entering the class V are most likely functioning in the visualization and analysis levels (0 and 1) of geometric thought. The goal of teaching geometry at this stage is to provide instructional activities that will encourage children to develop thinking and reasoning skills needed to move towards level 2 of the hierarchy, informal deduction (at upper primary stage). Building on children's experiences with non-standard to standard measures they are ready to begin work with acquiring a confidence in using standard units and relate bigger to smaller and vice-versa.

Learning Outcomes:

Children will be able to:

- ☑ explore idea of angles and shapes;
- ☑ classify angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing;
- ☑ identify 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes;
- ☑ identify angles in the environment through observation and paper folding;
- ☑ identify rights angles in the objects and in the environment;
- ☑ classify angles into right, acute, obtuse angles based on their visible attributes;
- ☑ represent different angles (like acute, obtuse, right angles) by drawing and tracing on the paper;
- ☑ explore symmetry in familiar 3D shapes;
- ☑ explore reflection symmetry and rotational symmetry w.r.t. to familiar 2D- geometrical shapes;
- ☑ construct the shapes of cubes, cuboids, cylinders and cones from the given nets (designed for this purpose).

Geometry		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Angle and its measures. ➤ Classification of angles into right, acute, obtuse angles. ➤ Identification and representation of acute, obtuse and right angles. ➤ Symmetry in familiar 3D 	<ul style="list-style-type: none"> ➤ Using paper folding activities (fold art angle) right angles can be identified in the vicinity and in objects. ➤ Buildings, class room door windows etc. can provide excellent concrete support to the concept of an angle. 	<ul style="list-style-type: none"> ➤ Coloured papers, cardboards, scissors, etc. ➤ Small pieces of mirrors with rounded edge. ➤ Empty card board boxes. ➤ Thick card board sheets, pencils, markers and cutters.

Geometry

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>shapes like Cube, human body, buildings etc.</p> <ul style="list-style-type: none"> ➤ Reflection and rotational symmetry in familiar 2D-geometrical shapes like circle, rectangle, square, triangle and circles. ➤ Nets of cubes, cuboids, cylinders and cones. 	<ul style="list-style-type: none"> ➤ Classification of angles may be encouraged by finding obtuse and acute angles in surroundings and in the objects around us. ➤ Discovering symmetry in the objects/environment may be encouraged. ➤ Using concrete materials to explore reflective as well as rotational symmetry. Card board cut out shapes, may be rotated from different points to find out their rotational symmetry. Paper folding, making shapes/designs using carbon papers etc. may be used for developing a deeper understanding of concept of the symmetry. ➤ Encouraging children to bring empty boxes, open them up and trace their nets. Also using the nets so traced are able to create boxes. 	

Integration: Science (Solids, Liquids and Gases)

Theme 7: Measurement

The early learning of measurement is largely inventive and investigative by nature. Children up to primary grades begin with activities to establish the everyday contexts for measurement and to introduce measurement with nonstandard units. This theme will enable children to begin to conserve length and area and understand that these concepts do not change, even when an object's position or appearance is altered. Children will also learn to use standard units by providing them frequent opportunities to measure objects so that they construct their understanding of units and of the measurement process.

Learning Outcomes:

Children will be able to:

- ✎ relate different commonly used larger and smaller units of length, weight, time and money and convert larger units to smaller units and vice versa;
- ✎ estimate the volume of a solid body in known units like volume of a bucket in about 20 times that of a mug;
- ✎ apply the four operations in solving problems involving money, length, mass, capacity and time intervals;
- ✎ explain the terms area and perimeter of simple geometrical shapes;
- ✎ compute area and perimeter of simple geometrical shapes.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Area and perimeter of simple geometrical shapes; ideas and their measurement. ➤ Daily life problems involving length, weight, time, money & volume: Use of four number operations. ➤ Idea of larger and smaller units of length, weight, time, money & volume and conversion . 	<ul style="list-style-type: none"> ➤ Developing and using Square grids, dot grid to facilitate the understanding of concepts related to area and perimeter. ➤ Conducting exploration activities with groups of children to infer that area and perimeter are not co-related i.e. figures having same area may have different perimeters. ➤ Creating and solving contextual problems regarding calculations of length, weight, volume etc. ➤ Providing practice questions for inter conversion of bigger units into smaller units and vice versa in various interesting ways. 	<ul style="list-style-type: none"> ➤ Squared grid papers, dot grid printed papers. ➤ Coloured markers, scissors etc. ➤ Daily life objects such as match boxes, sugar cubes, paper weight, etc. (<i>for demonstration of length, area, volume and weight</i>).

Integration: Science







Life Skills: solving daily life problems

Theme 8: Introduction to Percentage

This theme will focus on children becoming aware and understanding the importance use and different applications of percentage in a variety of ways in many daily life aspects. Percent expresses a relationship between some number and 100. The symbol % and word percent means per hundred or out of hundred. The children at this stage will be provided opportunities to understand the meaning of percent through their experiences. As percent is common fraction with 100 as denominator, so it is also a decimal fraction representing hundredths. A conscious attempt will be made to extensively build on children's understanding about these earlier learnt concepts to further build their understanding about percent.

Learning Outcomes:

Children will be able to:

-  define percentages as fraction with 100 as denominator;
-  establish relationship between fractions, decimal fractions and percentages;
-  pictorially represent percentage;
-  convert fractions to percentages and vice-versa;
-  convert decimals to percentages and vice-versa;
-  solve simple word problem on percentage.

Introduction to Percentage		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Introduction of percentages. ➤ Relationship between fractions, decimals and percentage. ➤ Pictorial representation of percentage. ➤ Conversion of fractions to percentages and percentages to Fractions. ➤ Conversion of decimals to percentages and percentages to decimals. ➤ Simple word problems on percentage. 	<ul style="list-style-type: none"> ➤ Introducing percentage as fraction with denominator as 100 and relating it with decimal representation. ➤ Letting children form the rules for percentage and conversion using the known rules of fractional and decimals. ➤ Encouraging children to relate their marks obtained in different subject with percentage. ➤ Measuring tapes, scales may be used to explain fractions and decimals. 	<ul style="list-style-type: none"> ➤ Measuring tape. ➤ Scale. ➤ Number sticks. ➤ Paper magazine cuttings.

Life Skills: solving daily life problems

Theme 9: Data Handling

Various graphs like pie charts, line graphs and bar graphs relate to children's daily life experiences like newspapers and sports transmission shown on TV. Children will be encouraged to devise their own ways of reading and interpreting these pictographs. At this stage children are skilled to attempt the drawing of bar graphs for the data either collected by them or obtained from other sources. The data related to issues related to environment, classroom activities etc. will help children in connecting the skill of data handling with their daily activities.

Learning Outcomes:

Children will be able to:

- collect data related to various daily life situations, represents it in tabular form and by bar graphs and interpret a given bar graph.
- interpret pie charts and line graphs generally found in newspapers and magazines.

Data Handling		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">Pictorial representation of the raw data.Interpretation of Bar graph, line graph and pie chart.	<ul style="list-style-type: none">Conducting group activities on data collection, tabulation (in graphic form) and interpretation within and outside classrooms.Advising children to make presentation as groups on their whole activity as a project. This should have tabular and graphical representations as used in newspaper/magazinesProviding opportunities to interpret pie charts and line graphs given in textbooks, newspaper and magazine cuttings.	<ul style="list-style-type: none">Coloured papers, stickers of different objects, glue sticks.Newspaper and magazines cuttings having bar graphs, pie charts and line graphs.

Integration: Arts Education

Life Skills: analysis and interpretation

Theme 10: Patterns

Children are now confident at this stage with observing and generalizing patterns in numbers and shapes. This will help them in other themes of mathematics like applying operations on numbers (whole numbers, common and decimal fractions), properties of various 2-D shapes and 3-D figures and measurements. They should explore additional properties of whole numbers like triangular and square numbers through patterns.

Learning Outcomes:

Children will be able to:

- observe and identify patterns with a unit of repeat and extend it;
- observe and generalize a rule to extend a progressive pattern;
- create a pattern with more than one characteristic;
- observe and generalize patterns of triangular and square numbers.

Patterns		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Patterns with a unit of repeat and their extension. ➤ Progressive patterns. ➤ Extension of progressive patterns. ➤ Patterns with more than one characteristic. ➤ Triangular and square numbers. 	<ul style="list-style-type: none"> ➤ Providing a lot of patterns that are in the near vicinity of children and have a unit of repeat. Let them identify this unit and extend the pattern. ➤ Dividing children in to group of two-three each. Let one group form a pattern with repeat and other extend it. ➤ Giving exposure to progressive patterns which are commonly found in numbers and shapes. For example: <p style="margin-left: 20px;">2, 4, 6,; 5, 10, 15, 20,</p> <p style="margin-left: 20px;">..... </p> <ul style="list-style-type: none"> ➤ Providing opportunities for finding a rule for extension of the pattern of numbers that can be placed as triangle and square. Let children find further few terms on the basis of the rule and without finding all previous terms. ➤ Triangular numbers <div style="margin-left: 20px;"> <p style="margin-left: 40px;">1 3 6 10</p> </div> <p style="margin-left: 20px;">Square Numbers</p> <div style="margin-left: 20px;"> <p style="margin-left: 40px;">1 4 9</p> </div>	<ul style="list-style-type: none"> ➤ Number sticks. ➤ Triangular, square, rectangular shapes made from thick paper cutter. ➤ Use of charts showing patterns with numbers, and different shapes.

Integration: Arts Education

Life Skill: Logical thinking, reasoning

*ENVIRONMENTAL
STUDIES*

In the present curriculum in Classes I and II, Environmental Studies has been identified as a core curricular area, focusing on natural, social and cultural environment in an integrated manner. In Classes III to V, Science and Social Studies have been identified as separate curricular areas, in which environmental issues and concerns have been infused separately in both the areas.

Objectives of teaching-learning of EVS in Classes I & II

The major objectives of EVS teaching-learning is to enable children to:

- **Learn about the environment-** by developing awareness of the natural, social and cultural environment and issues/concepts in a holistic manner through various activities, skills, values.
- **Learn through the environment** -lays emphasis on using various environmental objects, places, plants, animals, etc. as learning resources in the learning process.
- **Learn for the environment** -emphasizes inculcation of values, attitudes and skills related to protection of the environment.
- Enhance/promote curiosity and creativity in relation to the surroundings.
- Develop an appreciation for diversity (language, family, habits, variations in plants, animals, culture etc.) in the immediate surroundings.
- Develop sensitivity towards elderly/old, differently abled and disadvantaged groups of the society focusing on their strengths as well as the areas of concern.

Broad Skills/ Processes that EVS Learning Promotes:

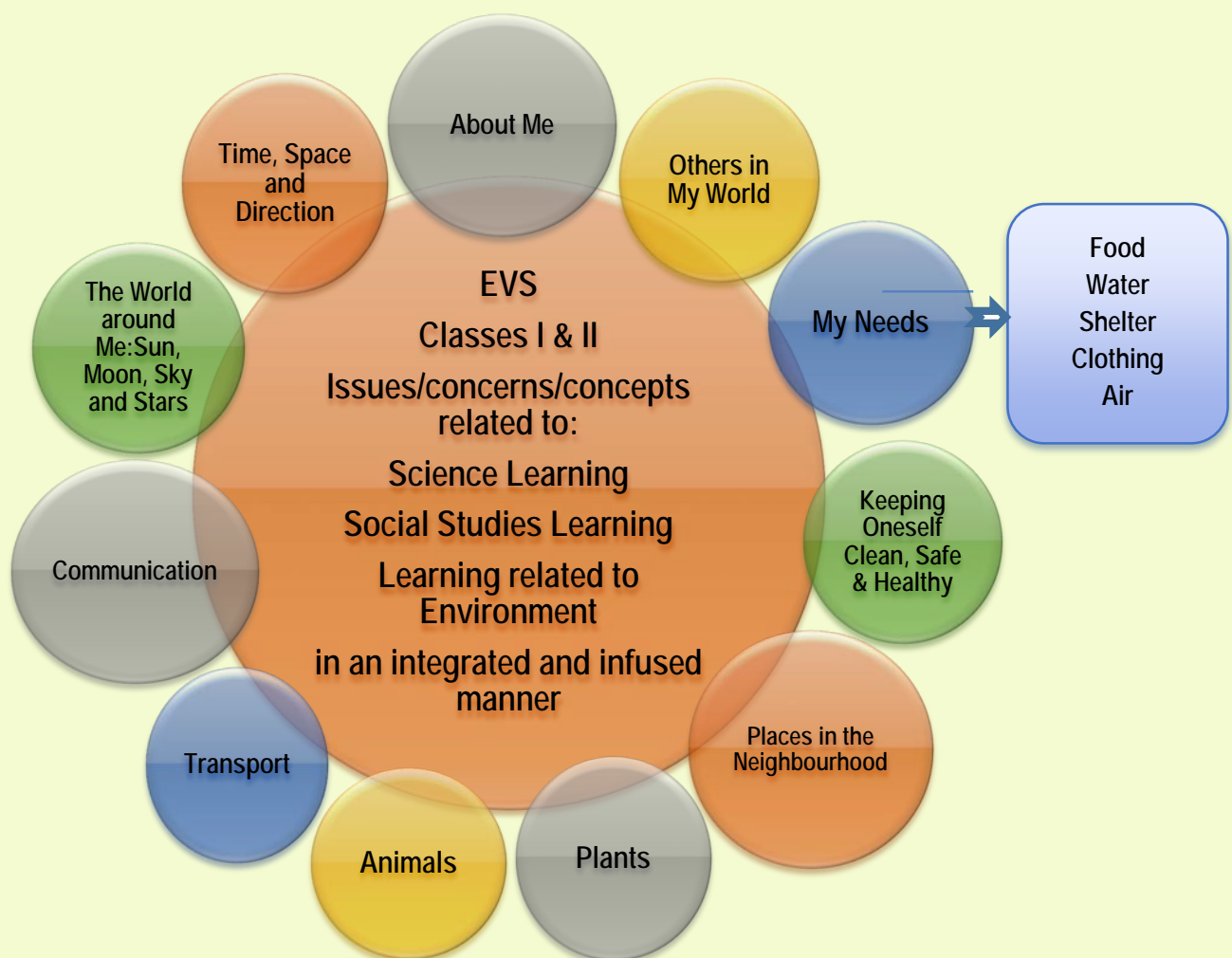
1. *Observation and Reporting* - Exploring, sharing, narrating and drawing, picture-reading, making pictures, collecting and recording information.
2. *Discussion:* Listening, talking, expressing opinion, discovering.
3. *Expression* - Expressing through gestures/ body movements, expressing verbally, expressing through drawing/writing/ sculpting, expressing through creative writing.
4. *Explanation* - Reasoning, making simple logical connections, describing events/situations, formulating one's own reasoning's.
5. *Classification* - Identifying objects-based on observable features, identifying similarities and differences in objects, sorting/grouping objects based on observable features. Comparing objects and classifying them based on physical features.
6. *Questioning* - Expresses curiosity, asks questions, frames simple questions.
7. *Analysis* - Defining situations/ events, identifying/predicting possible causes of any event/situation.
8. *Experimentation (Hands on activities)* - Improvising, making simple things and performing simple experiments.
9. *Concern for Justice and Equality* - Sensitivity towards the disadvantaged or people with special needs, showing concern for the environment.
10. *Cooperation* -Taking initiatives, sharing and working together with empathy.

Some suggestive pedagogical principles for EVS teaching-learning

While transacting this EVS Curriculum some pedagogical principles must be taken into account:

- **EVS learning needs to be theme-based rather than topic-based** as suggested in the present curriculum, therefore in each identified theme, the concerns and issues related to physical, social and cultural and environmental concerns/concepts need to be discussed holistically and critically so that the child can make informed choices.

Suggested Themes for Environmental Studies



- **Each child is unique has her/his own style and pace of learning.** The challenge before the teacher is how to handle a multilevel group so as to address the needs of all children including the differently abled /children with special needs.
- **Active participation of children is important** in constructing knowledge. Children need to be given a lot of meaningful opportunities for observation and exploration, using a variety of learning resources such, as visit to a park, museum, water bodies and various places in the community.
- Children in early classes learn through **various ways**. More opportunities need to be provided to explore, observe, draw, categorise, discuss/speak, ask questions, enlist, etc. to develop various skills/processes. Interaction with family members, visits to community places, using concrete objects such as, newspapers and books other than textbooks, are major sources of learning in EVS.
- Efforts should be made by the teachers to **relate the child's local knowledge to what is learnt in class**; this would discourage the rote memorization and encourage the developmentally age-appropriate learning of this area.
- **Visuals/illustrations play a very pivotal role** in EVS learning. Picture reading based activities should be encouraged. Such activities are not only enjoyable, but also provide opportunities to develop critical thinking among children.
- **Activities and questions have an important place in EVS learning.** Thus, activities/questions should not only be used for assessing children but also for developing skills and as an opportunity for children to express themselves.
- Suitable ways must be found to **sensitize children to the wide differences** that exist within our society relating to gender discrimination, children belonging to marginalized groups and children with special needs.

Points to remember for EVS classroom learning

- The language used in EVS classroom should not be technical.
- Opportunities need to be given to children to interact with the peer group, elders, and the environment to construct knowledge.
- The child's level of learning can be extended with the support of adults (scaffolding) and they can be helped to cross the Zone of Proximal Development (ZPD).
- EVS learning must encourage the development of processes and skills.
- Objects, resources, material found in the natural environment should preferably be used.

The above themes highlighted in the diagram are dealt with separately for Classes 1 and 2 in the sections that follow.

Theme 1: About Me

The theme "About Me" is aimed at providing information to and making children aware of themselves such as parts of the body and their functions, their belongings, hobbies, interests. It will also develop skills/ processes such as observation, creative expression, communication and verbal expression. The prime focus of this theme is on the child expressing her/his own ideas and learning social skills.

Learning Outcomes:

Children will be able to:

- ☑ share and verbally communicate their personal details, i.e. own name, name of parents' / siblings, address, birthday date, phone number, etc.;
- ☑ identify and name the parts of the body;
- ☑ distinguish between functions of different parts of the body (both sense organs and large parts);
- ☑ draw various parts of the body (large parts);
- ☑ share their hobbies, likes and dislikes and learn to appreciate those of others;
- ☑ identify the differences in the peer group – hair, eye colour, height, weight;
- ☑ solve (6-8 pieces) body puzzle problems independently;
- ☑ make choices about their belongings;
- ☑ identify their own and others' feelings (sad, angry, happy, surprised, excited);
- ☑ learn to develop control over emotions;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ engage in and learn to cooperate in small and large group activities.

About Me

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Personal details of self: name, parents' name, address, phone number, birthday date, etc. ▷ Parts of the Body (External: head, chest, legs, hands, shoulders, elbow, wrists, fingers, face, cheeks, etc.). ▷ Sense Organs and functions. ▷ Likes & dislikes of oneself. ▷ Hobbies 	<ul style="list-style-type: none"> ▷ Providing opportunities for sharing personal experiences. ▷ Using various action songs, drawings for self-awareness. ▷ Initiating discussion on body parts/ personal things. ▷ Providing jigsaw puzzles on making parts of the body. ▷ Developing models of the different body parts from clay. ▷ Providing opportunities to observe picture cards (flash cards) and matching with their functions related cards. ▷ Video watching on parts of the body. ▷ Discussing differences among peer group and learn to appreciate the differences. ▷ Designing activities for children to learn how to look after themselves. 	<ul style="list-style-type: none"> ▷ Children's own learning experiences related with their personal things, body parts. ▷ Picture cards on body parts and their functions ▷ Jigsaw puzzles. ▷ Poems/riddles, songs, jingles on this theme. ▷ Flipbook on body parts and their functions. ▷ Photo album of self with family. ▷ Video on body parts/ puzzles. ▷ Name games. ▷ Colour and shape dominoes.

About Me

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">➤ Involving children in origami activity to develop creative expression.➤ Making of clay model on body parts, personal objects.➤ Involving children in hobbies/ to develop various skills such as drawing, picture reading, creative expression, verbal communication skills.➤ Providing opportunities to attempt to write poems, songs, to develop verbal and creative expression.➤ Engaging children in the upkeep of the classroom after playing with activity material (to learn cooperation and working together.)➤ Giving simple projects (with the support of elders) such as flip book, photo album, etc.	

Integration: Health & Physical Education, Arts Education and Languages

Life Skills: Self -awareness, Co-operation, Working in teams



Theme 2: Others in my World

The theme is expected to develop an understanding about others in the child's world, which would include family members, neighbours, friends and also pets. The theme is also expected to focus on issues and concepts related to neighbourhood, indoor/outdoor games and significance of celebrating festivals.

Learning Outcomes:

Children will be able to:

- name the family members verbally;
- identify and differentiate between a Joint and Nuclear Family;
- appreciate variation in family structure and discuss reasons for differences;
- identify and share information on festivals celebrated in the family;
- identify relationship with different family members, describe (name) the relationship;
- draw the family tree of close relatives (grandparents, parents, children);
- describe the family's role and responsibilities in his/ her own words;
- discuss and share personal experiences related to one's family;
- appreciate need for neighbours (society) and friends;
- appreciate how neighbours help one another in day-to-day life.

Others in my World		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Name of the family members, their roles, habits and hobbies, relationships with family members, family tree. ▷ Variation in family structure ▷ My neighbours, My friends, any Pets. ▷ Celebrations in the family and neighbourhood. ▷ Festivals: fun & sharing, time with family, friends and neighbours. ▷ Games with peer and family members for recreation. 	<ul style="list-style-type: none"> ▷ Providing opportunities to share the names and number of members in the family (through bar graph or family tree). ▷ Listing and describing people children meet/see in their neighbourhood. ▷ Opportunities for describing festivals and fun time with family and friends. ▷ Providing opportunities to discuss and share role of family members and their habits/ hobbies. ▷ Organising activities to draw pictures/ paste photographs of family members, friends. ▷ Guiding/ assigning project to children to develop and draw family tree of family members ▷ Developing creative expression – through drawings, origami, puppet making, making photo albums, songs and poems related to this theme. ▷ Identifying and organizing indoor and outdoor games (in groups) and discussing the rules of the games. ▷ Appreciating differences in family members and respecting their differences. ▷ Creating a book on 'About me'. 	<ul style="list-style-type: none"> ▷ Thumb impression (creative expression). ▷ Puppet show (story narration). ▷ Flash card/PPT for quiz celebration. ▷ Family album. ▷ Flip booklet. ▷ Experiences related to festival celebrations. ▷ Games and recreational activities. ▷ Activities/games related to the five senses. ▷ Circle time activities.

Integration: Mathematics, Arts Education, Languages

Life Skills: Self-awareness, communication skills

Theme 3: My Needs - Food We Eat

The theme 'food' is introduced in the early grades with the expectation of focusing on the need and importance of food for living beings. The theme food discusses various issues and concerns related to food items. The theme is also expected to develop some core skills among children i.e. observation, discussion skills appreciating diversity in food. The various life skills i.e. self-awareness, respect, would also be inculcated from this theme.

Learning Outcomes:

Children will be able to:

- name and discuss about food items eaten at home;
- identify food items eaten in raw/cooked form and give examples of each;
- cite examples of food items got from plants;
- cite examples of food items got from animals;
- enlist food items cooked during festivals;
- give reasons why food of the young ones is different from that of adults;
- develop sensitivity towards food not be wasted;
- distinguish between food items obtained from plants and animals;
- demonstrate healthy eating habits
- appreciate the diversity in food items in different families;

My Needs - Food We Eat		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Food eaten (daily) in the family. ▷ Food eaten in raw/cooked form. ▷ Food cooked during festivals in the family/neighbours. ▷ Food we get from plants and animals. ▷ Need and respect for food. ▷ Healthy eating habits. ▷ Food of different people: young ones, old people, patients, etc. 	<ul style="list-style-type: none"> ▷ Discussing children's personal experiences related to food eaten at home. ▷ Discussing and enlisting food items eaten by them and not eaten by them. ▷ Showing and using various kind of actual food items & discussing about them in the class. ▷ Showing raw/cooked food. ▷ Showing and discussing about plant/animal product as food. ▷ Sharing narratives to inculcate values regarding respect for food. ▷ Developing observing, classifying skills by using various food items as group activity. ▷ Providing opportunities to collect/ make poems/songs /riddles on food to develop creative expression skill. ▷ Providing opportunities to do project work on the theme food (Plants and animals as a source of food, animals as source of food). ▷ Organising a discussion on food variation among family members (the old, the young and the infants). ▷ Drawing pictures of food items, colour, name them, activities related to origami. 	<ul style="list-style-type: none"> ▷ Actual food items (for identification). ▷ Pictures of various food items received from plants and animals (Picture cards), picture dominoes. ▷ Crossword puzzles and quizzes on food. ▷ Lists of food items cooked during different festivals in the family with pictures. ▷ Project Work (Plants and animals as a sources of food) ▷ Papers.

Integration: Languages, Health and Physical Education

Theme 4: My Needs - Water

The theme aims at developing awareness on water as a basic necessity/need for all living beings and related aspects and issues. The theme would focus on sources of water in the family/neighbourhood, storage of water, simple properties of water and concern towards wastage of water. A number of core skills i.e. observation, discussion, experimentation need to be developed through this theme.

Learning Outcomes:

Children will be able to:

- name and identify various sources of water available at home/in the surroundings;
- describe the various uses of water in the family;
- describe simple properties of water (observable only).
- distinguish activities done with water and without water;
- identify and name the vessels used to store water at home/school;
- give reasons for storage of water at home;
- appreciate the re-use of water related activities;
- discuss ways to avoid wastage of water.

My Needs - Water		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Uses of water in the family. ➤ Sources of water at home and in the surroundings. ➤ Storage of water in the family. ➤ Need for storage of water. ➤ Simple properties of water (colour, taste, smell, shape). ➤ Activities done with and without water in the family. ➤ Need for judicious use of water, reuse of water in the family. 	<ul style="list-style-type: none"> ➤ Initiating discussion on this theme related to children's personal experiences. ➤ Providing opportunities to collect picture of various sources of water/observed used in the surroundings. ➤ Discussing the activities done with/without water in day-to-day life (individually and or in groups). ➤ Providing opportunities to draw/picture of water sources and name them. ➤ Conducting simple activities/experiments to observe properties of water (observable only with elders). ➤ Group assignment to do project work on judicious use of water (Writing slogans, ways to save water, creative expression). ➤ Conducting activities to enlist ways to save water. 	<ul style="list-style-type: none"> ➤ Children's daily life experiences. ➤ Children's local language related to water theme. ➤ Pictures of various sources of water. ➤ Worksheets on different key concepts prepared by the teacher. ➤ Narratives/stories/life experiences on judicious use/reuse of water. ➤ Audio/Videos on water usage and storage. ➤ Project work by children – messages and slogans on judicious use of water.

Integration: Arts Education, Languages, Health and Physical Education.

Life Skills: Self -awareness, Communication skill, Team work, Decision making.

Theme 5: My Needs: Shelter

The theme 'Shelter' is expected to develop an understanding on need for shelter for living beings the different habitats and reasons for variation in the habitats. The theme would also lead to the development of some core skills such as creative expression, discussion, description.

Learning Outcomes:

Children will be able to:

- describe (own words) their own house and name the different areas in the house;
- distinguish between various kind of houses seen in the surroundings;
- discuss and give reasons (own words) for the need for a house; cleanliness of house;
- develop creative expression i.e., decorating the house, writing songs, poem;
- involve in hands-on activities, i.e. making a house, dustbin, Rangoli and decorating material for houses.

My Needs: Shelter		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ My House, Types of houses in the neighbourhood. ➤ Description of a child's own house. ➤ Areas/Places, rooms in the house and work done in these areas/places. ➤ Need for a house. ➤ Cleanliness of house. ➤ Use of dustbins. ➤ Ways of decorating houses. 	<ul style="list-style-type: none"> ➤ Creating situations for discussing/ to sharing personal experiences. ➤ Providing opportunities to observe pictures of various kind of houses to discuss and appreciate the variations. ➤ Assigning activities to draw pictures of children's own houses and writing a few lines on their houses. ➤ Making a collage of pictures of houses made by children as a group activity. ➤ Writing/Collecting poems/rhymes on houses and sharing them with peers. ➤ Demonstrating some hands-on activity i.e. models of houses made from clay, hard-board, making a dustbin. ➤ Asking children to make decorative articles for the house. ➤ Organizing group discussions on keeping the house clean. ➤ Making a model by using clay/other material available in the environment. 	<ul style="list-style-type: none"> ➤ Videos. ➤ Pictures/drawings of different types of houses. ➤ Clay. ➤ Worksheets developed by the teachers. ➤ Models of houses ➤ Decorative articles

Integration: Languages, Arts Education

Theme 6: My Needs - Clothing

The theme 'Clothing' aims at developing an understanding for its need for human beings. The theme would discuss the kind of textures of clothes worn by people. The emphasis would also be on cleanliness and care of clothes/dresses.

Learning Outcomes:

Children will be able to:

- need and importance of clothing for human beings.
- share and name various kinds of clothes/dresses worn by them and their family members;
- identify the kinds of clothes/ dresses worn by them and their family members;
- differentiate the different kind of dresses worn in different seasons/ festivals / on other occasions;
- appreciate the importance of clothes in daily life.

My Needs - Clothing		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Need for clothes for human beings. ➤ Dresses worn by self and family members, school uniform, name of clothes worn by males and females at home. ➤ Variety of clothes/dresses worn in different seasons, occasions (festivals), by self/family members. ➤ Care of clothes/ dresses (cleanliness). 	<ul style="list-style-type: none"> ➤ Discussing with children about their personal experiences. ➤ Talking about clothes being worn on various occasions. ➤ Providing opportunities to draw pictures of dresses worn by them, colouring and naming them. ➤ Giving opportunities to make various kind of dresses by using used papers/newspapers. ➤ Assigning project work on origami (paper folding). ➤ Organising activities to discuss ways to take care of clothes/ festival clothes. ➤ Discussion with teacher and peer group on cleanliness of dresses. 	<ul style="list-style-type: none"> ➤ Children's learning experiences ➤ Pictures/visuals of various kind of dresses. ➤ Pictures of/Sample dresses worn on various occasions. ➤ Newspapers to make dresses by paper folding (origami).

Integration: Languages



Theme 7: My Needs - Air

The theme 'Air' is aimed at discussing concepts and issues related to air in the daily lives of children. Simple observable properties of air would be discussed under the theme. Through simple activities skills like observation, discussion and experimentation would be developed. The theme would also focus on how to keep the surrounding air clean.

Learning Outcomes:

Children will be able to:

- demonstrate awareness (by citing examples) about the presence of air in the surroundings;
- appreciate the use of air by living beings;
- give reasons how air gets unclean/polluted;
- identify and list out the harmful effects of unclean air for living beings;
- conduct simple experiment/activities related to properties of air (with the support of elders);
- appreciate the need for planting trees to get the clean air.

My Needs - Air		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Some observable features of air (Air has no colour. We feel air when the wind blows). ▷ Uses of air in daily life. ▷ Need for clean air ▷ Harmful effects of unclean air by giving examples. ▷ Planting of trees to keep air clean and fresh. 	<ul style="list-style-type: none"> ▷ Undertaking/Demonstrating to show children the properties of air (<i>air has no colour, one can feel it</i>). ▷ Discussing reasons why air gets polluted (<i>effect of smoke, fuel burning of garbage may be discussed</i>). ▷ Exploring sharing and discussing children's experiences about air in the morning, afternoon, evening time in an open place. ▷ Demonstrating that under trees air is fresher. cleaner and also conduct deep breathing exercises. ▷ Assigning projects to groups on ways to keep air clean. 	<ul style="list-style-type: none"> ▷ Children's experiences related to their immediate surrounding in the morning evening time. ▷ Films on the harmful effect of polluted air. ▷ Balloons, kites to demonstrate presence of air. ▷ Water, matchbox for activity. ▷ Rhymes/stories book on air.

Integration: Languages, Health & Physical Education

Life Skills: Self-awareness, Awareness for healthy living



Theme 8: Keeping Oneself Clean, Safe and Healthy

The theme is expected to provide information on and develop an awareness on the issues and concerns related to cleanliness and health. The theme will focus on how to keep oneself healthy, recreational ways at home/neighbourhood, safety at home and in public places. It would help to develop skills related to self-awareness and self-protection.

Learning Outcomes:

Children will be able to:

- demonstrate personal hygiene of body and clothes;
- demonstrate healthy habits and safety in school/home/playground;
- list out reasons for maintaining a healthy body;
- show awareness of self-protection;
- differentiate between good and bad touch by persons at home, relatives in the neighbourhood / public places, school;
- demonstrate awareness and need for clean surroundings;
- participate in recreational activities (games, play);
- discuss personal problems with family members;
- demonstrate simple exercises/ *asanas* for keeping the body healthy.

Keeping Oneself Clean, Safe and Healthy

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Personal hygiene (hand wash, body, nail, teeth, hair, clothes). ▷ Cleanliness in the house and surroundings. ▷ Use of dustbin in House/school. ▷ How to keep body healthy and fit: rest, exercise, yoga, deep breathing, play games (awareness level). ▷ Indoor and outdoor games for recreation. ▷ Safety at home and outside. ▷ Good/bad touch. ▷ Safety at public places 	<ul style="list-style-type: none"> ▷ Discussing about the need of cleanliness at home, school and surroundings. ▷ Sharing / demonstrating yoga exercises and explaining their benefits. ▷ Organising activities and Listing some indoor and outdoor games enjoyed by children. ▷ Making children aware of good and bad touch by elders at home/school/ neighbourhood and at public places through sharing of experiences and narratives. ▷ Organising group work to involve children in creative expression activities. 	<ul style="list-style-type: none"> ▷ Charts/poster/collage/booklet- by pasting pictures related to with this theme. ▷ Asking a yoga instructor to teach few basic <i>asanas</i>. ▷ Show and tell activity. ▷ Create a play corner with some indoor games displayed for children to use. ▷ Narratives for self-protection. ▷ Awareness related activities.

Integration: Languages, Health and Physical education

Life Skills: Self-awareness and self-protection.

Note: Link this theme with the theme 'About Me'

Theme 9: Places in the neighbourhood

The theme 'Places in the neighbourhood' is aimed at providing information related to various places in the neighbourhood. The theme would also throw some light on the up-keep of public places in the community. People involved with various professions and their needs would also be discussed. Children would learn to appreciate and respect the all kind of work / professions in our day to day life.

Learning Outcomes:

Children will be able to:

- ✔ identify various places, i.e., school, hospital, park, water bodies in the neighbourhood;
- ✔ discuss the roles played by various people in these places;
- ✔ appreciate the role played by the people in keeping these places clean;
- ✔ discuss the role of each place in day-to-day life;
- ✔ demonstrate how to behave in public places.

Places in the neighbourhood		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Various places- Market, Hospitals, Parks, Banks, Fire station, Post office, Bus Stop, Railway Station. ▷ People involved with various professions (Policeman, Doctor, Nurse, Teacher, Gardner, Milkman, Driver, Bus/Train conductor). ▷ Role of community members in the up-keep of public places. 	<ul style="list-style-type: none"> ▷ Discussing with children about their personal experiences, about different places /professions. ▷ Providing opportunities to visit some important places. ▷ Interacting with people who are involved in different professions related with the identified places. ▷ Conducting survey/interview with children to get hands-on experiences. ▷ Assigning simple group/individual projects to children to collect pictures of neighbourhood places and the role played by different people. 	<ul style="list-style-type: none"> ▷ Picture cards of various places and people involved in various professions. ▷ People from different professions. ▷ Narratives/stories/children's own experiences. ▷ Poem/songs on the above theme. ▷ Project Work. ▷ Discussion among peer group, teachers and elders. ▷ Mock /drill exercise. ▷ Role play.

Integration: Languages

Life Skills: Respect, dignity of labour.

Note:

- Link this theme with transport and communication themes.
- Various professions may be added as per the context

Theme 10: Plants

The theme 'Plants' aims at developing an understanding on simple concepts related to plants, variation in plants and uses of plants for human beings. Through this theme the skills expected to be developed are those of observation, discrimination, appreciation along with sensitivity towards care and concern for plants and the environment.

Learning Outcomes:

Children will be able to:

- know about plants and the main parts of a plant;
- identify and name various plants seen in the surroundings;
- distinguish between plants that grow in water and on land;
- cite examples of some medicinal plants used at home;
- draw and label the main parts of plants;
- appreciate the uses of plant products;
- develop sensitivity towards care and protection of plants.

Plants		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Plants/Trees in the surroundings/ in the school (their names only) ▷ Plants on land, water, climbers (names with pictures) ▷ Medicinal Herbs/plants that are used in daily life. ▷ Kinds of fruits, vegetables we eat. ▷ Edible parts of plants (fruits, seeds, leaves of some plants and their names). 	<ul style="list-style-type: none"> ▷ Providing opportunities to share/discuss children's experiences in the class. ▷ Providing opportunities by organizing visits to observe and explore various kinds of plants available in the nearby surroundings. ▷ Discussing plant variations seen based on observation, i.e. colour, shape, size, aroma of leaves, size of plants. ▷ Group work to discuss uses of plants in our day-to-day life, particularly medicinal plants. ▷ Providing opportunities to draw pictures, collect photos, songs. ▷ Involving children in project work (collection of pictures, drawings of plants.). ▷ Discussing / questioning on care and protection of plants. 	<ul style="list-style-type: none"> ▷ Plants seen in the school and at home. ▷ Pictures of some plants that grow in water and on land. ▷ Picture cards of plants. ▷ Nearby places, gardens, picnic spots. ▷ Development of picture books, cards.

Integration: Health and Physical Education, Languages.

Life Skills: Sensitivity towards care and protection of the environment.

Theme 11: Animals

The theme 'Animals' is expected to develop awareness and an understanding of the concepts related to animals. It also aims at developing care and compassion for animals. The theme would also help to develop skills such as observation, classification, care and concern for animals and appreciation of beauty. The expectation of this theme is to acquaint children about different kinds of animals not to classify animals into sub categories/groups.

Learning Outcomes:

Children will be able to:

- ✔ recognize and name the animals/birds seen in the surroundings;
- ✔ identify and name the main body parts of animals;
- ✔ identify and differentiate between pet, domestic and wild animals by citing examples;
- ✔ list common animals and birds that live in water, land and in air;
- ✔ recognize the sounds made by some common animals and birds and mimic them;
- ✔ draw pictures of pet and wild animals and label their main body parts;
- ✔ sing/recite songs/poems on animals and birds;
- ✔ show concern and compassion for animals and birds;
- ✔ appreciate the variation and beauty in animals and birds.

Animals		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Animals seen in the children's surroundings. ➤ Pet, wild and domestic animals. ➤ Care and compassion for pet animals. ➤ Name some common birds seen in the surroundings. ➤ Some common animals/birds living in water, land, air (name only). ➤ Sounds of some familiar animals and birds. ➤ Draw pictures/ make masks of common animals and birds. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share and narrate their experiences related to animals seen by them in their surroundings. ➤ Providing opportunities for observations through different ways i.e. nature walk, visit to nearby garden/zoo, with elders, parents and teachers. ➤ Showing animal cards/pictures/films. ➤ Facilitating play with puzzles and quizzes on animals. ➤ Organizing group activities with children to recognize sounds of animals, birds, their movements and imitating them. ➤ Asking children to draw pictures/paste pictures of some animals and write their names, some features such as, body parts, sounds, etc. below the pictures. ➤ Grouping and sorting activities with animal cards. 	<ul style="list-style-type: none"> ➤ Nearby garden/zoo. ➤ Picture cards of animals/birds. ➤ Charts of animals of domestic, wild, pet, birds and display in the classroom. ➤ Collection of some songs, poems on animals. ➤ Documentary film on animals. ➤ Develop bird bath. ➤ Drawings of animals made by children. ➤ Origami work, masks of animals.

Animals

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">▶ Providing opportunities to develop masks, origami work for creative expression.▶ Assigning Project Work, i.e. picture book, cards, drawings.▶ Creating situations to sensitize children towards animals through discussion, sharing experiences, stories, narratives.	

Integration: Arts Education, Languages

Life Skills: Empathy, Care and tolerance for animals, Sensitivity towards environment and surroundings



Theme 12: Transport

The theme 'Transport' is aimed to provide information and awareness about the various modes of transport, traffic rules, need for emergency vehicles. Skills such as exploration, explanation and clarification skills would also be developed.

Learning Outcomes:

Children will be able to:

- identify the different modes of transport available in the surroundings;
- identify different professions related to transport;
- differentiate between the various kinds of transport used on land, in water and air;
- cite examples of each kind of transport (air, water, land);
- discuss and reason out the causes of noise in the surroundings;
- draw and collect pictures of various kind of transport;
- develop stories/ poems/ songs to express one's own ideas (creative expression);
- appreciate the role of traffic police, traffic lights;
- suggest ways to reduce smoke and noise.

Transport		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different kinds of transport in the surroundings. ➤ Different Modes of transport (land, air, water). ➤ Parts of vehicles. ➤ Occupations related to transport. ➤ Noise in the surrounding by vehicles. ➤ Traffic police and Traffic signals ➤ Emergency vehicles (Fire, Ambulance, Police, etc.) ➤ Misuse of Transport. 	<ul style="list-style-type: none"> ➤ Providing opportunities to share children's experiences about transport. ➤ Exploring children's ideas about modes of transport through brainstorming and discussion. ➤ Providing opportunities to children to collect pictures of vehicles, draw pictures of different modes of transport. ➤ Organising discussion on causes of noise and air (smoke) pollution, uses and misuse of transport ➤ Conducting group activities to identify, classify and differentiate different types of vehicles. ➤ Organising mock drill exercises/ role play of persons involved in this work ➤ Discussing eco-friendly technology being adopted. 	<ul style="list-style-type: none"> ➤ Children's experiences. ➤ Narratives created and compiled by children. ➤ Poems/ songs compiled on transport. ➤ Pictures/drawings of various kinds of vehicles. ➤ Mock drill of traffic rules ➤ Children's drawings on different kinds of vehicles. ➤ Project Work (traffic light)

Integration: Health and Physical Education, Languages

Life Skills: Concern for noise pollution in the surroundings

Theme 13: Communication

The theme 'Communication' is expected to provide information on means of communication in the surroundings and uses and misuses of communication in daily life.

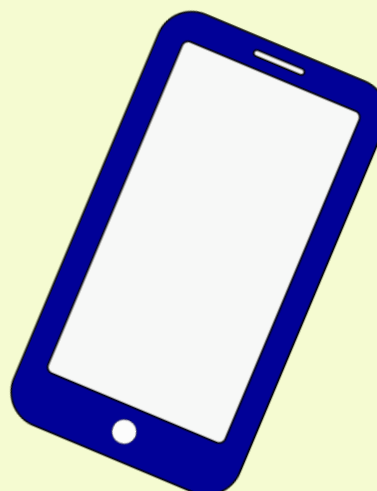
Learning Outcomes:

Children will be able to:

- enlist different ways of communication used in the family;
- discuss (with elders) the more common ways of communication used by the family;
- identify and discuss other ways of communication available in the surroundings;
- discuss uses of various ways of communication;
- identify uses and misuses of ICT Communication.

Communication		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Means of communication at home, in the neighbourhood, (Radio, TV, Newspaper). ➤ Different ways of communication. ➤ Uses, misuse of communication. ➤ Use of ICT in Communication (email, SMS, internet at the awareness level only). 	<ul style="list-style-type: none"> ➤ Providing opportunities to share the various ways of communication in the family, surroundings and describe them. ➤ Creating situations to develop poems/songs for developing divergent thinking/ creative expression on communication in children. ➤ Giving children opportunities to draw pictures. ➤ Organising group activities to discuss uses and misuses of communication. ➤ Doing puzzles (jig-saw). ➤ Providing opportunities to children to develop awareness on use of e-mails. Internet, telephone, letters, organising activities to use non-verbal ways of communication. 	<ul style="list-style-type: none"> ➤ Children's experiences. ➤ Narratives created by children. ➤ Poems/ songs compiled on communication. ➤ Pictures/drawings of various means of communication.

Integration: Languages, Computer Studies



Theme 14: The World around Me (Sun, Moon, Sky and Stars)

The theme 'World Around Me' is aimed to develop awareness about the sun, moon, stars and children's own ideas about these heavenly bodies. Simple information on these heavenly bodies would be provided in an interesting manner.

Learning Outcomes:

Children will be able to:

- ☑ identify the heavenly bodies seen in the morning and at night in the sky;
- ☑ discuss about the heavenly bodies (sun, moon and stars) in their own words;
- ☑ draw pictures of the sun, moon and stars and colour them;
- ☑ discuss and differentiate between sunny, cloudy, winter, summer and rainy days' experiences in their own words;
- ☑ describe and differentiate between summer, winter and rainy days' experiences.

The World around Me (Sun, Moon, Sky and Stars)

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Sky in the morning, afternoon and evening. ▷ Cloudy and sunny days. ▷ Sky in the night-stars, moon. ▷ Sun in the summer, winter, and rainy days. ▷ Weather in summer, winter and monsoons. 	<ul style="list-style-type: none"> ▷ Asking children to share their experiences of day/night time about the sky. ▷ Collecting poems/songs on heavenly bodies. ▷ Organising some activities such as dramatization (using masks) on sun, star, moon. ▷ Assigning projects to groups of children on the sky and heavenly bodies (collecting information and pictures with the support of elders). ▷ Organising group activities – collage, puppet, mask making. 	<ul style="list-style-type: none"> ▷ Stories and songs related to sun, moon, stars (collected or created). ▷ Structured conversation on each heavenly body ▷ Puppet play, masks (sun, moon and stars). ▷ Children's personal experiences.

Integration: Languages, Mathematics (Patterns)



Theme 1: About Me

The prime focus of this theme 'About Me' is not on focussing on the child's body parts, hobbies, habits, content coverage but on children expressing their own ideas and learning social skills. It also aims at developing the skills of observation, creative and verbal expression and communication. The theme would also develop self-awareness, cooperation and working together.

Learning Outcomes:

Children will be able to:

- ☑ describe personal details verbally as well as in simple written form about their likes and dislikes and respect other's likes/dislikes;
- ☑ describe functions of different body parts including the sense organs;
- ☑ draw and label external parts of the body, sense organs, self-portrait;
- ☑ enlist various activities done by different external organs;
- ☑ share personal hobbies and appreciate other's hobbies;
- ☑ make choices about their toys, dresses and other belongings;
- ☑ engage and take interest in small and large group activities;
- ☑ communicate (orally as well as written) one's point of view about personal things (dresses, toys, etc.);
- ☑ take interest and solve puzzles and problems related to various body parts, dresses, toys;
- ☑ demonstrate the use of extended vocabulary related to the theme;
- ☑ identify one's own and others' feelings and develop control over their emotions;
- ☑ engage and learn to cooperate in small and large group activities;
- ☑ appreciate and respect the differences among their peer group.

About Me

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit the concepts in class I learning. ➤ Describe self: likes/dislikes, hobbies (orally / written form) ➤ Draw pictures of a human body and self-portrait. ➤ Locate body parts in a picture. ➤ Solve shadow puzzles. ➤ Main functions of all parts of body (external), sense organs. ➤ Care of body parts and sense organs. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Providing opportunities to share and discuss personal experiences- likes, dislikes, hobbies, etc. ➤ To observe different parts of the body (self), pictures of body parts. ➤ Creating theme based environment (displaying in the class). ➤ Conducting circle time activities. ➤ Differentiating between functions of different parts of the body (activity work). ➤ Group activity on discussing and sharing amongst groups the differences amongst human beings and appreciating the same. ➤ Involving children in Group activities to identify and locate parts of the body on a Poster/ Chart, cut-out. 	<ul style="list-style-type: none"> ➤ Family/photos/family albums. ➤ Picture books. ➤ Story books. ➤ Charts/cards depicting body parts. ➤ Picture cards of various body parts and sense organs. ➤ Compilation of poems, puzzles including jigsaw. ➤ Children's drawings.

About Me

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">➤ Providing opportunities to solve riddles and puzzles, and sing songs based on the related theme.➤ Reflecting expressions through various activities i.e. shadows, puzzles, etc.➤ Preparing their name cards (each child) with logo, doing activities with cards.	

Integration: Health and Physical Education, Languages

Life Skills: Self-awareness, Self Esteem, Cooperation, Working together, Problem solving



Theme 2: Others in my World

The theme 'Others in my world' is continued as an extended learning from Class 1. It is expected to develop an understanding about others in the child's world, which include extended members of the family, neighbours, friends and also i pets. The theme is also expected to focus on issues and concepts related to the neighbourhood, indoor/outdoor games, significance of celebrating national days and other festivals. The prime focus of this theme is to understand the role of parents, friends, family, neighbours in the child's life. The theme would also provide opportunities to develop skills such as- empathy towards animals (pets), appreciate the cooperation and support neighbours and care and concern for the old, sick and differently abled.

Learning Outcomes:

Children will be able to:

- identify and speak about the relationship he/she has with extended family members;
- draw family tree of extended family members;
- discuss and narrate how festivals are celebrated at home/school and in the neighbourhood;
- appreciate the need for celebration of national days and other festivals/other important days;
- take care of pets and show empathy and compassion towards pets;
- show care and concern towards old, sick and differently abled;
- appreciate the cooperation and support of neighbours/ others;
- describe the role of family members and also express one's own role.

Others in my World		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit learning of key concepts of class I. ➤ Family Tree showing distant relations (extended family). ➤ Togetherness through sharing, fun, recreation, festivals with family and relatives. ➤ Celebration of important events/ days/ festivals. ➤ Care and concern for differently challenged/abled/old. ➤ Care of pets. ➤ Indoor and Outdoor Games with peer group. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Providing opportunities to share children experiences. ➤ Developing family tree with support of elders in a photo album/ scrapbook on extended family members. ➤ Opportunities for group discussion on various activities related to festivals/celebrations. ➤ Describing, sharing and various activities related to festivals (clothes, food, importance). ➤ Discussing the need for avoiding crackers/ loud music/ sounds and chemical colours. ➤ Involving children in Group work/ Project Work related to the theme, circle time activities. ➤ Sharing narratives/inspiring stories related to differently challenged group. ➤ Discussing in groups the need for games, listing different indoor and outdoor games, grouping and making and following rules. 	<ul style="list-style-type: none"> ➤ Family tree made by children. ➤ Photos related to various celebrations at home to school. ➤ Collection of dresses according to festivals they celebrate ➤ Drawings of children. ➤ Puzzles ➤ Collection of poems, songs, etc. ➤ Pictures and charts on different festivals, Republic and Independence Days and other local festivals/ events.

Integration: Languages, Arts Education

Life skills: Care and compassion for animals, Care and concern for the old, differently abled.

Theme 3: My Needs: Food

The theme 'Food' in Class II is expected to develop value for care and respect for food. The theme 'food' will also discuss the need of food for living beings and various issues and concerns related to food habits. The theme will also develop the core scientific skills of observation and discussion and life skills of self-awareness, respect for food and diversity in food, amongst children.

Learning Outcomes:

Children will be able to:

- ☑ identify and name various food items;
- ☑ discuss need for food for human body;
- ☑ collect/draw pictures of various kind of food items and name them;
- ☑ cite examples of food items we get from plants and animals;
- ☑ explain the need of various kind of foods required for body building, energy giving and body resistance (immunity of the body to diseases etc.);
- ☑ identify junk food and give reasons why it is not good for health;
- ☑ develop sensitivity and respect for food;
- ☑ develop respect for the diversity of food in the peer group, within families and different age groups.

My Needs: Food		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Food: Importance and need ➤ Major Food items: cereals, dals, fruits, vegetables, milk. ➤ Food items for body building, energy giving, for wear & tear of body, vitamins, water fibres. ➤ Healthy and junk food. ➤ Respect diversity of food habits (veg and non-veg cultures). ➤ Variations in food and reasons- different age group, families. 	<ul style="list-style-type: none"> ➤ Providing opportunities to share/discuss personal experiences of children. ➤ Conducting activities to identify different food items we get from plants and animals. ➤ Doing activities in groups to classify items based on their sources. ➤ Opportunities to draw pictures of various food items and name them in writing (component wise). ➤ Organising group discussions to discuss various issues related to food (junk food, non-vegetarian food, food diversity, etc.) ➤ Involving children in project work (classification of food items, plants, animals as source). ➤ Discussing with the whole class or in groups about ways to take care of food at home. ➤ Making picture book on food items – component wise. ➤ Organizing field trip to a farm, field to observe sources of food. 	<ul style="list-style-type: none"> ➤ Various kind of food items (actual). ➤ Pictures of food items. ➤ Narratives related to food habits. ➤ Poems/stories on food values/care. ➤ Children's drawing's. ➤ Worksheets.

Integration: Languages, Health and Physical Education

Life Skills: Self-awareness, Respect for diversity of food, Care and respect for food

Theme 4: My Needs: Water

The theme is aimed at developing awareness on many issues related to water as a need for living beings. The theme would focus on and discuss sources of water, ways for purification of water in the family/neighbourhood, causes of water pollution and concern about wastage of water. The core skills of observation, discussion and experimentation would be developed through this theme.

Learning Outcomes:

Children will be able to:

- identify and differentiate between natural and man-made water resources;
- discuss the need of water in daily life for plants and animals;
- draw and label pictures of water resources;
- cite examples of natural and man-made sources;
- discuss ways to keep the water sources clean;
- discuss and suggest ways to prevent the misuse of water;
- suggest and share various ways to purify drinking water at home/school;
- explain reasons of water pollution in the surroundings (awareness level only);
- appreciate the judicious use of water in school/at home.

My Needs: Water		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Sources of water: natural and man-made (rain, dam, lake, river, ponds, well, hand pump). ➤ Need for water for plants, animals and human beings. ➤ Clean water for drinking - ways of purification of water at home/colony (awareness level). ➤ Food items contain more quantity of water. ➤ Causes of water pollution (awareness level). ➤ Judicious use of water. ➤ Reuse of water at home/school/ in the surroundings. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Providing opportunities to share children's personal experiences. ➤ Discussing natural and man-made sources of water and citing examples of each. ➤ Doing activities/simple experiments (with the support of teachers) for ways of cleaning drinking water. ➤ Discussing in groups the causes of water pollution in the school/surroundings. ➤ Appreciating and discussing the ways to prevent misuse of water ➤ Discussing precautions to be taken in rainy weather (umbrella, raincoat....) and drinking water. ➤ Involving children in Project work i.e. how to save water- slogan writing drawings, messages. ➤ Organizing visits to places like ponds, lakes, rivers in the neighbourhood to observe the water resources. 	<ul style="list-style-type: none"> ➤ Visit to places to observe water resources (lake, river, pond, pictures/tanks with elders). ➤ Photos of man-made natural resources. ➤ Simple experiments/activities related to water purification. ➤ Project work on this theme. ➤ Children's drawings, pictures and charts made by the teacher on key concepts in the theme. ➤ Flash cards on sources of water.

Integration: Languages, Health and Physical Education

Life Skills: Judicious use of water

Theme 5: My Need- Shelter

The theme 'Shelter' is expected to develop an understanding of the variety seen in shelters /houses and reasons for the diversity as well as need for cleanliness of houses in the surroundings. The theme would also develop the core skills of creative expression, discussion and description..

Learning Outcomes:

Children will be able to:

- identify various types of houses and name them;
- cite examples of type of houses built in different parts of the world;
- respect diversity in houses and discuss reasons for diversity in houses;
- discuss need for cleanliness in houses;
- enlist kind of material used for making different types of houses;
- draw pictures and label parts of houses;
- make models of various kind of houses (under supervision and with support from elders);
- appreciate the need for decorating houses.

My Need- Shelter		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit Concepts of class 1. ➤ Houses in small and large cities. ➤ Reasons in diversity of Houses. ➤ Material used in various kind of houses. ➤ Need and care of house / household things. ➤ Cleanliness of the house (ways). ➤ Need for light and ventilation in the house. ➤ Decoration of Houses. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Showing and discussing visuals/pictures of different kind of houses in the world. ➤ Showing video- films/ documentaries/ sharing narratives related to variation in houses. ➤ Telling the story of the 'Three Little Pigs' and any other related to the theme. ➤ Showing various kind of material used for making houses-group work on this ➤ Asking to draw pictures of different kind of house, discriminating them. ➤ Involving children in model making (Hands-on-activity) exercises. ➤ Discussing ways / methods to keep the surrounding/s clean and to share the same with others. ➤ Involving children to participate in keeping the classroom clean, house decorations, model making; ➤ Involving children in worksheet activities to learn concepts. 	<ul style="list-style-type: none"> ➤ Models of various kind of houses. ➤ Charts prepared by the teacher. ➤ Videos and documentaries. ➤ Picture cards/PPTs/slide shows. ➤ Worksheets. ➤ Children's compilation work. ➤ Concrete material used for making house. ➤ Story/video (three little pigs). ➤ Models of a different houses. ➤ Material required for decorating houses.

Integration: Languages, Arts Education

Theme 6: My Need – Clothing

In Class II the theme 'Clothing' aims to develop an understanding on variation in dress material and their sources for human beings, in children. The theme would focus and discuss the different kinds of dresses, textures that are worn by children. The emphasis would also be on cleanliness and care of clothes. The core skills of observation, discussion will also be developed.

Learning Outcomes:

Children will be able to:

- ☑ discuss the need of clothes for living beings;
- ☑ identify various kind of materials used for making clothes;
- ☑ identify sources of natural and man-made fibres;
- ☑ give examples of natural and man-made fibres;
- ☑ differentiate among various cloth materials and give examples of each kind of material;
- ☑ draw pictures of various kind of dresses worn by males and females, made from these materials;
- ☑ give reasons why cotton clothes should be worn in summer and silk/woollen clothes in winters, rayon/ synthetic in the rainy season;
- ☑ suggest various ways to take care of cotton/silk other materials at home.

My Need – Clothing		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit concepts of class I. ➤ Variety of cloth material- cotton, silk, wool, canvas, rayon etc. and their use in different seasons. ➤ Sources of natural and man-made fibres, sources ➤ Dress material suited to different climatic conditions. ➤ Care of different types of clothes. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Organising group discussion on need for cloths. ➤ Conducting group activities to see various kind of cloth/ materials and identify them. ➤ Providing opportunities to draw pictures and label parts of clothes. ➤ Demonstrating how to use materials to maintain/take care of various kind of clothes. ➤ Assigning a project based on i.e. sources of fibres, kinds of clothes, uses of clothes in different seasons etc. ➤ Engaging in group activities related to various tasks i.e. listing of male, female clothes worn on various occasions/festivals. ➤ Origami activities (paper folding & making dresses). 	<ul style="list-style-type: none"> ➤ Various kinds of cloth/ material. ➤ Different types of clothes worn by males/females ➤ Pictures of various kind of clothes. ➤ Pictures of different materials used at home, made by fibres. ➤ Materials used for care of all kind of clothes. ➤ Visit to a textile industry (<i>if possible</i>) ➤ Children's drawings. ➤ Project Work report. ➤ Origami work.

Integration: Languages, Arts Education

Theme 7: My Need - Air

The theme 'Air' is aims at focusing on and discussing. simple observable properties of air, how to keep the air in the surroundings clean and fresh. Through simple activities the skills of observation, discussion and experimentation would be also be developed.

Learning Outcomes:

Children will be able to:

- observe some properties of air;
- demonstrate (with the support of elders) that air has weight, occupies space, expands
- identify and discuss various causes of air pollution;
- suggest some ways to deal with air pollution from smoke/ fumes;
- name some common diseases, spread through air;
- discuss various ways to prevent these diseases;
- demonstrate simple exercises, *asanas*/ deep breathing for use of air for healthy living.

My Need - Air		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit concepts of Class I. ➤ Simple properties of air: air occupy space, has weight, expands when we heat, feel it, etc. ➤ Causes of air pollution ➤ Ways to reduce air pollutions in the surroundings ➤ Air borne diseases and their prevention (some common diseases) 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Providing opportunities to share children's personal experiences related to air. ➤ Showing experiments, organising group activities to demonstrate properties of air. ➤ Discussing various reasons of air pollution and citing examples of each factor. ➤ Making/designing posters on prevention of air pollution. ➤ Involving children to write slogan s/ messages to prevent air pollution. ➤ Assigning Project Work – information on Air borne diseases and their prevention. ➤ Developing creative expression by engaging them in compilation of songs, poems, writing own songs, sharing with peers. 	<ul style="list-style-type: none"> ➤ Pictures depicting air related activities. ➤ Material for simple experiments for properties of air. ➤ Photographs depicting air borne diseases. ➤ e- material on air borne diseases. ➤ Slogan / Messages on prevention of air borne diseases. ➤ Slogan / Messages to reduce air pollution.

Integration: Languages, Health and Physical Education

Theme 8: Keeping oneself Clean, Safe and Healthy

The theme is expected to provide information and also develop an awareness on the issues and concerns related to cleanliness and health. The theme would focus on and discuss, how to keep oneself healthy, recreational ways at home/neighbourhood, safety at home and public places and cleanliness related to self and of the surroundings.

Learning Outcomes:

Children will be able to:

- ☑ identify various reasons of filth/garbage in the surroundings;
- ☑ suggest some ways how to keep the surroundings clean (use of dustbin and segregation of garbage);
- ☑ discuss various ways of garbage disposal at home/in the surroundings;
- ☑ discuss various benefits of physical activities like yoga, exercises, games;
- ☑ emphasis and importance of outdoor games/activities;
- ☑ enjoy and get involved in recreational activities.

Keeping oneself Clean, Safe and Healthy		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revision of concepts/learning from of class I. ➤ Cleanliness in the surroundings and at the public places. ➤ Use of dustbin at public places. ➤ Ways of garbage disposal at home and in surroundings. ➤ Healthy body and mind: rest, exercises, yoga, play, outdoor/indoor games. ➤ Safety at home/ surroundings. ➤ Care of body. ➤ Good/bad touch. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Organizing brain storming in the class to discuss causes of unclean surroundings. ➤ Inculcating the habit to encourage the use of dustbin (bio-degradable and non-bio-degradable garbage) at home (teaching children to segregate garbage that needs to be disposed off). ➤ Narrating a story on effects of clean/dirty surroundings ➤ Organising discussions for the need of exercise and play (indoor and outdoor games). ➤ Involving children in recreational activities at home/school. ➤ Demonstrating and adopting a variety of motor development activities to help children learn the right posture, flexibility, coordination, etc. ➤ Sharing narratives/ puppet shows/ personal experiences related to good and bad touch, followed by discussions. ➤ Organising group work to discuss various kinds of tools at home and how to keep one-self safe from them. ➤ Providing opportunities for creative expression on the theme – collecting/ writing poems, stories, songs. ➤ Discussing clean and dirty situation, garbage disposal. ➤ Explaining proverb- “Cleanliness is next to Godliness” 	<ul style="list-style-type: none"> ➤ Poems/songs/ jingles of fitness ➤ Games and recreational activities. ➤ Narratives related to good/bad touch. ➤ Collection of songs, poems and stories on healthy living. ➤ Puppets.

Integration: Languages, Health and Physical Education

Theme 9: Places in the Neighbourhood

The theme 'Places in the neighbourhood' is aimed at providing information and discussing various places in the neighbourhood. The theme would also throw light on up-keep of public places in the community. People involved in different professions and the importance of those professions would also be discussed. Children would learn to appreciate and respect the role of different professions in our day to day life.

Learning Outcomes:

Children will be able to:

- ✓ discuss and give reasons for need of the public places in the neighbourhood;
- ✓ identify various places in the neighbourhood and name them;
- ✓ explain various functions of each places in daily life;
- ✓ discuss need for emergency services in the neighbourhood;
- ✓ appreciate the services/help provided by various people who are involved in different professions;
- ✓ appreciate the need of recreational/other important services available in the neighbourhood.

Places in the Neighbourhood

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Revisit previous key concepts of Class I. ▷ Need for public places in the locality. ▷ People who help us: postman, courier service, cooking gas service, mason. ▷ Various emergencies and relief – police station, fire brigade. ▷ Recreational places in the neighbourhood. 	<ul style="list-style-type: none"> ▷ Building on previous learning. ▷ Encouraging children to draw a map of the different places in their locality. ▷ Organizing activity with children where they dress as community helpers and share information of the place where they work and its importance in the local neighbourhood. ▷ Organizing visit to some places to observe the role of various people who involved in different occupation. ▷ Organising role plays. 	<ul style="list-style-type: none"> ▷ Different places that play an important role in daily life. ▷ Visit to local market, hospital/police station etc., if possible or pictures to be shown. ▷ Local market, police station, hospital, fire station, etc. ▷ People from different professions such as- doctor, policeman/woman, conductor, teacher, carpenter, postman etc.

Integration: Languages, Health and Physical Education

Life Skills: Dignity of labour

Note: This theme content needs to be selected as per socio-cultural environment of children, occupations may be included.



Theme 10: Plants

The theme 'Plants' is expected to develop an understanding about different types of plants, variation and uses of plants for human beings. Through this theme the skills of observation, discrimination, appreciation and care and concern for plants will be developed. The theme would also develop sensitivity towards care and protection of plants and the environment.

Learning Outcomes:

Children will be able to:

- identify and name the different parts of the plant and discuss their functions;
- draw main parts of a plant and label them;
- appreciate the uses of various parts of a plant;
- appreciate tree plantation and use of medicinal plants in daily life;
- distinguish between different kind of plants based on their habitat i.e., in water, on land;
- discuss reasons of modification of different parts of some plants.

Plants		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Rebuild on previous learning. (Class I Concepts). ▷ Plants on land, water, climbers. (Examples with pictures and their description) ▷ Parts of plants: root. Stem. Leaf, flower, fruit, seed. (pictures and their description) ▷ Plant products – use at home. ▷ Plant modification: underground, stems, roots. ▷ Care and concern for plants – plantation, friendship with plants. 	<ul style="list-style-type: none"> ▷ Building on previous learning. ▷ Children will be helped to identify and name some of the plants and trees in their surroundings. ▷ Drawing and labelling parts of the plants in activity work. ▷ Brief explanation of photosynthesis. ▷ Providing or asking children to get seeds/ saplings to look after them at home or in school if possible. ▷ Involving children in tree plantation in the school locality, thereby developing a friendship with plants and taking care of them. ▷ Discussing uses of medicinal plants. ▷ Role play of children about grandmother's remedies. ▷ Providing opportunities to observe <i>tulsi</i>, neem leaf, turmeric (<i>haldi</i>), clove, ginger, etc. in natural form and discussing their benefits and uses. 	<ul style="list-style-type: none"> ▷ Photographs of trees and plants. ▷ Video films and pictures. ▷ Animation (movie) on plants and modifications. ▷ Medicinal plants (<i>tulsi</i> leaf, clove, ginger).

Integration: Languages

Life Skills: Care and protection Of plants and environment

Theme 11: Animals

The theme 'Animals' is expected to develop awareness, understanding on concepts related to animals. It is also aimed at developing within children a concern, care and compassion for animals. The theme would also help to develop a number of skills such as observation, classification, care and concern for animals and appreciation of beauty.

Learning Outcomes:

Children will be able to:

- discuss some observable characteristics of animals;
- discuss characteristics/features of animals based on their variations;
- draw pictures of various animals and label their parts;
- differentiate and compare various animal habitats;
- show sensitivity and compassion towards animals;
- narrate the process of the life cycle of a butterfly in their own words.

Animals		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Revision of class 1 concepts. ▷ Body parts of pet animals. ▷ Life cycle of butterfly. ▷ Care and compassion for pets and other animals. ▷ Animal characteristics: move, grow, eat food. ▷ Animal houses/habitats- live underground, in the trees, near water, under water. ▷ Need of shelter for animals. ▷ Relationship of human beings with animals. 	<ul style="list-style-type: none"> ▷ Organising theme based class on environment and conducting activities. ▷ Encouraging children to show compassion towards animals by writing stories, poems, songs. through stories, poems, songs. ▷ Organizing a pet show in school to encourage children to reflect on what they have observed. ▷ Sorting activity in small groups. ▷ Classify animals on the basis of their habits. ▷ Classify on the basis of characteristics of animals. ▷ Classify animals on the basis of food habits. ▷ Organising a visit to poultry farm/bird sanctuary/zoo 	<ul style="list-style-type: none"> ▷ Puzzles (birds/animals). ▷ Visit to ▷ Videos showing compassion to street animals. ▷ Flash cards on animals ▷ Picture cards on life cycle of butterfly.

Integration: Languages

Note: This theme can be continued in a project mode.

Theme 12: Transport

The theme, 'Transport' is aimed to provide information on modes of transport, traffic rules and need for emergency vehicles. It would also generate an awareness on various issues related to transport. A number of skills such as exploration, explanation and clarification skills would be developed from this theme. The theme would also discuss ways to save petrol/diesel.

Learning Outcomes:

Children will be able to:

- ✔ discuss uses of transport in the surroundings;
- ✔ identify various kind of transport;
- ✔ compare traffic seen in cities/villages;
- ✔ give reasons of traffic jam and suggest ways to reduce it;
- ✔ discuss cause of air and noise pollution;
- ✔ stick/draw pictures of various kind of vehicles.

Transport		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Revision work of Class 1 concepts ▷ Need for various kind of transport: some examples, visuals. ▷ Vehicles driven by use of petrol, diesel, CNG, electricity. ▷ Various modes of transport used in big cities (metro, local train, cab bus, auto rickshaw) ▷ Causes of traffic jams, pollution (air, noise) ▷ Ways of checking noise pollution and its effect ▷ Ways to save petrol/diesel. 	<ul style="list-style-type: none"> ▷ Providing opportunities to observe and discuss various kinds of transport used in the neighbourhood. ▷ Organising a visit to public places to observe different modes of transport. ▷ Discussing the importance of wheelchairs and ramps in schools and in public places. ▷ Focusing on activities of walking, cycling at home, travelling in the bus or metro and sharing of experiences. ▷ Organising discussions in the class on how to minimize noise pollution. ▷ Assigning projects individually or in groups. ▷ Facilitating Model making on different modes of transport. 	<ul style="list-style-type: none"> ▷ Pictures 2D Model-Paint a city/village ▷ Plastic toy models of transport. ▷ Models of various modes of Transport. ▷ Class discussions. ▷ e- material. ▷ Visit to a Railway Station/ Airport

Integration: Languages, Health and Physical Education

Life Skills: Sensitivity towards judicious use of petrol



Theme 13: Communication

The theme 'Communication' provides information on various means of communication in children's surroundings. The positive and negative aspects are highlighted to make children aware of the various modes of communication in daily life activities.

Learning Outcomes:

Children will be able to:

- discuss the need and importance of communication in day to day life;
- identify and list out various modes of communication;
- discuss the positive and negative use of some modes of communication;
- identify different ways of communication used in big / metro cities;
- demonstrate the use of some modes of communication.

Communication		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Need for communication. ▷ Ways of communication available in cities/public places. ▷ Use of ICT (email, SMS, internet) ▷ Communication for recreation. ▷ Ways to check misuse of communication devices. 	<ul style="list-style-type: none"> ▷ Providing opportunities to listen to children's personal experiences. ▷ Organizing discussions on uses and misuses of different ways of communication. ▷ Providing opportunities to observe and solve modes of communication. ▷ Asking children to explore ways of communication commonly used in big cities. 	<ul style="list-style-type: none"> ▷ Children's own experiences. ▷ Interaction between teacher and children on communication. ▷ Various modes of communication. ▷ Demonstrate use of communication in daily life. ▷ Discussion on letters, computer, laptop, mobiles, e-mails.

Integration: Languages, Computer Studies



Theme 14: The World Around Me: Sun, Moon, Sky and Stars

The theme 'The World Around Me' is aimed at developing an awareness about the sky and the sun, moon, stars amongst children and their own ideas about these heavenly bodies. Simple information on these heavenly bodies would be provided in an interesting manner.

Learning Outcomes:

Children will be able to:

- ☑ identify the different heavenly bodies seen in day and at night;
- ☑ distinguish between different heavenly bodies based on some observable features;
- ☑ describe various heavenly bodies seen in the day/afternoon and at night;
- ☑ draw pictures of the heavenly bodies;
- ☑ create / write/collect poems and songs on this theme;
- ☑ collect pictures/information on this theme;
- ☑ read symbolic maps/route maps.

The World around Me: Sun, Moon, Sky and Stars

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ (Revision of class 1 concepts). ➤ Changes seen in sky in day, afternoon, night. ➤ Sky in rainy days. ➤ Various seasons and sky. ➤ Symbolic and route map. ➤ Solar system and other heavenly bodies. ➤ Day & Night formation (through picture only). 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Exploring children's ideas about the sun, moon, stars, day (morning, afternoon and night). ➤ Facilitating observation of the sky in the day and at night by children and discussing the differences. ➤ Providing opportunities to draw pictures of a rainy/sunny/cloudy day and discussing the same with peers. ➤ Showing films, e-material on heavenly bodies and discussing it with the children. ➤ Planetarium visit. ➤ Providing opportunities to draw pictures of the heavenly bodies. ➤ Assigning project work (group/individual), ➤ Making models of the heavenly bodies. ➤ Collecting pictures of the heavenly bodies. 	<ul style="list-style-type: none"> ➤ Sky observation at night and day time ➤ Pictures/photos of night and day time of the sky. ➤ Visit to the Planetarium. ➤ Visual discrimination cards. ➤ Stories/poems/narratives. ➤ Worksheets/activity sheets. ➤ Children's drawings. ➤ Models made by children. ➤ Film on heavenly bodies.

Integration: Languages, Arts Education, Mathematics (Patterns)

Theme 15: Time, Space, Direction

This theme aims to create an awareness regarding the concept of time, space and direction. This will enable children to talk about time in terms of day and night as well as today, tomorrow etc.

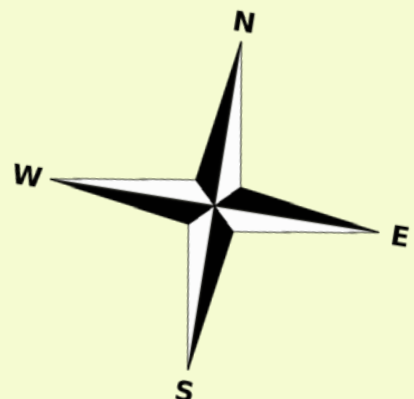
Learning Outcomes:

Children will be able to:

- ☑ distinguish the different times in the one full day (24 hours) - morning, afternoon, evening, night;
- ☑ discuss and list out the activities done in the morning, afternoon, evening and night;
- ☑ talk about activities done today and yesterday and to be done tomorrow;
- ☑ distinguish between left/right, above/below, near/far; up/down, etc.
- ☑ give and follow simple directions
- ☑ discriminate between location of various objects (on, in, below, above);
- ☑ locate objects and places in the surroundings;
- ☑ identify directions with the support of elders.

Time, Space, Direction		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Time: Concept of day, week, month, and year. Yesterday, tomorrow and today. ➤ Direction: Left/right, above/below, four directions, near/far. ➤ Space: Location of places in the surroundings. ➤ Location of objects. (on, in, below, above) 	<ul style="list-style-type: none"> ➤ Asking children to enlist activities done during various points of time in the day/at night. ➤ Facilitating making of puzzles and /or poems on time, direction and discussing the same in the class. ➤ Facilitating making of a scrap book by children individually on the activities done in the morning, afternoon, evening, night. ➤ Involving children in drawing pictures of maps. ➤ Involving children to locate places on the picture map. ➤ Encouraging children to create songs and rhymes on the theme. 	<ul style="list-style-type: none"> ➤ Children's own experiences related to morning, afternoon, evening and night time. ➤ Puzzles and riddles. ➤ Poems and songs. ➤ Time concept cards. ➤ Some visuals depicting places and things (location of place, on, in, etc.) ➤ Picture maps.

Integration: Languages, Arts Education



SCIENCE

Science

(III to V)



At the primary level, Science as a core subject has been introduced from Class III onwards. While at the Preschool level and in Classes I & II, Environmental Studies (EVS) has been identified as a core curricular area and the concerns of Science (natural environment) and Social Studies (social environment) have been addressed through the EVS learning, in the Science curriculum for Classes III-V, greater emphasis has been laid on reduction of conceptual gaps so that a smooth transition can be established. In order to achieve this, the curriculum has been designed so as to create an interest for the subject among children without burdening them with too much factual information.

The Science curriculum has been presented as a live and growing body of knowledge rather than a finished product of the concepts. Emphasis has been given to the process of learning. The focus of the Class III Science curriculum is on developing the awareness level as related to Science. More emphasis is placed on development of skills and inculcation of healthy habits for protection of the environment. In Classes IV and V, the emphasis is much more on experimentation, understanding Science concepts, processes and natural phenomenon along with development of scientific temper and curiosity towards scientific activities.

Some of the considerations which have been kept in mind while developing the Science curriculum for Classes III to V, are:

- ☛ **Relating Science learning to the daily life experiences of children:** Emphasis has been laid on learning through 'hands-on-activities' by using locally available materials and situations as learning resources. The various themes have been dealt with in a manner so as to encourage children to explore and use varied resources so that they can establish a relationship between the content learnt in class and its relevance in and to their daily life.
- ☛ **Thematic Approach:** The curriculum has been presented thematically, with the focus being on how children experience the content of Science in their daily lives rather than covering stand-alone topics. Thus, the suggested transactional processes use the children's own experiences, ideas/points of views as learning resources.
- ☛ **Focus on Skill/ Process development:** The focus of the syllabus is on skill/process development rather than content coverage. The development of concept /content of Science has been encouraged through the process of skill development. The curriculum encourages development of scientific temper, curiosity, analytical and critical thinking and synthesis of ideas and concepts.

- ☛ **Opportunities for knowledge construction:** The curriculum provides opportunities to children to collect, organise and reflect on the information of the Science content, so as to make science learning more meaningful.
- ☛ **Infusion of Environmental issues:** The curriculum has been presented as a General Science in which environment is the focus area. Environment related issues have been presented in an infused manner in the curriculum.

The Core concepts of Science for Classes III-V are dealt with as under:



Theme 1: Living and Non-Living things

The objective of this theme is to help children identify living and non-living things in the surroundings and also develop an understanding of the concepts related to living and non-living things based on observable features. The emphasis is more on development of various processes/ skills such as observation, discrimination, and classification, etc.

Learning Outcomes:

Children will be able to:

- ☑ enlist living and non-living things seen in the surroundings;
- ☑ identify characteristics of living and non-living based on observable features and their classification;
- ☑ cite examples of living/non-living based on observation;
- ☑ draw pictures of living/non-living and name them;
- ☑ describe features of living/non-living in their own words;
- ☑ develop sensitivity towards plants, animals and the environment.

Living and Non-Living things		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Living and Non-living things in the surroundings:</p> <ul style="list-style-type: none"> ☛ Examples of living and non-living. ☛ Features of living and non-living. ☛ Difference between living and non-living 	<ul style="list-style-type: none"> ➤ Revisiting Class II concepts. ➤ Building on previous learning. ➤ Providing opportunities to children to share personal experiences. ➤ Organizing visits to the school garden/nearby areas to observe some living and non-living things. ➤ Organizing activities related to identifying objects and things and classifying them according to living/non-living. ➤ Encouraging children to describe observable features of living beings in their own words. ➤ Conducting group work (on chart to differentiate between living (visuals) and non-living things. ➤ Drawing pictures of objects/living beings and naming them. 	<ul style="list-style-type: none"> ➤ Pictures / photos of living and non-living. ➤ Boards to display pictures of living and living/non-living things. ➤ Drawings made by the children and the teacher. ➤ Worksheets on new concepts.

Life skills: Inculcation of culture for working together, Care and compassion towards animals, sensitivity towards plants, animals and the environment.

Theme 2: Human Body

The prime focus of this theme is to acquaint children with the location, structure, and function of the different internal organs in the human body. Emphasis has been laid on understanding the process of respiration through a working model (in non-technical language). The underlying idea is to inculcate healthy habits related to the breathing process and develop core skills of science learning i.e. observation, explanation, discussion, etc.

Learning Outcomes:

Children will be able to:

- indicate and identify various internal organs of the human body in the picture/diagram/model;
- locate the position of internal organs on the cut out/model of human body;
- draw pictures of major internal organs and label them;
- draw and label the parts of respiratory system (organs);
- discuss the need for breathing process for human beings;
- explain (in their own words) the process of breathing;
- discuss causes and problems of air pollution for living beings in daily life;
- suggest ways to reduce air pollution in the surroundings.

Human Body		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Internal organs of the Human body: general structure, location and functions of the different internal organs. ➤ Respiratory system: Parts /organs of the respiratory system, (nose, windpipe, lungs) and their functions, process (inhale & exhale) of breathing. ➤ Diagram and labelling of organs of the respiratory system ➤ Simple process of deep breathing. ➤ Working model of the respiratory system. ➤ Air Pollution - Causes and problems *. 	<ul style="list-style-type: none"> ➤ Revisiting previous concepts learnt in Class II. Building on previous learning by initiating discussion on the learning of Class II concepts. ➤ Providing opportunities to children to share their personal experiences. ➤ Drawing pictures of internal organs on charts and labelling them with the support of teacher/ elders / peer group. ➤ Explaining the process of breathing by using a model. ➤ Demonstrating the process of inhalation/exhalation in class. Asking children to follow. ➤ Initiating a discussion (in small groups) on the need for proper breathing process. ➤ Developing models of the respiratory system in groups. ➤ Discussing in small group problems and causes of air pollution and sharing the information in the Class (only awareness level). ➤ Conducting activities with cards. 	<ul style="list-style-type: none"> ➤ Charts/pictures of various internal organs of human body. ➤ Picture cards of different internal organs. ➤ Cut outs of the human body depicting position of internal organs. ➤ Working model of the respiratory system. ➤ Improvisation of model of respiratory system (with the support of elders). ➤ Worksheets/ assignments.

Integration: Languages, Health and Physical Education, Social Studies (The Environment)

Note: *Air Pollution - Causes, effects and ways to prevent air pollution have been discussed in Classes IV in Social Studies.

Theme 3: Animals: Birds

This theme is aimed at providing information and developing awareness regarding birds seen in the surroundings/ environment. It is also expected to develop an understanding of the specific features of birds (which make them fly), body parts, food habits and where they live. Development of core skills such as, observation, discrimination, identification, by using content identified under the theme is also an inherent part of this theme.

Learning Outcomes:

Children will be able to:

- ☑ recognize and name common birds seen in the surroundings;
- ☑ draw pictures of common birds and label their body parts;
- ☑ discuss and describe food habits of some common birds (in their own words);
- ☑ recognize nests/ pictures of some birds;
- ☑ identify nests of interesting birds and draw them;
- ☑ make model of nests using locally available material;
- ☑ develop care and compassion/empathy towards animals / birds.

Animals: Birds		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Animals: Birds Common birds*, local / Indian. ➤ Body parts – beaks, feet, feathers. ➤ How birds fly. ➤ Food habits. ➤ Nests of some interesting birds (weaver, tailor, woodpecker birds). ➤ Some other interesting facts about birds (eggs, sounds, habitat). ➤ Bird bath and care for animals. 	<ul style="list-style-type: none"> ➤ Organizing visits to the park or garden to observe birds and identify them. ➤ Organizing activities with children individually and in groups: <ul style="list-style-type: none"> ☛ To group bird's cards based on their beaks, feathers, claws. ☛ Making diagrams of some common birds and labelling their parts. ➤ Providing opportunities and encouraging children to find additional facts on birds (internet) and share the same in the class. ➤ Group discussion on how and why birds fly. ➤ Sharing experiences narratives/ stories to inculcate values for care and compassion towards animals, ➤ Creating situations and providing live examples. ➤ Providing opportunities to children to develop/solve puzzles, riddles, poems on birds, to develop creative expression. 	<ul style="list-style-type: none"> ➤ Pictures of various birds. ➤ Nests of some birds. ➤ Scrap book on pictures of birds. ➤ Documentary films. ➤ e-material on birds' life. ➤ Children's drawings and paintings.

Integration: Languages

Life skills: Sensitivity towards environment and birds

Note: *The idea of including common birds under this theme is to provide teachers with the flexibility to select them as per the children's contexts.*

Theme 4: Animals: Common Insects

This theme aims at providing interesting facts related to some common insects observed in the surroundings in order to develop an understanding and also sensitivity in children towards animals and the environment. The theme is also expected to develop the skills of observation, discussion, care and concern for other living beings and the environment.

Learning Outcomes:

Children will be able to:

- name some common insects seen in the surroundings;
- identify some insects seen at home;
- draw pictures and label main parts of insects;
- discuss harmful effects of some insects (termites, mosquitoes, housefly, etc.) on humans;
- suggest remedies to prevent harmful effects of insects on human beings;
- discuss some social insects (butterfly, honeybee) which are useful for human beings;
- explain the life cycle of honey bee in their own words;
- develop compassion for animals;
- develop a sensitivity towards the environment and living beings.

Animals: Common Insects		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Common Insects*: ants, beetles, bees, flies, mosquitoes, butterfly. ➤ Body parts of an insect: head, thorax, abdomen, legs, wings. ➤ Life cycle of a butterfly. ➤ Some social insects (ants, bees), at home and in the environment. ➤ Harmful effects of insects. (mosquitoes, termites, lice, cockroaches, houseflies, bedbugs). ➤ Remedies. 	<ul style="list-style-type: none"> ➤ Organizing group discussions to share children's personal experiences. ➤ Providing material, visual, e-content/ film to children and sharing the same to construct new knowledge and know more facts about insects. ➤ Assigning project work both individually and in groups on this theme. ➤ Providing opportunities to find out (internet) the life cycle of ants, bees and discuss the same in class. ➤ Collecting information/ stories/ poems on the life of ants/ bees as social animals. ➤ Narrating/ sharing experiences of harmful effects of some insects experienced at home. ➤ Encouraging children to suggest remedies to overcome harmful effects at home/ in the surroundings. ➤ Discussing interesting facts regarding insects ➤ Developing a scrapbook 	<ul style="list-style-type: none"> ➤ Photos/ charts/cards on different kinds of insects. ➤ Picture of different parts of common insects (mosquito, house fly). ➤ Scrap book on insects. ➤ e-material. ➤ Picture / charts on the life cycle of honey bee, butterfly. ➤ Children's drawings ➤ Development of scrapbook.

Integration: Languages

Life Skill: Sensitivity towards animals and the environment.

***Note:** *The idea of putting common insects under the theme is to provide freedom to the teacher to select them as per the children's contexts.*

Theme 5: Plants in the Surroundings

The theme 'Plants in the Surroundings' is aimed at developing an awareness and understanding in children about various parts of plants including seeds. In addition, it aims to develop sensitivity towards plants and environment and other skills such as, observation, experimentation and discussion.

Learning Outcomes:

Children will be able to:

- ✓ appreciate the beauty of plants (flowers, leaves);
- ✓ identify different parts and sub-parts of a plant and label them;
- ✓ explain functions of each part of a plant in their own words;
- ✓ demonstrate creative expression (leaf, floral design);
- ✓ locate position of the seed in the plant;
- ✓ draw picture of a seed and label the main parts;
- ✓ distinguish different kinds of seeds (gram, green pea) seen at home/in the kitchen;
- ✓ develop sensitivity towards plants and the environment;
- ✓ perform simple experiments to demonstrate the process of germination (with the help of elders).

Plants in the Surroundings		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Parts of Plants. ➤ Structure and function of each part of the plant (root, stem, leaf, flower and fruit). ➤ Structure of a seed. ➤ Kinds of seeds. ➤ Process of germination, need of water, air, warmth for germination. ➤ Care of plants. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to observe parts and sub-parts of plants and draw them. ➤ Discussing functions of different parts of plants. ➤ Providing opportunities to children to share their personal experiences related to seed germination/ formation of sprouts in different seasons. ➤ Setting up experiments on seed germination with the involvement of the teacher/elders. ➤ Providing hands on experiences (different types of seeds) to children to do activities on seed germination individually and in groups and recording their observations and inferences in their own words in a table. ➤ Collecting poems/ stories related to care of plants. ➤ Doing activities related to creative expression by using leaves and flowers. 	<ul style="list-style-type: none"> ➤ Different types of plants ➤ Children's drawings. ➤ Narratives related to care of plants and environment. ➤ Various kinds of seeds observation of (soaked/ unsoaked). ➤ Simple experiment to demonstrate seed germination. ➤ Pictures/charts showing various kinds of plants.

Integration: Languages

Life skills: Care and sensitivity towards plants and environment.

Theme 6: Food we get from Plants

The theme 'Food we get from Plants' is aimed at familiarising children with the various uses of different parts of plants as an environmental resource. The theme will also help develop the skills of observation, experimentation, care and sensitivity towards plants, and also healthy habits related to food.

Learning Outcomes:

Children will be able to:

- identify plants as herbs, shrubs, trees and climbers and give examples of each;
- draw pictures of each kind of plant (herbs, shrubs, climbers, trees);
- draw pictures of some fruits and colour them;
- enlist leaves, seeds, fruits, flowers and roots of plants used in and as food items;
- name plants used for medicinal purposes (oil, spices);
- enlist some medicinal seeds, leaves, buds etc., and name the plants;
- develop sensitivity towards plants;
- show respect and value for food and avoid wastage of food.

Food We get from Plants		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Plants as herbs, shrubs, trees and climbers and their examples. ➤ Parts of plants used as food items: leaves, roots, fruits, seeds, flowers. ➤ Plant products such as oil, spices, pulses and other edible things (medicinal leaves, seeds). 	<ul style="list-style-type: none"> ➤ Citing sharing and discussing with children examples of different kinds of plants. ➤ Encouraging children to draw pictures of flowers, fruits and other parts of plants used as food. ➤ Organising small group discussions on uses of parts of plants. ➤ Providing materials to observe kinds of plants (herbs, shrubs, climbers) and drawing them. ➤ Enlisting various parts of plants used for medicinal purposes. ➤ Organising group activities to classify plant products as pulses, grains, leaves, fruits, seeds, roots and identify the plants. ➤ Organising activities by involving children to develop creative expression e.g. thumb, finger impression to create flowers, leaves, making designs using colours. ➤ Visiting to an open area (garden) to observe various kinds of plants 	<ul style="list-style-type: none"> ➤ Pictures/ photos of different kinds of fruits/ flowers. ➤ Actual flowers and fruits of various kind. ➤ A herbarium. ➤ Pictures of herbs, shrubs, trees, climbers. ➤ Plant products as edible and non-edible parts. ➤ Narratives on care of plants.

Integration: Languages, Social Studies (The Environment)

Theme 7: Forms of Matter: Solids, Liquids and Gases

The theme 'Forms of Matter' is expected to develop an understanding of different forms of matter found in day to day life along with their examples. The theme would also provide an awareness about observable properties of different forms of matter. The focus of the theme is to develop concept formation related to different forms of matter, to enable children link the forms with their daily life. It also aims at developing skills of observation, classification and experimentation.

Learning Outcomes:

Children will be able to:

- identify natural and man-made things in the surroundings;
- distinguish and classify solids, liquids and gases based on their observable properties;
- cite an example of each form based on observation in the surroundings;
- draw pictures of experiments that show the properties of each form;
- explain uses of solids/ liquids/ gases in daily life.

Forms of Matter: Solids, Liquids and Gases		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Forms of Matter: solids liquids and gases. ➤ Examples of solids and their properties. ➤ Examples of liquids and their properties. ➤ Examples of gases and their properties. ➤ Uses of matter. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their personal experiences by asking them to enlist solids, liquids and gases seen at home. ➤ Demonstrating the properties (through simple experiments) of solid, liquid and gases (with the support of teachers). ➤ Conducting activities/ experiments to observe forms of matter (e.g. ice. water and vapour) ➤ Conducting discussion about the distinction between solids, liquids and gases based on their observable physical properties. ➤ Sharing narratives, materials/ e-material on different forms of water. ➤ Assigning individual and/or group projects on how to save water (making slogans, writing success stories, etc.). ➤ Discussing various kinds of materials in different forms (solid, liquid, gas) available in school/ home/ surroundings 	<ul style="list-style-type: none"> ➤ Pictures, charts and materials on solids, liquids and gases. ➤ Experiments that depict simple properties and forms of matter ➤ Project work. ➤ E- material / visuals on the concerned theme.

Note: Focus of the theme should be on observation and simple experimentation.

Theme 8: Some Properties of Water

The theme 'Properties of Water' is aimed at providing an understanding of some properties of water which can be easily observed by children through activities. Children would also get an understanding of the conditions that affect making of a solution. The theme further aims to discuss 'what floats and what sinks' in water, in a fun and interesting manner.

Learning Outcomes:

Children will be able to:

- identify different properties of water (based on observations);
- classify materials based on solubility in water (soluble and not soluble in water);
- demonstrate (through experiments) properties of some materials that dissolve in water and some that do not;
- classify objects that float/sink in water (experimentally);
- conduct simple experiments on their own to make simple solutions using common substances (salt, sugar).

Some Properties of Water		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Revision of Class II learning ➤ Physical Properties of water (occupy space, take shape of the container) ➤ Water and water solutions. ➤ Conditions that affect making of a solution (stirring, warm water). ➤ Common soluble and insoluble substances in water (simple experiments). ➤ Objects that float, sink in water (through simple activities).	➤ Revisiting concepts learnt in Class II. ➤ Conducting activities/ experiments (in group) to demonstrate some physical properties of water (occupy space, take shape of the container). ➤ Conducting activities to demonstrate objects that sink/float. ➤ Demonstrating: <ul style="list-style-type: none"> ☛ <i>how to make solution of common substances.</i> ☛ <i>soluble and insoluble substances in water and with examples.</i> ☛ <i>various conditions that affect making solution of water (warm / cold water, stirring / not stirring)</i> 	➤ Solution of water (salt, sugar). ➤ Collection of soluble and non-soluble substances. ➤ Water, objects that sink and float. ➤ Containers of different sizes.

Note: This theme should be covered in class as a fun and play activity. The focus is not on drawing inferences.

Theme 9: Water as a Resource

This theme is aimed at creating awareness regarding different forms of water and their applications in day-to-day life. The theme is also expected to throw some light on the process of evaporation and condensation in simple terms. Causes of water impurities and ways to purify water, along with uses of water harvesting as a way to protect and conserve the water resources in the environment will form a part of the theme. Children will also develop skills of discussion, explanation and experimentation through this theme.

Learning Outcomes:

Children will be able to:

- discuss properties of different forms of water (solid, liquid, gas);
- explain the water cycle (as seen in daily life) in their own words;
- draw a picture of the water cycle and label different forms of water in the water cycle;
- discuss reasons for water impurities in the environment;
- explain ways of water purification used at home/school;
- appreciate the use of rainwater harvesting in daily life;
- suggest ways to conserve water.

Water as a Resource		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Revisit learning of Class II ➤ Change of state of water: evaporation, condensation through simple activities (using non-technical terms). ➤ Water impurities: types and causes. ➤ Purification of water: various ways and processes (layers cloth, boiling, chlorine.) ➤ Rainwater harvesting: need and ways of doing it.	➤ Revisiting concepts/learning in Class II. ➤ Building on previous learning. ➤ Demonstrating pictures/ films/ chart of water cycle and the process of formation of different forms of water. ➤ Drawing a picture of water cycle. ➤ Demonstrating different ways of purification of water (at home/ school) followed by group activity by children. ➤ Organising visits to show / ways/ process of rain water harvesting; and making models. ➤ Discussing various ways to purify water at home and drawing pictures of demonstrations. ➤ Providing opportunities to discuss /share, ask questions from teacher, elders regarding water impurities, causes, and types of impurities seen in daily life ➤ Encouraging children to write ways and slogans to save water.	➤ Picture/film ➤ Children's drawings on water cycle, ways of purification. ➤ A chart/pictures on the process of rain water harvesting. ➤ Model of rainwater harvesting.

Integration: Languages, Health and Physical Education, Social Studies (The Environment)

Life Skills: Sensitivity towards environment (saving water)

Theme 10: Sun as a Natural Resource

The theme 'Sun as a Natural Resource' is expected to develop an understanding of the the importance of the sun, its various uses in daily life and how the sun can be used as a renewable resource of energy. The theme would also expect to develop an understanding of energy, both renewable and non-renewable.

Learning Outcomes:

Children will be able to:

- explain the concept of energy in their own words.
- enlist what activities can be done in the sun in different seasons;
- appreciate the use of solar energy in daily life (solar cooker, solar cell, solar heater, solar panels on crossings of roads, on roof tops);
- discuss ways to save energy at home/school;
- explain that the sun is needed for the process of photosynthesis in plants;
- give reasons why the sun is necessary for living organisms;
- enlist uses of solar cell, solar cooker, etc. to save electricity/energy;
- discuss other sources of energy (renewable & non-renewable).

Sun as a Natural Resource		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Revisit learning of class II ➤ Sun as a natural source of energy. ➤ Sun for growth, photosynthesis, in plants. ➤ Use of sun for solar cooker/ cooking, drying. ➤ Solar cells as a source of electricity. ➤ Renewable & non-renewable sources of energy (meaning in non-technical terms with examples). ➤ Conservation of energy.	➤ Revisiting concepts learnt in Class II. ➤ Building on previous learning. ➤ Providing opportunities to children to share personal experiences related to sun (in different seasons) ➤ Demonstrating how the solar cooker and solar cell work and discussing their uses in daily life. ➤ Discussing how use of solar cooker, solar cell, solar panel etc. can save electricity and save the environment. ➤ Showing pictures of different seasons, to show the effect of sun on human activities. ➤ Assigning projects (individual/ group) on: ☛ Ways to save energy. ☛ Use of Sun in daily life ☛ Diagram to show conservation of solar energy	➤ Discussion on children's personal experiences. ➤ Children's drawings. ➤ Pictures and Scenes of different seasons and sun. ➤ Written description about sun. ➤ Pictures of the Solar cooker and its uses. ➤ Pictures of the Solar cell, solar panel and its uses.

Integration: Languages

Life Skills: Sensitivity towards environment (saving energy)

Theme 11: Cleanliness, Health and Hygiene

The theme aims to inculcate in children healthy habits related to oneself and the surroundings, by using their personal experiences and narratives as learning resources. The theme is also expected to develop sensitivity towards environment by using various action-oriented activities. Skills such as observation, discussing, appreciation will also be developed.

Learning Outcomes:

Children will be able to:

- ✔ demonstrate personal cleanliness of body parts;
- ✔ identify causes of unclean surroundings;
- ✔ enlist 'do's and 'don'ts' to keep the surroundings clean;
- ✔ suggest ways to keep the public places clean;
- ✔ discuss what makes the body healthy;
- ✔ follow/appreciate need for healthy living;
- ✔ appreciate the need of exercise / yoga / recreational activities for healthy living.

Cleanliness, Health and Hygiene		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Personal cleanliness: Hand washing, nails, hair, clothes, other body parts. ➤ Looking after your body in terms of food, rest, exercise, recreational activities. ➤ Cleanliness in the surroundings; causes of unhealthy surroundings (use of polythene, spitting, garbage). ➤ Ways to improve the surroundings. ➤ Knowledge about the Swachhh Bharat Abhiyan: activities for clean surroundings. 	<ul style="list-style-type: none"> ➤ Discussing and sharing the personal experiences of children. ➤ Organizing small survey (group/work) involving visiting some places near the school and sharing the status of cleanliness. This will be followed by a discussion. ➤ Assigning individual/group projects to children to meet 5 families & suggest ways to reduce garbage on the roads/surroundings. ➤ Making slogans / posters on personal hygiene and on keeping the surroundings clean. ➤ Organizing survey of some places in the school (tap, toilets, garden, playground, dustbins, etc.) and discussing in class their state of cleanliness. ➤ Discussing "Swachhh Bharat Abhiyan Mission" in the class and suggesting how to make it successful by their contributing to it through small actions. ➤ Organising visit to public places (Railway station, bus stop, open places) 	<ul style="list-style-type: none"> ➤ Personal experiences of children. ➤ Pictures depicting healthy habits (yoga, exercise personal cleanliness). ➤ Talk by a doctor/ teacher. ➤ Steps taken by parents for a clean home.

Integration: Languages, Health and Physical Education, Social Studies (The Environment)

Life Skills: Cleanliness, health and hygiene for healthy living, environmental sensitivity

Theme 1: Human Body: Food we Eat

The underlying aim of this theme is to provide information about and discuss the various components of food and also develop an awareness regarding the importance of eating a balanced nutritious diet. The content would further help in developing skills such as, i.e., classification, and sensitivity towards environment and sensitivity towards wastage of food.

Learning Outcomes:

Children will be able to:

- ☑ discuss and share various kind of food items used by a family on various occasions;
- ☑ list out food items based on 'energy giving', 'body building' and 'protection from diseases';
- ☑ classify food items into various components based on their function and cite examples of each component of food;
- ☑ explain the need for balanced diet in their own words;
- ☑ discuss the need of each food component for healthy living;
- ☑ infer why different groups of people require different amount and kinds of food (child, adult, elders, etc.);
- ☑ suggest various ways to avoid food wastage;
- ☑ appreciate the need and importance of plants/ environment in our life;
- ☑ develop a sensitivity towards plants and the environment.

Human Body: Food We Eat		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revisit concepts/ skills of learnt in Class III.</p> <ul style="list-style-type: none"> ➤ Food for energy, for work, food for growth (body building), food for protection from diseases. ➤ Components of food: Carbohydrates, Proteins, Fats, Vitamins, Minerals, Water and roughage as essential components. ➤ Examples of each group of food component. ➤ An idea of a balanced diet. ➤ Care of food to avoid wastage. 	<ul style="list-style-type: none"> ➤ Revisit concepts learnt in Class III and build on previous learning. ➤ Providing opportunities to children to share their personal experiences about the food they generally eat, what they like and do not like, different kinds of food available around them etc.; ➤ Providing opportunities to children to observe various kinds of food items, and list out those that provide energy, vitamins, minerals, body building/wear & tear (actual/visuals); ➤ Organizing group activities to classify food items based on their functions (energy giving, body building and protection from diseases); ➤ Showing documentary films/charts on balanced diet and later organizing a discussion; ➤ Conducting individual activities by 	<ul style="list-style-type: none"> ➤ Live experience of children related to food. ➤ Various kinds of food items (actual). ➤ Picture cards of different food items and their role. ➤ Documentary film on a balanced diet. ➤ Doctor and/or Dietician. ➤ Charts and visuals on food items. ➤ Magazines describing more information on food items (food of children, adults, elders). ➤ Children's portfolio ➤ Children's drawings. ➤ Worksheets provided/prepared by the teacher.

Human Body: Food We Eat

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<p>asking each child to make a menu of one week keeping the need for a balanced diet in view (under supervision of elders).</p> <ul style="list-style-type: none"> ➤ Discussing / interacting with the Dietician. ➤ Assigning individual/group projects to children on: <ul style="list-style-type: none"> • <i>Drawing pictures/ collecting pictures of each kind of group of food;</i> • <i>Preparing a component-wise chart on different food items with examples.</i> ➤ Discussing ways to avoid food wastage. ➤ Conducting activities in the school (tree plantation, care of plants) to develop a habit for care and protection of plants. 	

Integration: Languages, Health and Physical Education, Social Studies (Our State - Agriculture (Types of Crops))

Life Skills: Sensitivity towards plants/environment, appreciating the value of avoiding wastage of food.



Theme 2: Human Body: The Teeth

The main focus of this theme is to create awareness regarding the various kinds of teeth in human beings and the importance of dental care and regular check-ups. The theme will also focus on the need for daily brushing to keep teeth healthy and strong for healthy living.

Learning Outcomes:

Children will be able to:

- identify and name the different kinds of teeth in human beings;
- draw pictures of each kind of tooth and label the parts of a tooth;
- discuss the need for various kinds of teeth in human beings and explain their functions;
- infer why the old people, adults and children have different number of teeth;
- demonstrate healthy habits related to taking care of their teeth;
- give reasons why the gums and teeth get spoilt/damaged;
- suggest ways to keep teeth and gums healthy and strong;
- appreciate the importance of regular check-up of teeth;
- relate healthy food habits with the development of healthy teeth and proper brushing.

Human Body: The Teeth		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Kind of teeth in the mouth and location. ➤ Structure and Functions of each kind of tooth. ➤ Diagram with labelling of parts of a tooth, number of teeth of each kind in: infants and adults. ➤ Care of Teeth and Gums: Causes of cavities/ deficiencies and steps to prevent them. ➤ Need for regular check-up to keep teeth healthy; importance of healthy dental care habits. ➤ Role of food in the development of healthy teeth and gums. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their personal experiences (when did milk teeth first appear, how many teeth do they have, etc.) ➤ Organizing simple activities individually and in small groups with children such as: <ul style="list-style-type: none"> ☛ <i>Counting one's own teeth and sharing with the peer group;</i> ☛ <i>Visiting a dentist/ inviting a dentist to conduct a question answer session in the class;</i> ➤ Organizing discussion in small groups on care of teeth; ➤ Providing opportunities to draw pictures of kinds of teeth and labelling them; ➤ Making models of various types of teeth; ➤ Showing a documentary on care of teeth/steps showing the process to clean teeth followed by group activities to demonstrate healthy ways of brushing one's teeth. ➤ Maintaining children's portfolio to keep their medical report for regular check-ups. ➤ Discussing / interacting with the Dentist. 	<ul style="list-style-type: none"> ➤ Children's own experiences. ➤ Tooth brush, Tongue cleaner ➤ Pictures on the process of cleaning the teeth, tongue etc. ➤ Film on care of teeth. ➤ Magnifying glass to observe teeth/gums. ➤ Medical reports of children.

Integration: Health and Physical Education

Life skills: Healthy habits for a healthy living

Theme 3: Human Body: The Digestive & Excretory Systems

The main objective of this theme is to create an awareness and understanding regarding the functioning of the digestive and the excretory systems in the human body. The theme also aims at promoting healthy habits for healthy living. While transacting this theme, the concepts covered in this theme may be related with the themes 'Food we Eat' and 'The Teeth' to develop a better understanding on related concepts.

Learning Outcomes:

Children will be able to:

- ✓ draw and label parts of the digestive system;
- ✓ name and identify organs of the digestive system;
- ✓ discuss the functions of the digestive system in the human body;
- ✓ explain the functions of each digestive organ in his/her own words;
- ✓ give reasons for chewing of food for better digestion;
- ✓ name and identify organs of the excretory system;
- ✓ explain and functions of each organ of the excretory system;
- ✓ draw and label parts of the excretory system;
- ✓ discuss the need for the excretory system in the body;
- ✓ identify various habits that help to keep the digestive and excretory organs healthy.

Human Body: The Digestive and Excretory Systems

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Organs of the digestive system (mouth, food pipe, stomach, liver, small and large intestine, rectum, anus). ➤ Functions of various organs in digestion, need for chewing food well, and for regular bowel movements. ➤ Need for water. ➤ Organs of the excretory system and their functions. ➤ Healthy habits related to digestion and excretion. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their own experiences. ➤ Drawing attention to the various organs in a model/chart of the digestive and excretory systems. ➤ Opportunities to draw pictures of both the systems and labelling the organs in both the systems. ➤ Discussing the importance of water in the process of digestion and excretion. ➤ Discussing the functions of the different organs of the digestive and excretory systems, through models/charts. ➤ Discussing healthy food habits related to digestion and excretion and relating them with the children's own experiences 	<ul style="list-style-type: none"> ➤ Pictures/charts of the digestive and excretory systems. ➤ Models showing various organs of digestive and excretory systems. ➤ e-programme/content on digestive/excretory systems. ➤ Cut out of the human body locating places of various organs of both the systems. ➤ Diagrams on the digestive and excretory systems made by children. ➤ Discussion on junk and healthy food items

Integration: Languages, Health and Physical Education.

Theme 4: Adaptation in Animals

The theme 'Adaptation in animals' would discuss need for adaptation in animals by referring to the different habitats. The theme would also discuss adaptations seen in the bodies of herbivores, omnivores and carnivores. Some key concepts such as need for adaptation, reasons for adaptation in animals would also be discussed to create awareness amongst children by using various examples.

Learning Outcomes:

Children will be able to:

- discuss the need for adaptation in animals to survive in their different habitats;
- enlist reasons of adaptation in animals: on land, in air and in water;
- give examples of adaptations of animals: on land and in water;
- relate modification of body parts in various animals due to food habits (herbivores, carnivores, omnivores);
- give examples of herbivores, carnivores and omnivores;
- develop empathy, love and concern for animals.

Adaptation in Animals		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Adaptation in animals. ➤ Need for adaptations in animals. ➤ Reasons of adaptations. ➤ Examples of adaptations in animals: on land, in water. ➤ Adaption in modification of body parts in herbivores, carnivores, omnivores. ➤ Examples of each. ➤ Care and concern for animals 	<ul style="list-style-type: none"> ➤ Sharing/listening to the experiences of children related to adaptation in animals. ➤ Showing a film/picture and then creating situations to identify adaptations in various animals have. ➤ Assigning project work to children in groups/individually to develop charts depicting adaptation in animals due to water, land, food habits; ➤ Assigning Project work to children in groups /individually to develop scrap books on adaptations in animals. 	<ul style="list-style-type: none"> ➤ Pictures of animals having adaptations. ➤ Flash cards. ➤ Digital images (in animals). ➤ Web map of animals showing adaptations on land. ➤ Web map of animals showing adaptations in water. ➤ Charts prepared by children. ➤ Documentary film on adaptation in animals.

Integration: Languages, Health and Physical Education, Social Studies (Our State-Landforms, Climate, vegetation)

Life Skills: Care and concern for animals

Theme 5: Adaptation in Plants

The theme 'Adaptations in Plants' is expected to provide awareness and information regarding the need for adaptation in plants on land, in water and due to variation in habitat, along with examples. The theme would also be expected to develop skills related to observation, concern and care for plants.

Learning Outcomes:

Children will be able to:

- discuss the need for adaptation in plants to survive in their habitat;
- enlist reasons of adaptations in plants on land, water, desert and hilly areas;
- give examples of plant adaptations on land, water, desert and hilly areas;
- draw pictures of various adaptations in plants.

Adaptation in Plants		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Need for adaptation in plants. ➤ Examples of adaptation of plants on land with examples. ➤ Examples of adaptation of plants in water with examples. ➤ Examples of adaptation of plants in desert with examples. ➤ Examples of adaptation of plants in hilly areas with examples. 	<ul style="list-style-type: none"> ➤ Sharing/listening to the learning experiences of children related to adaptation in plants. ➤ Showing various plants having adaptations due to their habitats. ➤ Creating situations to identify various other plants having (after seeing pictures/films) adaptations. ➤ Assigning project work to: <ul style="list-style-type: none"> ➤ develop charts depicting adaptation of plants in different habitats i.e. water, land, ➤ develop scrap book on adaptation in different plants with examples ➤ Drawing of pictures by children of different adaptations seen in plants. 	<ul style="list-style-type: none"> ➤ Pictures. ➤ Flash cards. ➤ Digital images (various plants). ➤ Web map of plants showing adaptations. ➤ Examples of adapted plants. ➤ Charts prepared by children. ➤ Documentary film on adaptation in plants.

Integration: Languages, Social Studies (Our State-Landforms, rivers, climate, vegetation)

Life skills: Concern for the environment

Theme 6: Plants in the Surroundings and Environment

The aim of this theme is to acquaint children with the classification of plants and functions of different parts of plants. The functions of leaves along with the processes of transpiration and photosynthesis will also be discussed in a simple manner. The theme would also highlight the significance of plants in our lives by taking different examples from children's daily lives.

Learning Outcomes:

Children will be able to:

- ✓ identify plants as herbs, shrubs and trees;
- ✓ identify the kind of roots seen in plants (through observation);
- ✓ differentiate between tap and fibrous root (through observation);
- ✓ cite examples of plants with the tap and fibrous root systems;
- ✓ draw pictures and label each kind of root system;
- ✓ identify variations in leaves (observation);
- ✓ discuss the process of photosynthesis in their own words (simple non-technical language);
- ✓ demonstrate presence of iodine in a leaf through a simple experiment (with support of elders).

Plants in the Surroundings and Environment

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Parts of plants and their uses (Revisiting earlier concepts). ➤ Roots: kinds of roots, their functions and examples. ➤ Shoots: functions of the stem. ➤ Functions of the leaf: Photosynthesis, transpiration process (in simple language). ➤ Iodine test for starch in leaves. ➤ Products obtained from plants such as food items, wood, coir, rubber, fibres. 	<ul style="list-style-type: none"> ➤ Providing opportunities to observe various kinds of plants and categorizing them as herbs, shrubs and trees. ➤ Drawing pictures of leaves and colouring them. ➤ Showing through simple experiments different functions of the leaf (showing stomata, green pigment) to explain transpiration, photosynthesis (in simple language using non-scientific terms). ➤ Conducting simple experiments/ activities (hand lens) to locate stomata on the surface of leaf ➤ Providing opportunities to children to discuss various uses of plant products in our life, with examples ➤ Conducting experiment to demonstrate the process of photosynthesis ➤ Conducting experiment showing presence of starch in leaves using iodine test ➤ Providing opportunities to appreciate the significance of plants in our life. ➤ Creating a herbal garden. 	<ul style="list-style-type: none"> ➤ Various kind of leaves, different parts of plants ➤ Plant products-wood, coir, rubber. ➤ Hand lens. ➤ Apparatus required for experiments on photosynthesis and presence of iodine in leaves. ➤ Visuals /videos on the use of plants. ➤ Collection of products of plants. ➤ School's herbal garden.

Life Skills: Sensitivity towards plants and environment.

Theme 7: Air

'Air' is an important component for our life. Many activities are carried out with the help of air. This theme will help to develop clarity in children regarding properties of air, besides discussing the causes of air pollution and remedies for the same. The theme is also expected to develop experimental and observational skills.

Learning Outcomes:

Children will be able to:

- ✓ give reasons why air is important for living beings;
- ✓ demonstrate some properties of air through simple experiments (air has weight, occupies space, expands and has no colour);
- ✓ demonstrate the process of inhalation/exhalation of air;
- ✓ discuss causes of air pollution in the environment / surroundings;
- ✓ suggest ways/remedies to reduce air pollution in the environment;
- ✓ show concern about the environmental activities which cause air pollution.

Air		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revision of Class III-Matter</p> <ul style="list-style-type: none"> ➤ Some properties of air i.e., occupy space, weight, expands, no colour. ➤ Composition of air (gases + water vapour). ➤ Process of breathing and burning. ➤ Causes of air pollution – dust, smoke, spitting (germs/bacteria, Virus), preventive measures to keep air clean. 	<ul style="list-style-type: none"> ➤ Revisiting concepts learnt in the earlier classes. ➤ Building on children's earlier learning. ➤ Conducting simple experiments to demonstrate that air has weight, occupies space, air expands. ➤ Arranging live demonstration to show the process of inhalation/ exhalation of air by lungs. ➤ Arranging a class activity for all children to demonstrate the process of breathing and deep breathing for healthy living. ➤ Organizing group discussions to identify causes of air pollution. ➤ Assigning projects (group work) to children to list down ways to prevent air pollution. ➤ Facilitating origami activities with children like making kites, aeroplanes, etc. ➤ Decorating the classroom by making small kites. 	<ul style="list-style-type: none"> ➤ Apparatus /objects required to conduct experiments. ➤ Project work report on causes of air pollution. ➤ Project work report on ways to prevent air pollution. ➤ Origami material.

Integration: Languages, Health and Physical Education, Social Studies (Pollution- its impact on the environment, The Earth- Atmosphere)

Theme 8: Materials and Solutions

The theme 'Materials and Solutions' is expected to develop in children an understanding of the meaning 'solute', 'solvent' and 'solution' through daily life examples. The theme would also deal with various methods of separation of insoluble material from water/liquids.

Learning Outcomes:

Children will be able to:

- discuss/share examples of solvent, solute and solution in day-to-day life;
- explain each term in their own words;
- conduct experiments to make solutions by using solute and solvent;
- identify various methods of separation of solute and solvent from solution;
- distinguish between the methods of sedimentation, filtration and evaporation;
- give an example of the methods of - sedimentation, filtration and evaporation;
- differentiate between soluble and insoluble substances in liquids;
- cite examples of soluble and insoluble substances.

Materials and Solutions		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revisit learning of Class III</p> <ul style="list-style-type: none"> ➤ Definition- solvent, solute and solution, giving examples of each (simple language). ➤ Soluble and insoluble substances giving examples of each (solubility in oil, water) ➤ Method of separation: sedimentation, decantation, filtration, evaporation. 	<ul style="list-style-type: none"> ➤ Building on previous learning and concepts. ➤ Conducting simple experiments to demonstrate how to make solutions in various solvents. ➤ Conducting activities/ to demonstrate various ways of separating impurities from a solution. ➤ Conducting simple experiments showing soluble and insoluble substance in solvent. ➤ Encouraging children to cite examples of various solutions used in day-to-day life. ➤ Citing examples of the process of sedimentation, decantation, filtration and evaporation. ➤ Demonstrating to children in groups and as a whole class: <ul style="list-style-type: none"> ☛ the process of sedimentation (sand + water, clay + water); ☛ the process of decantation, filtration and evaporation (sugar in water). 	<ul style="list-style-type: none"> ➤ Collection of soluble and insoluble substances. ➤ Apparatus to show making of a solution. ➤ Sieving apparatus, filter paper. ➤ Apparatus to show evaporation activity.

Theme 9: Light

The expectation of this theme is to create awareness about various sources of light in the environment and simple properties of light, by taking examples from daily life. The theme is also expected to provide an understanding of how a shadow is formed and various uses of natural sources of light. The theme would also focus on how to save and conserve light energy in our day-to-day lives.

Learning Outcomes:

Children will be able to:

- ☑ identify various sources and uses of light in the environment;
- ☑ distinguish between natural and artificial sources of light;
- ☑ cite examples of natural and artificial sources of light;
- ☑ appreciate the use of natural source of light in our day-to-day life;
- ☑ differentiate between luminous and non-luminous objects;
- ☑ differentiate between transparent, translucent and opaque objects in the surroundings;
- ☑ cite examples of each type of object, i.e. transparent, translucent and opaque;
- ☑ explain the process of shadow formation in simple language.

Light		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Source of light: natural and artificial. ➤ Examples of sources of natural and artificial light. ➤ Luminous/non-luminous objects. ➤ Properties of light. ➤ Transparent, translucent and opaque objects. Examples of each category of objects. ➤ Uses of these objects in daily life. ➤ Formation of shadows (how a shadow is formed - not in technical terms). 	<ul style="list-style-type: none"> ➤ Creating situations for sharing personal experiences of children and discussing them. ➤ Demonstrating luminous and non-luminous objects (plain paper and paper with oil drop). ➤ Initiating discussion, asking questions related to light and its properties, showing simple activities/experiments. ➤ Organizing activities to identify different objects as transparent, translucent and opaque. ➤ Conducting experiments to demonstrate how shadow is formed. 	<ul style="list-style-type: none"> ➤ Pictures/live examples of various sources of light. ➤ Objects depicting transparent, translucent, opaque features. ➤ Photographs/Pictures on the process of shadow formation.

Integration: Social Studies (Motions of the Earth)

Theme 10: Measurement

The theme 'Measurement' is expected to develop an awareness and understanding of the need for a unit of measurement to explain any object, process and phenomenon. The theme would also discuss various measuring instruments used in daily life. The emphasis of this unit is not only to develop scientific understanding but also to create a functional understanding of measurement in children.

Learning Outcomes:

Children will be able to:

- ✓ appreciate the need for measurement of various things/phenomenon;
- ✓ identify various instruments used for measurement;
- ✓ differentiate various instruments based on their uses in daily life;
- ✓ give examples of unit of measurement of some objects;
- ✓ cite examples of activities where unit of measurement is required.

Measurement		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Need for measurement ➤ Examples of measurement in daily life (buying goods, watching time) ➤ Simple description of instruments used for measurement (ruler, tape, weighing machine, thermometer, clock) ➤ Use of each instrument, how to read/use them. 	<ul style="list-style-type: none"> ➤ Providing opportunities for discussion, interaction among peer group; child and teacher. ➤ Creating situations in the classroom for questioning, making questions. ➤ Demonstrating each instrument to observe and describe. ➤ Discussing uses of each instrument in daily life. ➤ Demonstrating 'How to use' with instructions. 	<ul style="list-style-type: none"> ➤ Discussion/question answer interaction among children and teacher ➤ Instruments used for measurement (scale, tape, weighing machine, ruler, clock, etc.) ➤ Examples/situations where unit of measurement is required ➤ Children's drawings.

Integration: Mathematics (Measurement)



Theme 11: Push and Pull

In this theme, children will learn that pushes and pulls are examples of Force which can change the shape/ direction of an object. Children will also be familiarized with the various kinds of forces experienced in day-to-day life.

Learning Outcomes:

Children will be able to:

- discuss examples of push and pull seen in day-to-day life;
- differentiate between push and pull and give examples of each;
- describe push and pull in their own words (not definition);
- identify various kind of forces seen in day-to-day life (muscular, gravitational, magnetic, frictional);
- explain each force in their own words;
- cite examples of each force by relating it with daily life;
- demonstrate push and pull situation in a group activity (with safety precautions).

Push and Pull		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ The concept/ meaning of push and pull and difference between the two; ➤ Examples of push and pull. ➤ Force: meaning in simple terms, changes shape of objects and direction; ➤ Meaning of various types of forces – muscular, gravitational, magnetic and frictional. 	<ul style="list-style-type: none"> ➤ Showing and discussing the difference between push and pull and citing examples of each in groups; ➤ Sharing/showing push and pull situations as a demonstration activity and later involving students to do it in groups; ➤ Demonstrating various kinds of forces through simple activities, ➤ Organizing group activities for demonstration of various kinds of forces by children and explaining them in their own words 	<ul style="list-style-type: none"> ➤ Apparatus/Objects to demonstrate push and pull ➤ Pictures of examples of push and pull in real life situations.

Integration: Physical Education.



Theme 12: Friction as a Force

In this theme, children will build on their previous knowledge of Forces and learn more about Friction as a force and the role it plays in our lives. The theme will focus on uses of friction and also on concept formation by using simple examples.

Learning Outcomes:

Children will be able to:

- ✔ cite examples of friction observed in daily life and explain friction in their own words;
- ✔ explain uses and harmful effects of friction in daily life;
- ✔ conduct simple activities/experiments demonstrating friction.

Friction as a Force		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Friction – meaning, concept. ➤ How to reduce friction (oil, powder). ➤ Uses of friction. ➤ Harmful effects of friction. ➤ Examples of friction. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to discuss / share their experiences. ➤ Conducting activities / experiments that demonstrate friction. ➤ Creating situations to demonstrate friction on various kinds of surfaces. ➤ Asking children to identify situations where friction may be harmful. 	<ul style="list-style-type: none"> ➤ Children's experiences. ➤ Oil, powder and other objects that can illustrate friction. ➤ Different surfaces ➤ Playing Carom Board.



Theme 1: Human Body: The Circulatory System

The prime focus of this theme is to introduce children to the different organs involved in the process of blood circulation and to make them understand how the different organs of the circulatory system function. The second focus of this theme is to develop awareness regarding how to keep the body healthy by using some simple physical/ yogic exercises.

Learning Outcomes:

Children will be able to:

- ☑ identify organs of the circulatory system in a picture/model;
- ☑ locate position of each organ on the human body (Cut outs);
- ☑ draw pictures of various organs of the circulatory system and label them;
- ☑ describe functions of each organ and explain the process of circulation using scientific terms/words;
- ☑ differentiate between arteries and veins and name the major arteries and veins;
- ☑ explain functions of blood;
- ☑ discuss various ways (yoga exercises) to keep the heart healthy and strong;
- ☑ do simple yogic exercises to keep the body strong and healthy under the guidance of expert /teacher (deep breathing).

Human Body: The Circulatory System

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Revisit learning of Class IV on human body. ➤ Circulatory System. ➤ Organs/Parts of the circulatory system, their structure, functions (heart, arteries, veins), functions of blood. ➤ Process of circulation through pictures, visuals in simple terms (no technical knowledge to be given). 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to observe various organs related to the circulatory system (using models, pictures). ➤ Organizing group discussion to observe chart showing various organs & process of circulation. ➤ Providing opportunities to children to develop working model on circulatory system. ➤ Performing simple <i>Asanas</i> to show deep breathing pranayama and asking the children to follow and practice doing the same ➤ Drawing and labelling circulatory system individually in the class. ➤ Showing slides of blood and discussing blood reports. ➤ Demonstrating inhaling and exhaling process 	<ul style="list-style-type: none"> ➤ Pictures / diagrams of internal organs. ➤ Diagram of the circulatory system, model of heart. ➤ Working model of the circulatory system. ➤ Cut outs of the human body showing the circulatory system. ➤ Material on process of circulation ➤ Diagram made by children of the circulatory system and organs. ➤ Microscope to observe blood slides ➤ Video.

Theme 2: Human Body: The Skeletal System

This theme introduces children to the Skeletal System. The main objective of this theme is to provide information related functions of bones, body movement and movement of different kind of joints. The theme is also expected to provide awareness regarding how to keep the body healthy by performing simple exercises. Importance of a healthy diet for bones and muscles to function, will also be discussed in this theme.

Learning Outcomes:

Children will be able to:

- ☑ identify major bones of the human body and name them;
- ☑ draw diagrams of major bones and name them;
- ☑ describe functions of major bones of the human body;
- ☑ locate major joints of the human body and discuss their functions;
- ☑ draw diagrams of the shoulder and knee joints and their location in the body;
- ☑ give examples of other kinds of joints in the human body;
- ☑ identify food items that are calcium rich;
- ☑ following simple exercises (under guidance) to make bone and muscles strong;
- ☑ demonstrate correct posture to keep body healthy and strong both in sitting /standing position.

Human Body: The Skeletal System

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Skeleton system-bones. ➤ Importance of bones, muscles and joints for the body. ➤ Functions of bones, major bones of the body - arms, legs, chest bone, skull, jawbone, backbone. ➤ Care of bones and joints, food items to make the bones strong. ➤ Importance of good posture and exercise. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share and discuss information related with this theme. ➤ Providing opportunities to observe visuals and pictures of actual bones, in the skeleton system to develop clarity on this theme. ➤ Making drawings of bones/muscles and labelling them. ➤ Giving opportunities to children to observe different kinds of joints and demonstrating how they work. ➤ Demonstrating simple physical exercises to improve body posture. ➤ Initiating discussions related to improving body health. ➤ Demonstration of correct posture for standing and sitting positions. ➤ Yoga exercises for muscles and joints 	<ul style="list-style-type: none"> ➤ Skeleton of whole human body. Bones, Joints of knee, shoulder, elbow. ➤ Charts showing different bones, joints, jaws, etc. ➤ Children's drawing of major bones and joints. ➤ Food items rich in calcium and minerals.

Theme 3: Food and Health

In the previous classes, children learnt about the significance of various components of food for healthy living. In this theme, children will learn about diseases related to food habits / lifestyle, along with deficiency diseases. Harmful effects of junk food and ways to avoid them will also be covered in this theme.

Learning Outcomes:

Children will be able to:

- ✓ discuss various components of food required for healthy living;
- ✓ give reasons of the need for a balanced diet;
- ✓ enlist healthy and junk food items and differentiate between them;
- ✓ suggest/find out some ways to make diet healthier;
- ✓ give reasons for some deficiency diseases and find out ways to prevent/reduce them;
- ✓ develop awareness regarding adulteration in food items;
- ✓ find out diseases related to life style, including those related to food habits;
- ✓ state symptoms of some lifestyle diseases such as obesity, anaemia, diabetes, blood pressure;
- ✓ suggest some ways to avoid these diseases;
- ✓ infer why sprout food and fermented food is good for health;
- ✓ appreciate the use of various components of food for our body.

Food and Health		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revisit previous learning.</p> <ul style="list-style-type: none"> ➤ Components of a balanced diet, importance of eating a balanced diet. ➤ Junk food: meaning and examples; adverse effects of eating junk food. ➤ Ways to make diet more healthy (e.g. sprouting, fermentation). ➤ Diseases related to food habits, life style (obesity, anaemia, diabetes, blood pressure); and symptoms of the diseases in simple terms. Prevention of these diseases in non-technical terms. ➤ Deficiency diseases - some common deficiency diseases (Kwashiorkor, marasmus, night blindness, anaemia, rickets, scurvy, beriberi, goitre); and ways to prevent them. 	<ul style="list-style-type: none"> ➤ Building on previous learning. ➤ Providing opportunities to children to discuss components of food & their effects on health. ➤ Organizing simple activities to classify junk and healthy food. ➤ Undertaking project work and evolving ways to avoid junk food and writing slogans and exploring various other practical solutions. ➤ Conducting small group activities with children for them to find out the kind of food adulterants, and their effects (support material). ➤ Providing opportunities to see films on lifestyle related diseases and discussion on for their prevention. ➤ Organizing talks and interaction with a doctor to 	<ul style="list-style-type: none"> ➤ Children's experiences related to daily life. ➤ Various kind of food items rich in carbohydrates, protein, fats, vitamins and minerals. ➤ Various food items shown as junk food. ➤ Examples of various kinds of food items as rich in carbohydrates, proteins, fat, minerals vitamins, roughage and water. ➤ Material on various kinds of diseases (other than textbook) ➤ List of healthy food items (examples). ➤ Materials/pictures on various deficiency diseases. ➤ Narratives on deficiencies / life style related.

Food and Health		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Meaning of food adulteration; examples of some common adulterants (awareness level only).</p>	<p>learn more about healthy food habits, deficiency diseases and ways to prevent them.</p> <p>➤ Conducting survey in the children's surroundings/local neighbourhood.</p> <p>➤ Discussing diseases related to life style and ways to avoid them.</p> <p>➤ Discussing diseases related to deficiency of food components.</p>	

Integration: Languages



Theme 4: Pollination

This theme aims to introduce children to the process of pollination in plants.

Learning Outcomes:

Children will be able to:

- identify various parts of flower and label each part;
- draw diagrams of each part of a flower (after observation);
- locate parts of a flower involved in the process of pollination;
- explain/discuss process of pollination by using technical terms;
- differentiate between self and cross pollination and cite examples of each kind (showing pictures);
- recognise and relate the need of the pollination for plants.

Pollination		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
Revise parts of a flower. ➤ Androecium and gynoecium. ➤ Pollination. ➤ Bisexual and monosexual flowers. ➤ Process of pollination. ➤ Some ways of pollination (self and cross pollination).	➤ Revisiting previous concepts and learning. ➤ Building on previous learning. ➤ Showing pollen grains in flowers, and their transfer. ➤ Creating opportunities for group discussion, asking questions and sharing experiences by children. ➤ Conducting simple experiments/activities to locate different parts of the reproductive organs in a flower ➤ Asking children to draw pictures of a flower, parts of reproductive organs and to label them. ➤ Making worksheets on the concepts related with this theme.	➤ Different flowers with reproductive parts (male and female) ➤ Bisexual and mono -sexual flower diagrams made by children of the flower and reproductive parts. ➤ Charts/ diagrams of different kind of flowers. ➤ Charts/ pictures/ e-content depicting pollination/process. ➤ Examples of self and cross pollination in flower. ➤ Worksheets.

Theme 5: Plant Reproduction

The theme introduces children to sexual and vegetative reproduction in plants. Methods of seed dispersal will also form a part of this theme.

Learning Outcomes:

Children will be able to:

- draw and label the male and female reproductive parts of a flower;
- discuss the need for the process of fertilization in plants;
- explain the process of fertilization in plants;
- identify the different kinds of reproduction in plants (by observing pictures);
- cite examples of different kinds of reproduction in plants;
- identify various parts through which vegetation reproduction takes place and give examples.
- give examples of each kind of seed dispersal;
- discuss the need and significance of seed dispersal.

Plant Reproduction		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Process of sexual reproduction in plants: fertilization and formation of seed. ➤ Dispersal of seeds (air, water, animals). ➤ Other ways of reproduction in plants: Vegetative reproduction: meaning; vegetative-reproduction from stem cuttings (potatoes, onion, ginger) root (carrot), leaf (Bryophyllum). 	<ul style="list-style-type: none"> ➤ Conducting simple activities (small group/individually) to observe, draw, compare and clarify different parts of reproductive organ in plants. ➤ Arranging visits to a nursery for children to observe vegetative reproduction in some plants. ➤ Worksheets on new concepts practiced by children. ➤ Collecting different seeds and their classification based on dispersal methods. ➤ Project work by children in groups or individually on growing plants through vegetative propagation in potato. ➤ Demonstrating experiments on process & conditions for seed germination. 	<ul style="list-style-type: none"> ➤ Children's drawings, visuals/charts of the reproductive organs. ➤ Flowers with androecium, gynoecium. ➤ Chart/e-program showing the fertilization process. ➤ Plants having vegetative reproduction (i.e. potato, carrot, ginger). ➤ Nursery/ School garden. ➤ E-content-on plant reproduction. ➤ Children's project work. ➤ Collection of different kinds of seeds. ➤ Examples of various kind of dispersal of seeds.

Integration: Social Studies.

Theme 6: Solids, Liquids and Gases

The theme introduces children to different forms of matter (solids, liquids and gases) and their physical properties through simple demonstration and activities. The theme is also expected to develop an understanding of a number of concepts related to the properties of solids, liquids and gases.

Learning Outcomes:

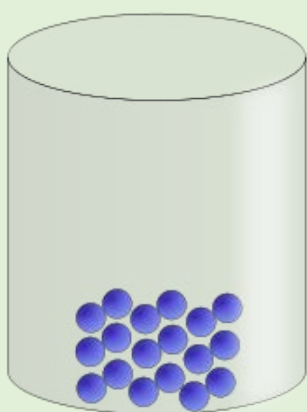
Children will be able to:

- ✔ identify different forms of matter and cite examples of each based on observable properties;
- ✔ state simple properties of solids and demonstrate the same through simple activities;
- ✔ state simple properties of liquids and demonstrate the same through simple activities;
- ✔ state simple properties of gases and demonstrate the same through simple activities;
- ✔ describe composition of air and depict it diagrammatically;
- ✔ cite examples of warm and fresh air in different situations in daily life;
- ✔ differentiate between wind, breezes, storms and give examples;
- ✔ explain why ventilators and windows are needed in houses, buildings and halls;
- ✔ relate the use of fans, air conditioners and coolers in different seasons.

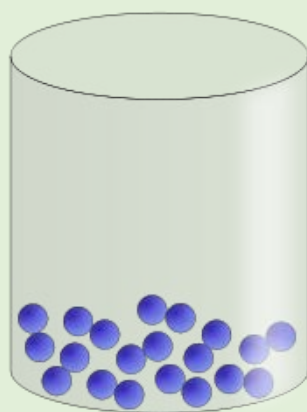
Solids, Liquids and Gases		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revision of Class III learning</p> <ul style="list-style-type: none"> ➤ Solids: Properties of solids: definite shape, geometry. Give examples of sugar crystals. ➤ Liquids: Properties of liquids: occupy space, flow from high level to low level, take the shape of the container. ➤ Separation of liquids from solids. ➤ Gases: Properties of gases: no definite shape and volume. ➤ Composition of gases in air; with experiment- land and sea breezes, monsoon breezes. ➤ Role of ventilators in houses/halls, closed spaces- warm air lighter than fresh air. 	<ul style="list-style-type: none"> ➤ Revisiting concepts. ➤ Building on previous learning. ➤ Showing some crystals of sugar, copper sulphate, potash alum to children. ➤ Conducting experiments to demonstrate how to make solutions by using various solvents. ➤ Conducting activities/experiments demonstrating various ways of separating impurities. Take a liquid- milk, water, some juice etc. Take different containers like test tubes, beakers, glasses of different sizes. Transfer a definite volume of liquid from one container to the other. Show that the liquid changes its shape and takes the shape of the container. ➤ Conducting simple experiments showing soluble and insoluble substances in solvents. ➤ Citing examples of various solutions used in day-to-day life. ➤ Organizing demonstration to show the 	<ul style="list-style-type: none"> ➤ Some crystals of sugar, copper sulphate and potash alum. ➤ Soluble and insoluble substances; examples of soluble and insoluble substances. ➤ Apparatus for conducting simple experiments to describe properties of solids, liquids and gases. ➤ Different sizes of containers and liquids. ➤ Sand, water, sieve and filter paper. ➤ Gas chimneys, exhaust fan in kitchens and laboratories.

Solids, Liquids and Gases

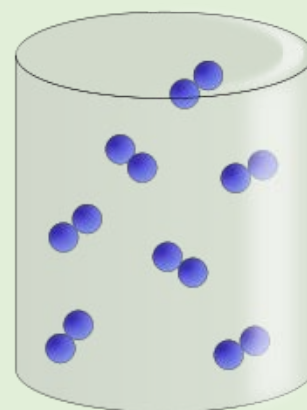
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<p>processes of separation, sedimentation, decantation, filtration, and their examples.</p> <ul style="list-style-type: none">➤ Asking children to blow air into a balloon. Showing them that air occupies different volumes in balloons and that balloons can expand.➤ Giving examples of filling air in tyres of bicycle, cars, trucks, etc.➤ Giving examples of coolers and exhaust fans. Showing children how smoke is thrown out by exhausts and chimneys.	



Solid



Liquid



Gas

Theme 7: Interdependence in Living Beings-Plants and Animals

This theme aims to develop an understanding of the relationship between producers (as plants) and consumers (as animals) and their inter-relationship in the environment. Concepts related to the food chain, producers, consumers will also be developed under this theme.

Learning Outcomes:

Children will be able to:

- ☑ differentiate between plants and animals based on some features (plants as producer while animals as consumers);
- ☑ infer why plants can make their own food;
- ☑ cite examples of producers and consumers;
- ☑ classify living beings as producers and consumers;
- ☑ explain the food chain by taking examples as seen in daily life;
- ☑ identify decomposers, scavengers and cite their examples;
- ☑ discuss and explain causes of imbalance in nature;
- ☑ generalize/ infer the effect of hunting, forest fires in the environment.

Interdependence in Living Beings-Plants and Animals

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Plants as producers, living things as consumers, their examples. ➤ Simple food chains, scavengers and decomposers. ➤ Causes of imbalance in nature (some example: hunting, forest fire). 	<ul style="list-style-type: none"> ➤ Creating opportunities for group discussion, asking questions and sharing experiences by children. ➤ Organising group activities to identify producers and consumers. ➤ Providing material on producers/ consumers and making e-material available. ➤ Developing/creating worksheets for new concepts. ➤ Providing learning opportunities to children to make a model of the food chain. ➤ Initiating a class discussion on what would happen if one of the producers or consumers in the food chain disappeared. ➤ Organising project work on field visit experiences. 	<ul style="list-style-type: none"> ➤ Pictures/ materials on producers and consumers. Examples of various producers and consumers. ➤ Examples and visuals of the food chain. ➤ Visuals and examples of decomposers. ➤ Visual and examples of scavengers. ➤ Children's experiences.

Integration: Social Studies, Languages

Theme 8: Sound and Noise

The theme 'Sound and Noise' has been included in the Science curriculum with the aim of developing awareness regarding the negative effects of noise on health. The theme will discuss ways of reducing noise in the surroundings. It also aims to generate understanding of the difference between noise and sound, causes of noise in the surroundings and uses of sound as warning signals.

Learning Outcomes:

Children will be able to:

- identify objects that produce pleasant sounds and objects that produce unpleasant sounds;
- recognise sounds produced by some common objects;
- identify sounds produced by some animals and mimic them;
- identify sounds produced by trees and fallen leaves;
- appreciate the importance of sound as a warning signal to save life;
- enlist causes of noise pollution;
- suggest some ways to reduce noise in the surroundings;
- discuss how loud sound affects health.

Sound and Noise		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Sounds made by common objects (clock, whistle, tea kettle, cooker, piano, call bell, flute, etc.). ▶ Sound made by living beings – plants, animals, human beings. ▶ Sound made by trees and fallen leaves. ▶ Pleasant and unpleasant sounds. ▶ Warning sounds (fire alarm, ambulance siren). ▶ Harmful effect of loud noise (vehicle, loud speaker, fire cracker). ▶ Ways to reduce noise pollution. 	<ul style="list-style-type: none"> ▶ Providing opportunities to children to share personal experiences related to sounds that are pleasant /unpleasant. ▶ Citing examples of pleasant and unpleasant sounds. ▶ Organising group activity to identify sounds of some objects (by using audios tape or mobiles). ▶ Discussing various causes of noise pollution (based on personal experiences) and suggesting ways to overcome them. ▶ Discussing uses of warning sounds (doing mock exercises). ▶ Organizing quizzes/riddles on issues related to noise pollution. 	<ul style="list-style-type: none"> ▶ Personal experiences of children. ▶ Mimic of various sounds. ▶ Documentary film on sounds of various vehicles, warning sounds. ▶ Sounds, made by various vehicles/ objects / instruments.

Integration: Social Studies, Languages

Theme 9: Work and Energy

This theme aims at developing an understanding of 'Work' and 'Energy' and the relationship between the two. The theme further discusses renewable and non-renewable sources of energy used in daily life and the need to save energy.

Learning Outcomes:

Children will be able to:

- indicate various food items that give more energy than other food items;
- discuss the meaning of work by taking examples from daily life;
- cite examples and explain the situations where work is done/ work is not done;
- demonstrate through activity, work done/ work not done, in different situations;
- explain why energy is needed for work;
- differentiate between work and energy with examples;
- give examples from daily life of the amount of energy required for different kinds of work;
- enlist different forms of energy (light, electricity, heat, sound) and give examples of each kind;
- appreciate the importance of energy (light) in daily life.

Work and Energy		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Meaning of work, examples of work done/not done. ➤ Definition of energy; energy is need for work. ➤ Renewable and non-renewable sources of energy, examples of each kind. ➤ Various kinds/forms of energy - light, heat, electricity, sound. 	<ul style="list-style-type: none"> ➤ Initiating discussion on personal experiences of children and sharing with peers. ➤ Introducing new concept (work, energy) by giving various examples. ➤ Conducting simple activities with children that help to demonstrate when work is done in different situations. ➤ Demonstrating different forms of energy through various forms of energy activities. 	<ul style="list-style-type: none"> ➤ Personal experiences of children. ➤ Narratives to save energy. ➤ Examples of different kinds of work done/not done. ➤ Demonstration/ activities depicting meaning of work done. ➤ Examples of different forms of energy with and without pictures.

Integration: Social Studies.

Theme 10: Light and Shadows

The aim of introducing this theme is to develop concepts related to light and shadow. Some physical properties of objects i.e. transparent, opaque, translucent would also be discussed with examples. Another objective is to introduce some simple features of light and its uses and process of shadow formation in simple language.

Learning Outcomes:

Children will be able to:

- conduct simple activities by using various objects and classify them;
- record observations of each object (as kind of material);
- conduct simple experiment/activity to form the shadow (with the support of elders);
- infer why a shadow is formed and what conditions are required for its formation;
- enlist changes seen in sun in the morning, afternoon, evening and night (advise not to see sun with naked eyes);
- infer why day/night are formed;
- differentiate between different motions of earth (revolution of earth);
- explain the phenomenon of solar eclipse in simple language.

Light and Shadows		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revisit previous learning: Objects as transparent, translucent, opaque; features of each type of objects.</p> <ul style="list-style-type: none"> ➤ Formation of shadows: in day, night, dim light; ➤ Condition for formation of shadows; ➤ Day and night formation; some idea of solar and lunar eclipses 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their personal experiences, discussion with teacher and peer group. ➤ Conducting simple activities/experiment to observe simple properties of light. ➤ Providing opportunities to observe and classify objects as transparent, translucent and opaque. ➤ Conducting simple activities by children to demonstrate shadow formation with the support of teacher. ➤ Creating opportunities to enlist uses of light in daily life. ➤ Conducting simple experiment to demonstrate how day and night are formed (simple idea – to be dealt with in greater detail in Social Studies/ Geography). ➤ Depicting activities on movement or revolution and rotation of earth ➤ Demonstrating through simple experiment how solar and lunar eclipses are formed. ➤ Filling up of work sheets by children on learnt concepts. 	<ul style="list-style-type: none"> ➤ Live experiences of children related to this theme. ➤ Luminous and non-luminous objects. ➤ Material used to show objects as transparent, translucent and opaque. ➤ Examples of transparent, translucent and opaque objects ➤ Experiment/activities explaining how shadow is formed. ➤ Picture depicting how day /night is formed ➤ Activities/demonstration depicting movement or revolution and rotation of earth. ➤ Picture/demonstration to show solar and lunar eclipses.

Theme 11: Simple Machines

The theme 'Simple Machine' aims to help students understand how machines have made our lives simple and the variety of machines used in our daily lives. The children will also be introduced to the various kinds of levers.

Learning Outcomes:

Children will be able to:

- appreciate the discovery and use of simple tools/machines in daily life;
- enlist tools/ simple machines used in day to-day life;
- classify simple machines based on their working principles (levers I, II, III);
- give examples of each kind of simple machines;
- discuss the need for levers to form different kinds of machines;
- draw picture of each kind of machine and label major parts;
- conduct simple experiments/activities to demonstrate how simple machines function.

Simple Machines		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Need for machines. ➤ Types of simple machines used in day-to-day life (lever, screw, pulley). ➤ Need for levers, types of levers, I, II, III order, examples related to daily life. 	<ul style="list-style-type: none"> ➤ Creating various situations to listen children's experiences related with the use of machines in daily life. ➤ Relating the theme to body parts joints, acting as levers (e.g. elbow joint, knee joint). ➤ Showing simple machines, which are used in kitchen, at home and in school. ➤ Explaining principles on which different machines function. ➤ Conducting activities to identify different kind of machines and classifying them into 3 categories (Lever I, II, III). ➤ Drawing of different kinds of machines in the class. ➤ Giving hands-on experiences to make models of machines. ➤ Demonstrating and conducting activities on how simple machines work. 	<ul style="list-style-type: none"> ➤ Children's experiences related to simple machines. ➤ Various kind of simple machines used in daily life. ➤ Activities conducted to classify machines having levers as I, II, III. ➤ Pictures of different kinds of machines. ➤ Children's drawings.

Theme 12: Cleanliness and Hygiene

The theme Cleanliness and Hygiene is viewed as an essential area and has therefore been included in EVS as well in Classes I & II. The idea of including this theme in Class V is to reinforce healthy habits for healthy living. In addition, it will help to create an awareness in children about how one can contribute towards keeping the surroundings clean.

Learning Outcomes:

Children will be able to:

- ✓ demonstrate when and how to wash their hands for healthy living;
- ✓ identify causes of source disease which occur due to unclean surroundings, personal hygiene;
- ✓ develop awareness and sensitivity towards keeping public places clean;
- ✓ share cleanliness issues with family members so that healthy habits can be developed among family members as well;
- ✓ identify degradable and non-degradable garbage in the surroundings and give examples of each;
- ✓ discuss how to reduce non-degradable garbage to keep the surroundings clean;
- ✓ create slogans and demonstrate how to dispose-off garbage in the surroundings.

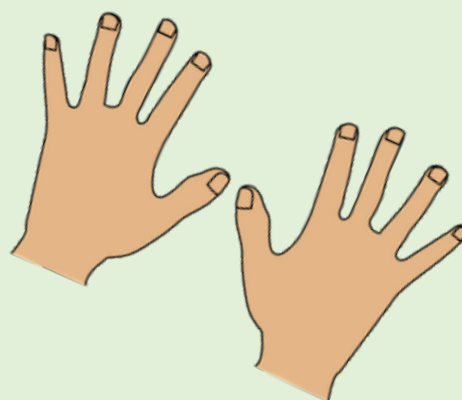
Cleanliness and Hygiene		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Revisit learning of Class III particularly for inculcation of healthy habits.</p> <ul style="list-style-type: none"> ➤ Cleanliness of body, body parts, their care, cleanliness of clothes, food, water, healthy habits. ➤ Diseases due to lack of personal hygiene and unclean surroundings. ➤ Degradable and non-degradable garbage with examples. ➤ How to reduce non-degradable garbage in the surroundings. 	<ul style="list-style-type: none"> ➤ Building on children's previous learning. ➤ Providing opportunities to children to discuss, interact, ask questions, and share personal experiences during T-L process. ➤ Demonstration of some hands-on activities for habit formation (hand washing). ➤ Providing opportunities to children as part of group work to discuss issues related to cleanliness. ➤ Preparing work sheets for practice. ➤ Arranging and conducting quizzes/question answer sessions. ➤ Conducting awareness campaigns on cleanliness personal hygiene. ➤ Assigning project work on various issues (e.g. slogan for awareness on cleanliness). ➤ Showing children degradable and non-degradable materials in the environment and encouraging them to segregate at source. ➤ Giving projects to children to identify ways in which they can reduce non- 	<ul style="list-style-type: none"> ➤ Materials used for cleanliness (*House). ➤ Personal cleanliness material (Body). ➤ Demonstration on proper washing hands (by elders). ➤ Hand wash material. ➤ Posters on communicable diseases ➤ Matching cards (Names of diseases & their symptoms). ➤ Examples of degradable materials. ➤ Examples (material) of non-degradable material. ➤ Slogans on awareness generation on garbage disposal. ➤ Worksheets, quizzes and riddles on the theme.

Cleanliness and Hygiene

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<p>biodegradable garbage in their own homes/ schools.</p> <ul style="list-style-type: none">➤ Asking children to prepare slogans on awareness generation on garbage disposal.➤ Asking children to make two dust bins – for degradable and non-degradable garbage in the class.	

Integration: Languages, Health and Physical Education

Note: *Hand washing and cleanliness messages need to be reinforced regularly in all grades so as to make this as habit.*



*SOCIAL
STUDIES*

Social Studies

(III-V)



Social Studies is the study of social, cultural and environmental aspects of societies in the past, present and future. It equips children with the knowledge and understanding of the past, necessary for coping with the present and planning for the future. It enables children to understand and participate effectively in their surroundings in the world outside.

Social Studies includes diverse concerns of society and a wide range of content drawn from the disciplines of History, Civics and Geography. The children are introduced to their past through their heritage, family system, changes around them, national and cultural events on the basis of evidences and varied sources. It also enables them to participate effectively in society and explain their relationship to the civic society, public and private property, governance and their role in it. This particular area of the curriculum plays an important role in generating sensitivity towards and developing human values of compassion, trust, peace, co-operation, social justice, environmental protection, respect for diversity in the family, public and private property and faith in constitutional values.

Children develop skills, attitudes and values towards society in their formative stage in life. The development of these attitudes and values occurs primarily outside the social setting. However, Social Studies should provide a setting and platform for children to acquire knowledge of society and to be exposed to information and a broad variety of ideas and opinions to become responsible citizens and make their own decisions in life.

Objectives of teaching / learning of Social Studies:

The major objectives of teaching-learning Social Studies is to enable children to:

- ☛ Develop knowledge, skills and attitudes necessary for informed and thoughtful participation in society.
- ☛ Provide an idea of the way historians came to know about the past, creating a sense of historical diversity and introduce children to time lines and historical maps.
- ☛ Imbibe the values of the Indian Constitution and their significance in day-to-day life.
- ☛ Develop social, cultural and analytical skills required to adjust to an increasingly interdependent and interconnected world, to deal with social, political and economic realities.
- ☛ Create a strong a sense of human values, namely freedom, mutual respect, trust, and a healthy respect of diversity.
- ☛ Generate a critical, moral and mental energy making them alert to social forces that threaten these values.
- ☛ Understand the normative dimensions like issues of equality, justice and dignity in society and polity.
- ☛ Address concerns related to gender, good health, national issues, safety, hygiene and cleanliness of self and the environment in a careful manner.

Some suggestive Pedagogical Principles

While transacting Social Studies in classrooms some pedagogical principles that would facilitate transaction of quality teaching-learning are highlighted below:

- Each child is unique and hence learns at his/her own pace and style. Adequate time and space should be provided to ensure comprehensive participation of every child in all types of different activities.
- Active participation of children is important in constructing knowledge. A wide variety and range of child centred meaningful learning opportunities should be provided. These activities should include - hands-on-activities, project work, visits to nearby public places in the early grades and gradually to places of historical significance, museums and archives, observatories, planetariums, etc.
- Knowledge, understanding, skills and attitude development can be achieved by a variety of ways and means, such as communication, discussion, experimentation, research, inquiry, innovation, interview, survey, project work, audio-video clips, prints and digital media.
- Assessment should be used as a part of the teaching learning process and also as a diagnostic tool to improve understanding of concepts.
- A comprehensive profile of each child should be maintained to ensure addressing the timely coverage of learning gaps and also knowing the progress of each child over a period of time.
- Primary skills related to social studies are related to maps and globes. Children should be encouraged to understand the concept of directions, use of symbols and scale, location and interpretation of maps using maps and globe age appropriately.
- Interpersonal and life skills such as respecting others' point of view, accepting responsibility, dealing with conflict, development of leadership qualities during the organising of various classroom and outdoor activities needs to be focussed on in an infused manner.
- Time skills can be developed by drawing a time line and sequencing events, using a calendar and understanding of national and international time zones.

It is expected that through the teaching learning process in Social Studies certain important skills will be developed which are mentioned as under:

Broad Skills/Processes for Social Studies Learning

Observation and reporting- Observing, exploring, comparing, discussing and reporting, expressing and drawing.

Discussion and debate- Brainstorming, expressing, discussing good and bad effects, listening and appreciating varied opinions, synthesising ideas and information.

Analysing and critical thinking- Defining situations/events, identifies and predicts possible causes, analyses results and consequences, compares and draws out the results.

Questioning and Reasoning- Demonstrating curiosity, logical understanding of facts and raising critical questions.

Communication- Listening, expressing, articulating thoughts and ideas, writing.

Classification- Identifies similarities and dissimilarities, sorts/groups with reason and understanding.

Appreciation- Showing respect towards others' opinions, ideas, beliefs and ways of life.

Broad Skills/Processes for Social Studies Learning

Map and Globe skills- Understanding the concept of direction, using signs, symbols and keys and interpreting various types of maps.

Time skills- Sequencing events, observing a calendar and marking important dates on it, constructing timelines and marking important dates on it, marking and understanding AD and BC on it.

Citizenship skills- Identifying rights and duties of citizens, appreciating and respecting the cultural aspects of various religions, languages, regional and ethnic groups.

Media and ICT literacy- Understanding the construction and interpretation of media messages and using ICT for presentation of data.

Leadership and Responsibility-Using interpersonal skills, taking on responsibility for completion of tasks.

The Core concepts of Social Studies for Classes III-V are dealt with as under:

Class III

Understanding Changes

Community-
Helping Each Other

Safety Rules

India- Land of Rich
Heritage

The Earth- An
Introduction

The Environment-
An Introduction

Class IV

The Story of the
Past

Almanac

Responsibilities of
a Good Citizen

The Earth-Its
Movements &
Forms

Our State

India-Unity in
Diversity

Pollution- Its
impact on the
Environment

Class V

Evolution of
Mankind

The Constitution of
India: Basic
Features

The Earth-Its
Geographical
Features

India- A Diverse
Country

The Environment-
Major Concerns

Solids, Liquids and
Gases

Our Natural
Resources

For each of the themes highlighted above for Classes III, IV and V, the sections that follow detail out Class-wise and theme wise learning outcomes transactional processes and learning resources to facilitate quality teaching-learning in classrooms.

Theme 1: Understanding Changes

“Understanding Changes” involves children to accept changes taking place over a period of time in their own families, in local life styles and conditions. These have been supplemented with anecdotes about famous personalities and importance of National days and celebrations. Children will relate to sequencing of events, calendar, drawing a time - line and concept of AD and BC. It is expected that by understanding variations, differences and changes in society children will appreciate and adapt to changes in their life.

Learning Outcomes:

Children will be able to:

- ☑ identify and compare - Nuclear, Joint and Single Parent Families;
- ☑ share and reflect on changes in family, neighbourhood and environment;
- ☑ discuss and compare changes in lifestyle, food, shelter, clothing, transport and entertainment;
- ☑ reflect positively and verbally on gender related issues;
- ☑ draw a timeline to depict the birthdates of family members;
- ☑ discuss and list important holidays and festivals.

Understanding Changes

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Changes in a Family</p> <ul style="list-style-type: none"> ☛ Joint Families ☛ Nuclear families ☛ Working parents ☛ Birth of a sibling ☛ Marriage in the family 	<ul style="list-style-type: none"> ➤ Revisiting earlier concepts and building on previous learning. ➤ Showing video clips of family types, followed by classroom discussions on the different types of families and their lifestyles. ➤ Facilitating group discussions with children on changes within families. ➤ Arranging visits to each other’s homes to understand different family lifestyles (working parents, single parents and homemakers). ➤ Drawing a family tree of two and three generations, pasting pictures of family members, writing names and date of birth of family members. ➤ Discussing with elders and peer group. 	<ul style="list-style-type: none"> ➤ Children’s’ daily life experiences. ➤ Videos. ➤ Pictures of present and past dresses, means of transport and other objects that relate to the lifestyle of families. ➤ Audio visual aids. ➤ Newspaper cuttings on changes and displacement. ➤ Materials required to draw and paint a family tree and family pictures.
<p>➤ Changes in neighbourhood and school</p> <ul style="list-style-type: none"> ☛ Changes in lifestyle, food, work, clothes, houses and traditions, etc. ☛ Reasons for changes, changing school, 	<ul style="list-style-type: none"> ➤ Encouraging class discussions to enable children share their experiences of shifting to new places/ homes and changing of schools. ➤ Showing pictures or documentaries on different lifestyles, food, clothes, traditions, etc. ➤ Appreciating the diversity observed in 	<ul style="list-style-type: none"> ➤ Newspaper cuttings, documentaries and pictures of different types of houses, clothes, food, etc. ➤ Elders, local community members and neighbours.

Understanding Changes

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
classroom, etc. ➤ Making new friends ➤ Adapting to change	various changes children have experienced and shared. ➤ Discussing with elders and neighbours ➤ Organising a change for children in school by making them sit in another classroom situation and then asking them to share their thoughts about the changes they experienced.	
➤ Changes in the Transport system	➤ Showing videos and PPTs on changes in transportation /modes of transport down the ages. ➤ Engaging children in class discussions on the benefits of walking and cycling for good health and how motorized transport causes air pollution. ➤ Organising visit to a rail museum, bus stand, railway station, etc.	➤ PPTs, videos, pictures, magazines, etc. ➤ Rail museum, bus stand, railway station.
➤ Gender sensitivity related to work and play	➤ Guiding children to enact role plays in class to enable them understand that gender is not a barrier for any occupation. ➤ Showing videos of women participating in modern day sports and employed in various professions. ➤ Organizing street play on gender parity, and discouraging the use of motorised vehicles, instead using cycles for shorter distances.	➤ Motivational pictures, newspaper clippings. ➤ Audio-visual aids
➤ Concept of Time: Sequence of events taking place over a period of time ➤ Tracing one's own timeline ➤ Tracing the date of birth of family members on a timeline	➤ Guiding children through a simple story sequencing activity to enable them to understand the concept of chronology of events. ➤ Helping children to paste their own pictures in a book/album from infancy to the present class. ➤ Helping children to design a chart with pictures and ages and dates of birth of their family members. ➤ Discussing with elders in the family and with peer group	➤ Materials required to draw a timeline. ➤ Chart papers, albums, children' photographs.

Understanding Changes

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Calendar</p> <ul style="list-style-type: none"> ➤ Identifying and marking important events <ul style="list-style-type: none"> (a) Family events (b) National events (c) School events 	<ul style="list-style-type: none"> ➤ Sharing celebration of family events by children with peers in the class. ➤ Celebrating national days and festivals in class or school. ➤ Organizing activities to share photographs of family events (i.e., birthday, marriage etc.) ➤ Drawing/ pasting or making a collage of pictures of various festivals and national days by children in groups/individually. ➤ Celebrating national days and social festivals in schools. 	<ul style="list-style-type: none"> ➤ Documentaries on famous personalities involved in the Freedom Movement. ➤ Calendar/school calendar. ➤ Pictures, videos, magazines relating to national, family and school events.

Integration: Languages, Mathematics (Measurement), Science, Arts Education

Life Skills: Respect, empathy, sensitivity, compassion, adaptability to changes and appreciation for diversity and life, time management



Theme 2: Community: Helping Each Other

This theme will enable children to understand and appreciate the interdependence in community life and identify value and respect the role each citizen plays in their day to day lives. It will also sensitize children in developing and showing empathy towards one another and being a proactive citizen whose contribution will benefit society at large.

Learning Outcomes:

Children will be able to:

- ☑ identify and appreciate different people in community who help us and show respect towards them;
- ☑ discuss and acknowledge the interdependence between people in society for various services;
- ☑ value and show respect for different types of work;
- ☑ display sensitivity, care and concern towards the old, sick, needy and differently abled persons.

Community: Helping Each Other		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Community helpers e.g., Soldiers, Farmers, Teachers, Doctors, Policemen, Fire fighters and what they do. ➤ Care of and compassion for the old, sick, needy and differently abled people in the community. ➤ Value and respect for work and dignity of labour. 	<ul style="list-style-type: none"> ➤ Revisiting previous concepts from Classes I to II in EVS. ➤ Building on previous learning. ➤ Showing videos on the contribution of community helpers in our daily lives. ➤ Discussing the interdependence in community life. ➤ Sensitising children to help the old, sick and the needy people. ➤ Discussing who the differently abled people are and ways of helping them. ➤ Discussing and sensitising children on values and principles and show respect for all kinds of work and labour. ➤ Designing thank-you cards for the support staff in school and for domestic workers at home and giving it to them at an appropriate time. ➤ Planning and conducting an assembly by children on labour day and honouring the support staff. ➤ Conducting a ‘Cleanliness Drive’ to clean the surroundings. ➤ Sharing and giving gifts i.e. utility items to the support staff on festivals/ special events. ➤ Role play of a school student and a rag picker child to inculcate a sense of empathy. 	<ul style="list-style-type: none"> ➤ Materials required for making Thank-you Cards ➤ Assembly as an important event. ➤ Related Videos and PPTs. ➤ Pictures of different Community helpers such as- police, farmer, soldier, doctor, nurse, teacher, fire fighters amongst others. ➤ Pictures of the differently abled. ➤ Toys for learning.

Integration: Languages

Life Skills: Empathy, sensitivity, compassion

Theme 3: Safety Rules

Safety rules will focus on helping children understand the need and ways to remain safe at home, in school or on the road. The theme will enable children to obey signs and rules on the road and to be cautious at home and in school. Understanding of a good or a bad touch will help them to be aware of safety threats from people in their surroundings.

Learning Outcomes:

Children will be able to:

- ☑ discuss the need for observing rules on safety at home, in school and on the road;
- ☑ demonstrate safe ways of using different objects;
- ☑ explain the need of safe use of ICT and multimedia;
- ☑ identify and obey the signs and rules of road safety;
- ☑ share experiences on bullying by the peer group and learn interpersonal and intra personal skills;
- ☑ identify and differentiate between a good touch and bad touch.

Safety Rules		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Safety at home: <ul style="list-style-type: none"> ☛ Kitchen appliances, Knives, Blades, Irons, Inflammable objects, etc. ☛ Toilet cleaners ☛ Electronic gadgets ☛ ICT: mobiles, tablets, computers and the Internet ▷ Safety at School: <ul style="list-style-type: none"> ☛ Safety in the classroom, laboratories, playgrounds, staircases. ▷ Safety on the Roads: <ul style="list-style-type: none"> ☛ Rules while crossing the road – walking, cycling etc. ☛ Traffic symbols – basic understanding ▷ First aid ▷ Emergency numbers ▷ Good or bad touch 	<ul style="list-style-type: none"> ▷ Demonstrating safe ways of using different objects / items. ▷ Encouraging children to share their own experiences with peers. ▷ Discussing the need to use gadgets and appliances safely and under supervision. ▷ Facilitating a class discussion on the safe use of internet under adult supervision. ▷ Showing a video that highlights bullying to sensitise children in schools. ▷ Motivating children to sign a pledge against bullying in school. ▷ Sensitising children through open discussions on how to differentiate between a good or bad touch. ▷ Demonstrating safe traffic rules through class trips or showing of videos or a mock road drill in class. ▷ Discussing on do's and don'ts related to safety rules ▷ Discussing simple first aid measures that can be used at home. ▷ <i>Organising Activities:</i> <ul style="list-style-type: none"> ☛ Children will design a traffic signal cut out and write a poem or song 	<ul style="list-style-type: none"> ▷ Drawings of traffic symbols and signals. ▷ Social awareness campaigns. ▷ Audio visual aids related to the theme. ▷ Poems/Songs/Slogans on safety rules.

Safety Rules

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<p>or slogan</p> <ul style="list-style-type: none">• Encourage children to write poems on safety• Making a chart of dos and don'ts and putting it on wall magazine• Making a first aid kit• Noting down emergency numbers in school diary• Preparing a chart, depicting emergency numbers. For e.g., 101, 102, 103, etc.; along with description and putting it on the classroom wall	

Integration: Computer Studies, Languages

Life Skills: Self-awareness



Theme 4: India- A Land of Rich Heritage

Our Heritage familiarizes and inculcates a sense of respect among children for the country's rich national, historical and cultural heritage. In these days of globalized lifestyles, this understanding is critical for children to be good future Indian citizens. The pedagogies help children become sensitive and proactive citizens who take pride and respect their rich cultural heritage.

Learning Outcomes:

Children will be able to:

- ✔ enlist important local and national festivals; epics and folk tales; and national symbols;
- ✔ appreciate the rich and glorious art and architecture of our country;
- ✔ expresses verbally or in writing the feeling of pride regarding the rich heritage;
- ✔ outline the accomplishments of great national leaders;
- ✔ appreciate the diverse traditions, festivals and celebrations.

India- A Land of Rich Heritage		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ✔ Meaning and understanding of Heritage. ✔ Buildings and monuments. ✔ Great National leaders and their achievements. ✔ Epics and folk tales, e.g. Panchatantra and Jataka tales ✔ National symbols. ✔ Festivals and community celebrations, etc. 	<ul style="list-style-type: none"> ✔ Organising presentation of PPTs, videos and pictures, etc. on the rich heritage of our country. ✔ Asking children to collect pictures of historical buildings, monuments, national symbols, festivals, etc. and make a collage. ✔ Celebrating national and cultural festivals in the school and organizing discussions on them with children. ✔ Discussion on books like the Ramayana, Mahabharata, Panchatantra and Jataka Tales in class. ✔ Exchanging photos and videos of festival celebrations by children. ✔ Enacting role play on some of our important national leaders – showing their achievements. ✔ Showing documentaries / videos of monuments and historical sites. ✔ Organising trips and visits to historical sites, monuments and national festivals and cultural events ✔ <u>Organising Activities like:</u> <ul style="list-style-type: none"> ✔ Reading of Panchatantra. ✔ Reading of Amar Chitra Katha. ✔ Showing videos of Teejan Bhai. ✔ Puppet shows based on folk tales. ✔ Storytelling by Grandparents. 	<ul style="list-style-type: none"> ✔ Videos, PPTs, pictures on heritage. ✔ Materials for wall magazine. ✔ Charts on historical buildings and monuments, national symbols and festivals. ✔ Folk lores ✔ Puppet shows. ✔ Role playing. ✔ Books and magazines.

Integration: Languages

Life Skills: respect, empathy, sensitivity, compassion

Theme 5: The Earth – An Introduction

'The Earth - An Introduction' has been introduced to make children understand that the earth is a celestial body and an important part of the Solar System. A comparative study of the earth and other planets will enable them to understand the uniqueness of the Earth. Children will also familiarise themselves about a Globe and maps.

Learning Outcomes:

Children will be able to:

- ☑ list out the planets in the Solar System;
- ☑ explain the uniqueness of the earth in the solar system;
- ☑ compare and identify Physical and Political maps;
- ☑ differentiate between a globe and a map and develop skills for their use.

The Earth – An Introduction		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ The Earth and the Solar System <ul style="list-style-type: none"> ☛ The Sun and the solar system ☛ The planets ☛ The satellites ☛ The stars ➤ Our Earth – A Unique Planet <ul style="list-style-type: none"> ☛ Our Planet: The Earth (presence of air, water, distance from sun) ☛ Shape of the Earth ➤ Knowing our Earth <ul style="list-style-type: none"> ☛ Globes and Maps ☛ Directions and Compass 	<ul style="list-style-type: none"> ➤ Facilitating a class activity to make a model of the Solar system (charts/models/ power point presentations). An interclass exhibition can also be planned. ➤ Explaining that a globe is a 3D model of the earth. ➤ Explaining that a map is a 2D presentation of the earth. Which may be used to represent parts of the earth. ➤ Facilitating discussions on the features of globes and maps. ➤ Comparing and enlisting the uses of a map and the globe. ➤ Visit to a Planetarium followed by discussions on the Solar System. 	<ul style="list-style-type: none"> ➤ Audio-Visual aids. ➤ PPTs. ➤ Wall map of the world. ➤ Charts and /or models. ➤ Globe and maps to be displayed in the class. ➤ Digital Globe e.g. Google Earth.

Integration: Mathematics (Geometry-map reading), Arts Education.

Theme 6: The Environment – An Introduction

'The Environment - An Introduction' aims at enabling children to appreciate their immediate surroundings and the importance of hygiene and cleanliness. It will help them identify the causes and effects of all types of pollution. Children are future global citizens and must be encouraged to play an active role to strive for a clean environment.

Learning Outcomes:

Children will be able to:

- ☑ identify and reflect on the causes of pollution, i.e., air, water, noise;
- ☑ reflect positively on the necessity of a clean environment;
- ☑ take initiative in tree plantation;
- ☑ inculcate healthy habits related to environment.

The Environment – An Introduction

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Environment – meaning. ➤ Pollution (introduction). ➤ Types of pollution (air, water, noise) ➤ Plantation to save the environment (case study). ➤ Need for cleanliness in the surroundings. 	<ul style="list-style-type: none"> ➤ Facilitating a class discussion on the importance of cleanliness. ➤ Sensitising children through a video/narrative on the life of rag pickers and discuss related issues in the classroom. ➤ Showing a video and newspaper clippings to sensitize on the pollution caused by cars and factories –to be followed by the children penning down or drawing their thoughts and reflections. ➤ Organising a class demonstration of how loud horns or loud music can be disturbing. This can be followed by a class discussion on the effects of noise pollution. ➤ Providing opportunities to observe stagnant water pools to understand the importance of cleanliness and hygiene. Discussing how cleanliness in the surroundings can be undertaken. Discussing the Chipko movement and the Van Mahotsav festival to enable children to understand the importance of green belts. 	<ul style="list-style-type: none"> ➤ Collecting information and pictures on popular plantation and anti-pollution campaigns /movements and cleanliness drives. ➤ Materials used for cleaning. ➤ Relevant videos and newspaper clippings. ➤ Plant Saplings.

The Environment – An Introduction

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<p><u>Organising Activities</u></p> <ul style="list-style-type: none">Organising a school cleanliness drive by involving all the children and assigning responsibilities to each one.Tree Plantation Drive - Organising a plantation drive in school or local community with help from respected community members.	

Integration: Science (Human Body-Respiration, Food we get from plants, Water as a Resource, Cleanliness, Health and Hygiene)

Life Skills: Concern for the Environment



Theme 1: The Story of the Past

"Story of the Past and Evidences in History" enables children understand the impact of past events in today's context. They learn to appreciate the rich heritage and traditions based on historical facts and evidences. Interesting pedagogies can be employed to familiarize them with the work of both historians and archaeologists.

Learning Outcomes:

Children will be able to:

- ☑ discuss the role and significance of historical events in today's context;
- ☑ reflect orally and in writing on historical events;
- ☑ differentiate between ancient, medieval and modern periods of history;
- ☑ differentiate between archaeological and literary sources;
- ☑ discuss the importance of preservation of sources to know history;
- ☑ differentiate between the job of a historian and an archaeologist.

The Story of the Past and Evidences in History

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<p>➤ Story of the Past – History</p> <ul style="list-style-type: none"> ☛ The need to study History ☛ Need to compartmentalise History into Ancient, Medieval and Modern periods. <p>➤ Evidences in History – Sources of history</p> <ul style="list-style-type: none"> ☛ Archaeological sources. ☛ Literary sources: Books and paper records. ☛ Need to preserve sources, job of a historian and of an archaeologist. 	<ul style="list-style-type: none"> ➤ Explaining what history is and asking children to relate their own past experiences and reflect on how it has influenced them today. ➤ Organising a discussion on the significance of learning history. ➤ Asking children to have interactive sessions with their grandparents to share their past experiences. Then, encouraging children to talk about their family history. ➤ Discussing the needs and various ways of compartmentalising history by historians to facilitate the learning of the topics. ➤ Showing videos of manuscripts and archaeological sources. ➤ Discussing the importance of maintaining records in terms of their notebooks, the class attendance registers and school display boards. ➤ Encouraging children to talk to their elders about carefully preserving family records and important documents. ➤ Organising trips to local monuments, historical places or a museum. ➤ Showing a video about how an 	<ul style="list-style-type: none"> ➤ Pictures and documentaries of early man. ➤ Clay Tablets and stick to write with ➤ Videos on archaeological sites and remains of past ➤ Old newspaper for paper-machine. ➤ Flashcards, pictures and charts depicting buildings and monuments. ➤ Collection of old coins. ➤ Collection of stamps. ➤ <i>Amar Chitra</i> Katha.

The Story of the Past and Evidences in History

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<p>archaeologist gathers information through archaeological sites and remains.</p> <ul style="list-style-type: none"> ➤ Facilitating role play to differentiate between what a historian and an archaeologist does. ➤ Displaying and studying of old coins. ➤ Displaying and studying of old and new stamps. <p><i>Organising and Providing opportunities for:</i></p> <ul style="list-style-type: none"> ☛ Writing on a clay tablet/ mud ☛ Making handmade paper through paper machine, and preparing a manuscript ☛ Matching game of pictures and names of monuments ☛ Coin rubbing and taking impressions of it on the paper 	

Integration: Languages

Life Skills: Care and appreciation of Cultural Heritage



Theme 2: Almanac

'Almanac' highlights the importance, significance and types of calendars. Sequencing of events and marking important dates on the time line will further enrich children with an understanding of the past.

Learning Outcomes:

Children will be able to:

- ☑ differentiate between the Gregorian and Saka calendars;
- ☑ draw a timeline and mark AD (CE) and BC (BCE) on it;
- ☑ design a calendar on the basis of their understanding of the rules;
- ☑ sequence events and mark them on a timeline;
- ☑ identify and mark important dates on the school calendar.

Almanac		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Gregorian calendar. ➤ Saka calendar. ➤ Time-line (A.D. and B.C.). ➤ Use of C.E. and B.C.E. 	<ul style="list-style-type: none"> ➤ Showing a calendar and asking children to mark specific events / important days on it. ➤ Helping children to mark the birthdays of class mates with the help of a collage / poster. ➤ Providing a brief and basic introduction to the Gregorian and Saka calendars. ➤ Discussing and highlighting the differences between the Gregorian and Saka calendars. ➤ Explaining the use of the terms AD and BC and the newer terminology CE and BCE on calendars and presenting it through a timeline. Creating futuristic calendar ➤ Drawing pictures / writing articles / poems etc. ➤ Writing narratives. <p><u>Providing opportunities for:</u></p> <ul style="list-style-type: none"> ☛ Enabling children to design, use their knowledge and innovation and create a futuristic calendar. ☛ Giving them a situation to observe a day without a calendar or clock and writing their own narratives. ☛ Designing a board game: Observing one day for causes such as Respect, Honesty, Praise, Compassion ☛ Designing a calendar and marking days and events of their choice on them. ☛ Drawing pictures or writing articles, poems about important national days or events in that months 	<ul style="list-style-type: none"> ➤ Calendars –present day calendars, Saka calendar, school calendar. ➤ Charts. ➤ Flash Cards. ➤ Board games.

Integration: Mathematics (Measurement)

Theme 3: Responsibilities of a Good Citizen

'Responsibilities of a good citizen' is crucial as it aims to make children understand the importance of civic sense and their responsibilities as a citizen of India. In an urban society that also reflects a sense of alienation, children must be taught how to develop a sense of unity and belongingness in a community. Varied interesting pedagogies enable them to observe and understand how these concepts play out in the world around us.

Learning Outcomes:

Children will be able to:

- ☑ discuss the term civic sense, and appreciate its significance;
- ☑ describe and reflect on the term citizen;
- ☑ demonstrate respect towards public and private property;
- ☑ suggest measures for proper upkeep of public property;
- ☑ initiate responsibilities for solving issues in school and in neighbourhood.

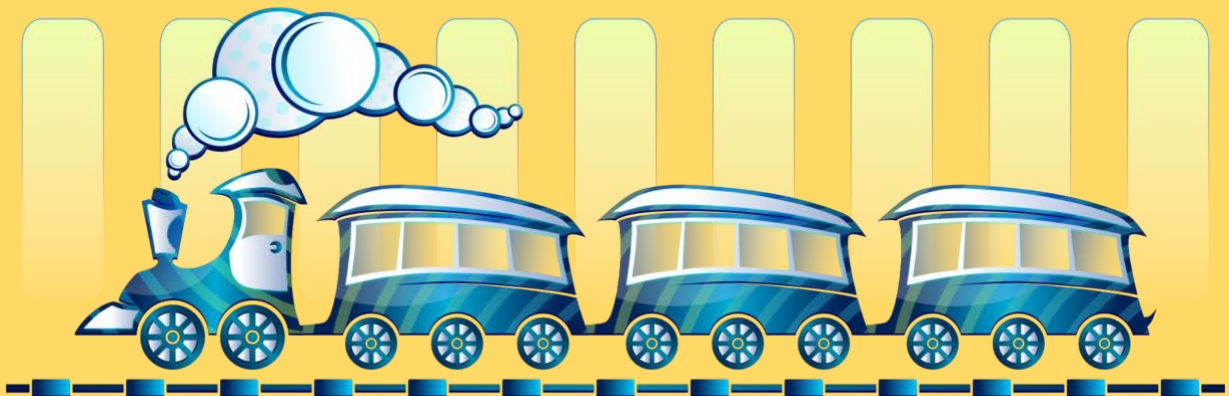
Responsibilities of a Good Citizen

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Introduction to Civics <ul style="list-style-type: none"> ☛ Definition of: Civics, Civic sense, Citizen. ☛ Importance of being a good neighbour and a good citizen. ▷ Responsibilities of a good citizen: <ul style="list-style-type: none"> ☛ Participation in elections. ☛ Caring for public and private place for example – schools, hospitals. Public transport, historical monuments, places of worship, parks, etc. 	<ul style="list-style-type: none"> ▷ Encouraging the sharing of experiences by children on studying together and helping one another. ▷ Facilitating classroom discussions on the meaning and maintaining of civic sense. ▷ Motivating children to adopt good civic habits in their daily lives. ▷ Analysing the need for caring for public property through classroom participation. ▷ Motivating children to create community awareness on cleanliness/road safety/value for work/ care for public property. ▷ Conducting group discussions in the classroom on the qualities of and expectations from a class representative or a prefect to make children understand their responsibility. ▷ Conducting class elections to choose a class monitor or a prefect. ▷ Report writing on the class elections. ▷ Encouraging children to research and gather information on the recent elections in their state, through newspapers and digital media. 	<ul style="list-style-type: none"> ▷ Community awareness programs. ▷ Print (newspapers, books...) and digital media. ▷ Flash cards. ▷ Coloured sheets for activities. ▷ Slogan writing. ▷ Role play.

Responsibilities of a Good Citizen

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<p><u>Providing opportunities for Activity</u></p> <ul style="list-style-type: none"> • Dividing the class into groups and giving them situations related to civic sense and good citizenship and having a discussion on what is civic sense and good citizenship. • Facilitating the preparation and presentation through street play/ slogan writing / skit / puppet show, etc. • Slogan making and designing a logo with mission and campaigning for the class election 	

Life Skills: *Developing good citizenship skills*



Theme 4: The Earth – Its Movements & Forms

'The Earth- Its Movement and Forms' enables children to understand the concept of movements of the earth. It aims to generate awareness about the four realms of the earth i.e. lithosphere, hydrosphere, atmosphere and biosphere. It will also enable them to identify and mark the major land forms of the Earth on an outline map of the world. Scale and cardinal directions will be introduced which will enhance their mapping skill.

Learning Outcomes:

Children will be able to:

- identify axis, rotation and revolution of the earth;
- explain causes of day and night and seasons;
- differentiate the four domains of the earth;
- identify major landforms and water bodies;
- locate oceans and continents on the map;
- differentiate between physical and political maps;
- use signs and symbols on the map;
- identify the purpose of using different colour schemes on the map;
- use scale and directions in mapping.

The Earth – Its Movements & Forms		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Motions of the Earth: <ul style="list-style-type: none"> ☛ Concept of Axis ☛ Rotation – Day and night ☛ Revolution - Seasons ▷ The Four Domains of the Earth: <ul style="list-style-type: none"> ☛ Lithosphere ☛ Hydrosphere ☛ Atmosphere ☛ Biosphere ▷ Major Land Forms: <ul style="list-style-type: none"> ☛ Mountains, Plateaus and Plains, deserts ☛ Continents and oceans ☛ Water bodies: oceans, seas, lakes and rivers ▷ Types and elements of Maps: <ul style="list-style-type: none"> ☛ Types of maps (physical, political) ☛ Scale ☛ Sign and symbols; Use of colours. 	<ul style="list-style-type: none"> ▷ Using a globe and torch to explain the rotation of the earth, day and night. ▷ Showing a video or diagrams to explain revolution. ▷ Discussing the four domains of earth using globe/model or PPTs with children. ▷ Explaining the difference between physical and political maps. ▷ Providing children maps to undertake mapping of landforms and water bodies. ▷ Marking and identifying continents and oceans on an outline map of the world. ▷ Discussing the utility and use of the scale on the map. ▷ Showing the use of different colours on a physical map of the world and explaining the purpose of their use. ▷ Taking children to an open area in the morning and helping them understand the directions facing the rising sun. ▷ Conducting class quizzes and providing worksheets to children to complete. <p><u>Providing opportunities for:</u></p> <ul style="list-style-type: none"> ☛ Making of models or charts to be made to depict the four domains ☛ Writing poems and organising activities on right and left and east, west, north and south directions. 	<ul style="list-style-type: none"> ▷ Globe ▷ Torch ▷ Videos/PPTs ▷ Maps ▷ Poems ▷ Hands -on activities ▷ Class quizzes

Integration: Science (Air, Light), Arts Education

Theme 5: Our State

'Our State' familiarizes children with the geographical features and climate of the state in which they live. It helps them identify the agricultural practices and major crops of the state. Children may be able relate to their own area with other parts of the state.

Learning outcomes:

Children will be able to:

- ☑ locate the state they live in on the map of India;
- ☑ locate the capital, important cities, landforms and rivers on the state map;
- ☑ learn about the climate (seasons), vegetation and agricultural crops;
- ☑ appreciate the cultural heritage of the state they live in.

Our State		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Location of States on the map of India. ➤ Neighbouring States/water bodies. ➤ State and its capital. ➤ Important cities. ➤ Land forms and rivers. ➤ Climate ➤ Vegetation ➤ Agriculture- Types of crops. 	<ul style="list-style-type: none"> ➤ Mapping the different states on the Map of India. ➤ Facilitating class discussions, showing videos or organising class trips to learn about the state capital. ➤ Identifying and naming the major landforms and rivers. ➤ Conducting quizzes on important features of the State. ➤ Showing videos and PPTs on the seasons, vegetation and crops-to be followed by a class discussion. ➤ Children discussing with elders and peer group on the important state festivals and in particular related to crops. ➤ Marking important rivers, mountains, hills, cities and the capital of the state on an outline map of the state by children individually. ➤ Assigning project work too small groups on the state (Writing a few simple lines about the state and attaching pictures). <p><u>Organising Activities</u></p> <ul style="list-style-type: none"> ➤ Local vegetables and samples of crops can be brought by the school or bought by children. Children can design name cards for them. ➤ Children can bring picture posts cards about the state and display these on the class bulletin board. ➤ Children can learn a traditional folk song or a folk dance and perform it in class. They can compose and set music to a song describing the state 	<ul style="list-style-type: none"> ➤ Map of India and the state (Physical and Political) ➤ Relevant videos and PPTs. ➤ Samples of crops and vegetables grown in the state. ➤ Videos /Audios on Folk songs and dances of the state. ➤ Information Brochures, cards and posters.

Integration: Languages, Science (Human Body-Food we eat, Adaptations in Animals/Plants)

Life Skills: Appreciate the Cultural Heritage

Theme 6: India – Unity in Diversity

India - Unity in Diversity familiarizes children with the diverse geographical features of the Indian subcontinent. They will be able to relate the geographical and socio-cultural features of the place in which they live with those of other parts of the country. Children would also understand and appreciate the similarities and differences in the lives of people living in different parts of the country.

Learning Outcomes:

Children will be able to:

- ☑ identify the major physical divisions of India;
- ☑ locate major mountains, hills, rivers, plateaus on the map of India;
- ☑ identify similarities and differences in the lives of people in India;
- ☑ appreciate unity despite diversities in their country.

India – Unity in Diversity		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ India – Physical Divisions <ul style="list-style-type: none"> ☛ The Himalayas ☛ Northern Plains ☛ Peninsular plateau ➤ Major Rivers of India <ul style="list-style-type: none"> ☛ Perennial and non-perennial (Krishna, Kaveri, Mahanadi, Narmada, Indus, Ganges, Yamuna, Brahmaputra) ➤ People <ul style="list-style-type: none"> ☛ Population ☛ Language ☛ Festivals ☛ Food Habits ➤ Unity in Diversity 	<ul style="list-style-type: none"> ➤ Locating and marking major mountains, hills, rivers and plateaus on the map of India. ➤ Encouraging the sharing of experiences of children on their visits to mountains, plains, water bodies, deserts etc. ➤ Discussion on the life of people living in mountains, deserts, plains etc. ➤ Discussion on effects of physical features of a place on density of population. ➤ Organising group work/projects on: <ul style="list-style-type: none"> ☛ Preparing a chart on different festivals and food habits of people living at different places in India. ☛ Searching and enlisting different languages spoken at different places in India. ➤ Discussing with children the factors that unite us despite diversities. ➤ Organising games, quizzes and puzzles on different rivers, languages, festivals and food habits of people. ➤ Preparing a menu card of important food items of the different states in India. ➤ Encouraging children to develop collages, poems etc. on the festivals of India. ➤ Celebrating different festivals in the school. 	<ul style="list-style-type: none"> ➤ Map, Wall map and Globe) ➤ Games and puzzles ➤ Pictures and Videos of Different Festivals in India. ➤ Collection of Menus /Food items from different parts in India and food habits. ➤ Pictures of People from different states - their dress, and accessories etc. ➤ List of Important Mountains, Rivers, Languages spoken etc.

Integration: Languages, Arts Education

Life skills- respect, empathy, sensitivity, compassion

Theme 7: Pollution – Its Impact on the Environment

This theme aims at generating awareness and an understanding amongst children about the effect and impact of pollution on the environment. It will also emphasize the importance of potable water and its scarcity in different parts of the world and children will be made aware and sensitized to take initiatives to save water in their home and neighbourhood.

Learning Outcomes:

Children will be able to:

- ☑ discuss various causes of pollution in the surrounding/environment;
- ☑ enlist kinds of pollution (their causes and effects).
- ☑ identify the causes of pollution.
- ☑ enumerate the effects of pollution.
- ☑ sensitize the children about the importance of preventing pollution.
- ☑ suggest ways to reduce various kind of pollution.
- ☑ demonstrate sensitivity towards right methods of waste disposal.

Pollution – Its Impact on the Environment

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Pollution – meaning ➤ Causes, effects and prevention of pollution. ➤ Waste disposal (Conserving the environment, Reduce, Recycle and Reuse) ➤ Case studies of air, water and noise pollution. 	<ul style="list-style-type: none"> ➤ Organising group discussions on children’s own experiences on pollution. ➤ Showing videos about pollution followed by children sharing their views on the videos. ➤ Providing information on causes and effects of pollution. ➤ Encouraging children to discuss and analyse the information provided about causes of pollution and suggest methods to prevent pollution. ➤ Creating situations to discuss various methods for disposal of waste necessary for conservation of environment (Reduce, Recycle and Reuse) ➤ Assigning project work (groups/individually)to children on causes of pollution and action required on their part and that of others to improve the environment. ➤ Creating situations for children to creatively express their ideas about pollution and its effect by writing slogans, poems, stories and/or drawings/paintings etc. 	<ul style="list-style-type: none"> ➤ Classroom discussions. ➤ Narratives – experiences of teachers and children. ➤ Videos/PPTs ➤ Charts ➤ Project work ➤ Dustbins – for biodegradable and degradable waste ➤ Case studies

Pollution – Its Impact on the Environment

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none"> ➤ Collecting news /information on the theme and analysing/discussing them. ➤ Motivating and organising a case study on air, water and noise pollution. <p><i>Providing opportunities for activities:</i></p> <ul style="list-style-type: none"> ➤ Making of a group chart on the causes, effects and prevention of pollution ➤ Case study-water pollution in neighbourhood 	

Integration: Science (Air), Languages

Life Skills: Concern for the environment, care and concern for the resources



Theme 1: Evolution of Mankind

The theme "Evolution of Mankind" enables children to become aware and appreciate how man has evolved through the ages. It enables them to understand how constant evolution has made significant changes in the lifestyle of mankind. The pedagogies equip them with skills to make a comparative study of the different ages.

Learning Outcomes:

Children will be able to:

- ☑ identify the stages of the evolution of mankind;
- ☑ list the sources of evidence of man's evolution;
- ☑ identify, compare and contrast the features of the four stone ages;
- ☑ identify and reflect on the stages of evolution in modes and system of transport and communication;
- ☑ discuss and appreciate the developmental process of human life on earth.

Evolution of Mankind		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Evolution of mankind: <ul style="list-style-type: none"> ☛ Brief introduction of story of Human evolution on earth ☛ Sources/evidences (fossils, bones, utensils, cave paintings, tools, etc.) ➤ The four stone ages: <ul style="list-style-type: none"> ☛ Paleolithic ☛ Mesolithic ☛ Neolithic ☛ Chalcolithic ➤ Iron age ➤ Evolution of Transport and Communication: <ul style="list-style-type: none"> ☛ Invention of the wheel and beginning of transport. ☛ Reaching distant places. ☛ Trade and voyages. ☛ Modern means of transport. ☛ Need for writing. ☛ Use of pigeons ☛ Invention of telephone and telegraph ☛ Printing press, ☛ Computers ☛ Satellites 	<ul style="list-style-type: none"> ➤ Discussing and mind mapping to explain the sources of evidence to trace human evolution. ➤ Providing information about the four stone ages and the iron age through videos and PPTs followed by discussions. ➤ Collecting information using digital media on the evolution of mankind and on early archaeological sites in India. ➤ Arranging a visit to a museum and to an archaeological site followed by a class discussion. ➤ Comparing and contrasting means of transport through the ages ➤ Discussing and analysing how the evolution of transport and physical features of a place helped trade and commerce to flourish. ➤ Showing videos and/or displaying books about famous voyages. ➤ Discussing the evolution of communication and depicting this through a timeline (from pigeons to satellites). ➤ Making a Power Point Presentation on the four Stone age and Iron age. 	<ul style="list-style-type: none"> ➤ Collecting information from digital media. ➤ Videos and PPTs. ➤ Pictures and documentaries on early man. ➤ Clay Tablets and sticks to write with. ➤ Videos on archaeological sites. ➤ Old newspapers for making homemade paper. ➤ Flashcards, pictures and charts showing buildings and monuments. ➤ <i>Amar Chitra</i> Katha. ➤ Videos and books on famous voyages. ➤ Guest lecture

Evolution of Mankind

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none"> ➤ Organising Activity: <ul style="list-style-type: none"> ♥ Making a chart by groups of children to depict the sources of evidence to trace evolution of mankind. ➤ Role play: <ul style="list-style-type: none"> ♥ <i>On the life of early men.</i> ♥ <i>On Gulliver's Travel</i> ➤ Guest Lectures: <ul style="list-style-type: none"> ♥ <i>Inviting a historian and discuss – How do we trace history through archaeological sources?</i> ➤ Debate and discussion on the life before the invention of printing press. 	

Integration: Arts Education, Science, Languages

Life Skills: Sharing, working in groups, leadership.



Theme 2: The Constitution of India – Basic features

'The Constitution of India- Basic Features' familiarizes children with the Indian Constitution and the form of governance in the country. It aims in helping to develop in them a sense of responsibility and realize the importance exercising rights and duties as a citizen. It will also enable children understand the importance and the process of holding elections in a country.

Learning Outcomes:

Children will be able to:

- ☑ analyse the need and importance of a Constitution;
- ☑ identify and list the fundamental rights and duties as a good citizen;
- ☑ state the features of the Indian government;
- ☑ illustrate the stages of election;
- ☑ discuss the importance of choosing the right representative;
- ☑ describe the responsibilities of a citizen in a democratic polity.

The Constitution of India – Basic Features

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ The Indian Constitution (formation, nature, need, and guiding principles). ➤ Fundamental Rights and Duties. ➤ Basic features of the democratic form of government. ➤ Importance of Elections. ➤ Responsibilities of a citizen in a democratic polity. 	<ul style="list-style-type: none"> ➤ Showing the school almanac to explain the concept of the Constitution. ➤ Discussing and mind mapping to explain the nature, need, formation, and guiding principles of guiding constitution. ➤ Compiling a list of children's rights and duties in school and at home. This can be followed by giving them information on Fundamental Rights and Duties. ➤ Conducting a class debate on rights and duties to make children aware of the 'Fundamental Rights and Duties'. ➤ Facilitating a class discussion on the hierarchical structure in school to explain the structure of the Government of India. ➤ Acquiring knowledge through books, internet and encyclopaedias about the different types of government in the world. ➤ <u>Organising Activities</u> <ul style="list-style-type: none"> ➤ Asking children to read the school Almanac and conduct a debate/quiz on the rules followed in the school. 	<ul style="list-style-type: none"> ➤ Hands-on experiences. ➤ School Almanac. ➤ Class elections ➤ Drawing a chart ➤ Reference Books ➤ Internet ➤ Encyclopaedia ➤ Audio visual aids.

The Constitution of India – Basic Features

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none">• Draw a chart or make a power point presentation to show the structure of the Government of India.• Conducting a class election to let the children have a hands-on experience of the steps and importance of a free and fair election.	

Integration: Languages

Life Skills: Interpersonal skills, cooperation and leadership qualities



Theme 3: The Earth – Its Geographical Features

This theme will help children understand the importance of latitudes and longitudes to locate any place on the globe and map. Information on location and extent of Temperature zones of the earth will enable them to relate with their own region. In addition, they will understand what is climatic change and how this phenomenon plays out and affects the earth as a whole.

Learning Outcomes:

Children will be able to:

- ☑ discuss the terms- latitude and longitude;
- ☑ identify different places on the map with the help of latitude and longitude;
- ☑ explain the concept of the major temperature zones;
- ☑ differentiate between weather and climate;
- ☑ enlist the major temperature zones;
- ☑ identify climates and find out the reasons for climatic changes.

The Earth – Its Geographical Features

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Locating places on the Earth: <ul style="list-style-type: none"> ☛ Latitudes (introduction, characteristics, important latitudes). ☛ Longitudes (introduction, characteristics). ➤ Weather and Climate: <ul style="list-style-type: none"> ☛ Difference between the weather and climate. ☛ Factors that affect climate of a place. ➤ Solar and Lunar Eclipse ➤ Major temperature zones of the Earth: <ul style="list-style-type: none"> ☛ Torrid ☛ Temperature ☛ Frigid 	<ul style="list-style-type: none"> ➤ Using maps and the globe to understand and locate the important latitudes and longitudes. ➤ Explaining and facilitating children to find the difference in time zones. ➤ Studying the globe understanding and locating the three major temperature zones. ➤ Showing videos and /or diagrams to explain the temperature zones. ➤ Providing opportunities to children to share their personal experiences related to different weather and climates. ➤ Asking questions and facilitating discussion related to likes and dislikes about various weather conditions. ➤ Discussing on the factors that affect the climate of a place with examples. ➤ Discussing with diagrams the solar and lunar eclipses. ➤ Project work on the reasons that affect the climate of a place. ➤ Case study on the climate of a particular place. ➤ Collecting news clippings or TV reports on weather for a week and preparing a comprehensive report on it. ➤ Guest lecture by a specialist on making a weather forecast. 	<ul style="list-style-type: none"> ➤ Personal experiences of children. ➤ News clippings on weather report. ➤ Globe and maps, Digital globe ➤ Web sources ➤ Charts and posters, models, diagrams, etc. ➤ Newspaper clippings. ➤ Project work. ➤ Case studies. ➤ Guest lectures.

Theme 4: India – A Diverse Country

The theme will help children realise the strategic importance of the location of India in relation to neighbouring and other countries of the world. They will also appreciate the diversity of climate and the natural vegetation of India.

Learning outcomes:

Children will be able to:

- ☑ identify and locate India on the world map;
- ☑ locate neighbouring countries of India on the map;
- ☑ compare the size of India with neighbouring countries;
- ☑ relate climate to the different regions of the country;
- ☑ identify various types of vegetation found in India;
- ☑ relate and compare vegetation and climate in different parts of India;
- ☑ describe importance of vegetation and its conservation.

India – A Diverse Country		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ India: Location and extent ▷ India and its neighbouring countries. ▷ Climate of India (Different Seasons) <ul style="list-style-type: none"> ☛ Summer season ☛ Winter season ☛ Rainy (Monsoon) season ▷ Natural vegetation <ul style="list-style-type: none"> ☛ Tropical evergreen ☛ Deciduous (monsoon forest) ☛ Thorn and Scrub ☛ Montane forest 	<ul style="list-style-type: none"> ▷ Identifying and locating neighbouring countries of India on the World map. ▷ Comparing the size and extent of India with other countries. ▷ Discussing different types of climate in India and comparing the life of people living there. ▷ Discussing with reasons about the varied climatic conditions in different parts of the country. ▷ Preparing a project report by groups of children or individually on the climatic conditions of a place with reasons. ▷ Showing Videos and/ or PPTs on different types of natural vegetation in different geographical conditions in the country. ▷ Organising activities <ul style="list-style-type: none"> ☛ Making charts/posters on conservation of natural vegetation. ☛ Encouraging children to collect/write poems/songs on different seasons in India. ☛ Making charts or posters on different types of trees and plants. 	<ul style="list-style-type: none"> ▷ Personal experiences. ▷ Wall maps of the world, India – Political and Physical. ▷ Models and charts on different types of vegetation. ▷ Audio-visual materials and web sources. ▷ Poems and songs.

Integration: Science

Life Skills: Environmental conservation, empathy.

Theme 5: The Environment – Major Concerns

'The Environment - Major Concerns' aims at enabling children to understand the components of the environment and interdependence of people living in different regions of the world. Issues related to global warming and its effects and precautions related to natural disasters will also be dealt with to create an awareness on measures that need to be taken to reduce the adverse impact on the environment.

Learning Outcomes:

Children will be able to:

- ☑ identify the components of the environment;
- ☑ discuss critically the reasons for interdependence of people living in different parts of the world;
- ☑ explain reasons for ozone depletion;
- ☑ describe change in temperature due to global warming and its impacts;
- ☑ demonstrate rules to be followed to reduce pollution;
- ☑ discuss the precautions that need to be taken at the time of natural disasters.

The Environment – Major Concerns

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Components of the Environment (biotic and abiotic). ▷ Interdependence of and between different regions of the world. ▷ Impact of local events on global environment, global warming, ▷ Natural disasters: <ul style="list-style-type: none"> ☛ Earthquake, ☛ Cyclones, ☛ Floods, ☛ Droughts, ☛ Volcanic eruptions, ☛ Landslides ▷ Effects and Precautions of natural disasters. 	<ul style="list-style-type: none"> ▷ Showing PPTs/videos and encouraging discussions on the components of environment ▷ Discussions on how do people living in different regions depend on each other. ▷ Providing opportunities to enlist biotic and abiotic components of the environment. ▷ Creating situation to analyse various reasons for global warming. ▷ Showing videos and sensitising on harmful impacts of global warming ▷ Discussing precautions to be taken at the time of natural disasters. <p><u>Organising activities</u></p> <ul style="list-style-type: none"> ▷ Encouraging to prepare charts and writing slogans on global warming. ▷ Organising mock drills on natural disasters and related safety measures. ▷ Collecting newspaper clippings on natural disasters and writing report on it. ▷ Motivating children to take a pledge to plant trees and not burst crackers. ▷ Conducting cleanliness drive <p>▷ Role Play:</p> <ul style="list-style-type: none"> ☛ Performing Street plays to educate the mass about the effects of pollution 	<ul style="list-style-type: none"> ▷ Classroom discussions ▷ Narratives and life experiences. ▷ Newspapers, magazines, journals, charts, posters. ▷ Audio-visuals and web sources. ▷ Charts and Slogans. ▷ Mock drills. ▷ Role Play. ▷ Tree Plantation.

Integration: Languages

Life Skills- Awareness on Environmental concerns

Theme 6: Natural Resources

This theme focuses on making children aware about the judicious use of natural resources since they are limited and also concerns related to the utility and availability of these resources. It will help children in the optimum use of resources with alternatives. This understanding is vital in today's ever-growing need for these resources and conserving them for posterity.

Learning Outcomes:

Children will be able to:

- ☑ discuss and understand the term resources;
- ☑ compare and differentiate between renewable and non-renewable resources;
- ☑ identify and enlist the resources;
- ☑ discuss the use of resources in life;
- ☑ suggest ways to conserve resources.

Natural Resources		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Meaning of resources. ➤ Renewable and Non-Renewable resources. ➤ Renewable resources – (air, water, soil, plants, animals, solar energy and wind energy) – brief description. ➤ Non-Renewable resources – (Coal and Petroleum, Minerals) – brief description. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their experiences with peers and discuss about various aspects in the theme. ➤ Facilitating class discussion on the term resources and providing examples. ➤ Providing facilities to identify and enlist various resources they see around them. ➤ Providing opportunities in groups /individually to observe and discuss the differences between renewable and non-renewable resources. ➤ Assigning project work to children on causes and the importance /necessity to conserve our resources. ➤ Inviting experts to talk on the theme and discuss issues with children. ➤ Organising a role play session on life without petroleum resources. ➤ Writing poems on the benefits of Nature (the sun, water, soil, plants etc.) in enriching our lives. ➤ Exploring and enlisting ways to conserve different resources. 	<ul style="list-style-type: none"> ➤ Pictures, charts and models. ➤ PPTs and Videos. ➤ Guest Lecturers. ➤ Coal, petroleum, different minerals etc.

Integration: Languages

Life Skill: Conservation of natural resources

Theme 7: Major Occupations in India

Agriculture and industry are the two major occupations in India. This theme will help children understand the work, process and hardships related to these two occupations. They will also appreciate the hard work of people involved in providing us the finished products that enrich and facilitate our lives.

Learning Outcomes:

Children will be able to:

- ☑ differentiate between man-made and machine made products;
- ☑ enlist the large-scale industries in our country;
- ☑ differentiate between raw material and finished products;
- ☑ compare old and new methods of farming;
- ☑ discuss our dependence on industries in day-to-day life;
- ☑ appreciate the skills of persons involved in crafts.

Major Occupations in India		
Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Agriculture: <ul style="list-style-type: none"> ☛ Types of crops, Food Crop, cash crop, ☛ Development of agriculture, ☛ Livestock rearing (map work). ➤ Industries: <ul style="list-style-type: none"> ☛ Major industries in India. ☛ Large scale industries and small scale industries. ☛ Other industries. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children to share their personal observations on various forms of occupations. ➤ Facilitating class discussions to provide opportunities to children to ask questions and narrate experiences on agriculture being the main occupation in India. ➤ Discussing old and new methods of cultivation in agriculture. ➤ Facilitating work in small groups for children to observe and compare the difference between a raw and a finished product. ➤ Showing samples of cash crops and food crops and narrating differences between them. ➤ Visiting to a field and interaction with the farmer. ➤ Taking children to a field and interacting with a farmer on soil, crops methods and income through cultivation, issues and hardships faced by them ➤ Providing opportunities to observe, identify and classify man-made and machine made things. ➤ Discussing the role of industries in our life. ➤ Collecting news /information on 	<ul style="list-style-type: none"> ➤ Children's personal experiences. ➤ Samples of different crops. ➤ Collection of Raw and Finished products. ➤ Local Artisans /Farmers/People involved in other occupations.

Major Occupations in India

Key Concepts/Concerns	Suggested Transactional Processes	Suggested Learning Resources
	<p>major industries in India and analysing the same.</p> <ul style="list-style-type: none">➤ Taking children to local artisans or a crafts mela and organising their interaction / discussion with the crafts person.➤ Taking children to an industry and discussing the various processes in the industry.➤ Visiting to an industry, interaction with workers and observing various processes.➤ Visiting to local artisans or a crafts mela.	

Integration: Languages



*COMPUTER
STUDIES*

Computer Studies



Computer technology has become an essential part of our life. It is a diverse set of tools which is used to enhance the process of learning among the children. The curriculum has been designed in such a way that it is child centric and helps them to develop appropriate knowledge, skills and attitudes. It promotes the integration of technology into the teaching and learning process and provides children with opportunities to use modern technology. This enables the children to think both creatively and logically. The use of modern technology also equips children with necessary skills to learn different concepts in an enjoyable way and make learning fun. Over time it will also develop the ability to recognize situations in life where computers will be helpful by choose the most appropriate tool for a particular task and use these tools in various combinations to produce required outputs.

The major objectives of learning computer studies by children are to:

- ◆ acquire knowledge and skills of using technology to accomplish tasks, communicate and facilitate activities in and outside school.
- ◆ become competent, confident, responsible and critical users of technology.
- ◆ develop an awareness of how computer technology can be used optimally in the home, school, workplace and within the community.
- ◆ take ownership of their own learning.
- ◆ develop critical and analytical thinking skills for practical solutions.
- ◆ develop logical skills for problem solving.
- ◆ develop appropriate social skills that are essential for co-operative and collaborative learning.



The Core concepts of Computer Studies for Classes I-V are dealt with as under:

Class - I	Class - II	Class - III	Class - IV	Class - V
<p>Computer - A Machine</p> <p>Uses of a Computer</p> <p>Parts of a Computer</p> <p>Using Computers - Do's and Don'ts</p> <p>Computer Mouse</p> <p>Storage Devices</p>	<p>Computer - An Electronic Device</p> <p>Role of Computers</p> <p>Input and Output Devices</p> <p>Keyboard - Special Keys</p> <p>Mouse - an Input Device</p> <p>Introduction to Paint</p> <p>File Management- An Introduction</p>	<p>A Computer System</p> <p>GUI Operating System - An Introduction</p> <p>Word Processor - An Introduction</p> <p>The Internet - An Introduction</p> <p>Fun with Paint</p> <p>File Management -Organisation</p>	<p>Computers - Storage and Memory device</p> <p>GUI Operating System - Desktop Management</p> <p>Tools of Word Processor</p> <p>The Internet - Web Browser</p> <p>Presentation Software - An Introduction</p> <p>Step-wise Thinking</p> <p>Features of File Management</p>	<p>Evolution of Computers</p> <p>Types of Software</p> <p>Advanced features of Word Processor</p> <p>Presentation Software - Special effects</p> <p>An introduction to Scratch Programming</p> <p>Internet Services</p>

Topic 1: Computer - A Machine

A Computer is a machine made by humans that carries out computations and functions according to inputs/instructions given. Computers provide the opportunity to perform different functions like playing games/music, ticket reservation etc. Children develop an awareness on the art of computing as they learn about the different types of computers like desktop, laptop, etc. and their functions

Learning Outcomes:

Children will be able to:

- ☑ relate that a machine made by humans;
- ☑ infer that a computer is a machine;
- ☑ differentiate between a desktop and a laptop;
- ☑ list objects in their surroundings;
- ☑ classify objects into natural things and man-made things.

Computer - A Machine		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Human made and natural objects. ➤ Computer - a machine and its characteristics ➤ Types of computers 	<ul style="list-style-type: none"> ➤ Discussing the concept of machine and its characteristics. ➤ Demonstrating how a computer can perform different tasks. ➤ Demonstrating how a machine having many parts work together to perform tasks. ➤ Classifying objects into natural things and objects and those made by humans. ➤ Involving children in group discussions based on the places they have observed computers being operated. 	<ul style="list-style-type: none"> ➤ Natural and human made objects ➤ Flash cards depicting objects (man-made & natural) ➤ Animated programs and videos ➤ Videos/pictures of human made machines i.e. Juicer, mixer, ➤ Projector etc. ➤ Visit to the Computer laboratory to identify and observe laptops/Desktops

Integration: EVS, Languages



Topic 2: Uses of a Computer

Computers have multiple uses and have become an integral part of our daily lives. Computers can be used for various purposes such as- source of information, playing games, listening to music, preparing presentations and documents, storing data etc.

Learning Outcomes:

Children will be able to:

- ☑ identify places where computers are used;
- ☑ list the various uses of computers in daily life.

Uses of a Computer		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Uses of computers in daily lives:</p> <ul style="list-style-type: none"> ▷ typing a document. ▷ listening to music and playing games. ▷ using the Internet. ▷ sending e-mails. ▷ chatting with friends 	<ul style="list-style-type: none"> ▷ Sharing children's experiences related to computers. ▷ Encouraging children to identify / suggest places to visit where computers are used. ▷ Discussing the use of computers in their daily lives: 	<ul style="list-style-type: none"> ▷ Computer/ IWB with presentation software and internet facility ▷ Interactive White Board ▷ Classroom discussion on how to identify the uses of computers. ▷ Audio and video programmes. ▷ Trips to various places from school/home.

Integration: EVS, Languages

Life Skills: Self-awareness



Topic 3: Parts of a Computer

The main parts of a computer are the monitor, keyboard, mouse and central processing unit (CPU) that function together to perform a task. The keyboard/mouse is used for data input, CPU to process the data and monitor to display the output. Additional devices like printer, scanner, microphone, speaker etc. are used for specific purposes.

Learning Outcomes:

Children will be able to:

- ☑ recognise and identify the main parts of a computer;
- ☑ describe the functions of the main parts of a computer;
- ☑ list additional devices of the computer;
- ☑ illustrate the inter-connectivity of different parts of a computer.

Parts of a Computer		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Main parts of a computer-meaning and functions: (CPU keyboard, mouse, and monitor) ➤ Additional devices connected to a computer :(printer, scanner, speaker etc.). 	<ul style="list-style-type: none"> ➤ Helping children to identify the main parts of a computer ➤ Demonstrating the functions of the main parts through active class participation. ➤ Explaining the need for additional devices like printer, scanner, speaker etc. ➤ Involving children in role play activities to identify and state the functions of the main parts of the computer. 	<ul style="list-style-type: none"> ➤ Computer/ IWB with presentation software and internet facility ➤ Interactive class discussions. ➤ Animated programmes and videos. ➤ Projector. ➤ Flash card on parts of a computer

Life Skills: Awareness



Topic 4: Using Computers - Do's and Don'ts

A computer operates on electricity hence it entails certain safety precautions that must be undertaken to develop an awareness among children on the Do's and Don'ts while operating computers.

Learning Outcomes:

Children will be able to:

- ☑ maintain correct posture/ distance while using a computer;
- ☑ show ways of taking care of computers;
- ☑ practice safety rules while using a computer;
- ☑ develop habits of sharing computer resources.

Using Computers - Do's and Don'ts

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Guidelines while working on the computer: ▷ Do's <ul style="list-style-type: none"> ☛ <i>Keeping it neat and clean</i> ☛ <i>Using it gently.</i> ☛ <i>Maintaining the correct posture</i> ☛ <i>Being sensitive towards others.</i> ☛ <i>Taking turns while sharing the computer</i> ▷ Don'ts <ul style="list-style-type: none"> ☛ <i>Touch connecting cords/wires.</i> ☛ <i>bang the computer or its parts.</i> ☛ <i>Keep the volume high</i> ☛ <i>snatch the mouse/ keyboard from classmates.</i> 	<ul style="list-style-type: none"> ▷ Emphasising the need of Do's and Don'ts while working on a computer ▷ Sensitising children towards good practices of taking care of the computer and strictly following the Do's and Don'ts. ▷ Providing Hands-on experience by assigning the responsibility of ensuring proper closure of computers to children (turn by turn). ▷ Active discussion on the Do's and Don'ts. 	<ul style="list-style-type: none"> ▷ Computer/ IWB with presentation software and internet facility ▷ Flash cards on Do's and Don'ts. ▷ Interactive class resources ▷ Animated programs and videos ▷ Projector etc.

Life Skills: General Awareness, Collaborative learning



Topic 5: Computer Mouse

A computer mouse is a pointing device used to input data. There are two buttons namely the left and right buttons and a scroll wheel. A mouse pad must be used for a smooth functioning of a mouse.

Learning Outcomes:

Children will be able to:

- ☑ identify the buttons and the scroll wheel on a mouse;
- ☑ perform appropriate actions using the left/right buttons and scroll wheel;
- ☑ recognise the need for a mouse pad while using a mouse.

Computer Mouse		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">➤ Mouse buttons➤ Scroll wheel➤ Skills to be practiced while using a mouse	<ul style="list-style-type: none">➤ Showing children how to identify the left and right buttons along with the scroll wheel on the mouse.➤ Demonstrating the use of the scroll wheel, left and right click actions on a mouse.➤ Inculcating the habit to use the mouse pad while using a mouse.➤ Providing Hands- on experience through group activity of children using the different parts of the computer– mouse buttons, scroll wheel.	<ul style="list-style-type: none">➤ Computers/ IWB with presentation software and internet facility➤ Animated programs and videos, projector etc.➤ Flash cards

Skills: Fine motor skills



Topic 6: Computer Keyboard

A computer keyboard is an input device that consists of alphanumeric, numbers and special keys. It is primarily used to enter text.

Learning Outcomes:

Children will be able to:

- ☑ identify and locate alphanumeric and arrow keys on a keyboard;
- ☑ demonstrate the uses of different keys.

Computer Keyboard		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">▶ Alphanumeric keys: alphabet (a-z), number (0-9)▶ Arrow keys	<ul style="list-style-type: none">▶ Helping children to identify and locate keys i.e. alphabet (a-z), number (0-9) and arrow keys.▶ Providing hands on experience (individual/in groups of 4/6) through computer games to use keys on a keyboard	<ul style="list-style-type: none">▶ Computer/ IWB with presentation software and internet facility▶ Animated programmes and videos, projector etc.▶ Keyboard



Topic 7: Storage Devices

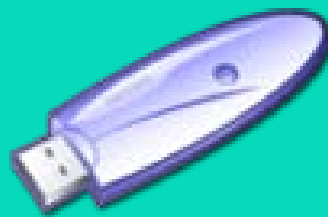
A storage device is a hardware that is used to store data and other information either temporarily or permanently.

Learning Outcomes:

Children will be able to:

- describe data in simple terms;
- identify storage devices and their usage.

Storage Devices		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
▶ Storage devices	<ul style="list-style-type: none">▶ Showing devices for storing data - pen drive, data card etc.▶ Organising activities to identify storage devices through visuals	<ul style="list-style-type: none">▶ Computer/ IWB with presentation software and internet facility.▶ Observation of various storage devices, such as CD, DVD, Pen drive, data card etc.



Topic 1: Computer – An Electronic Device

A computer is an electronic device that works on IPO cycle (Input-Process-Output). It is primarily used to input data, process it to produce the required final output.

Learning Outcomes:

Children will be able to:

- ☑ List out how computers are an electronic device;
- ☑ compare a human and a computer in their ways of working;
- ☑ list the advantages and disadvantages of using computer.

Computer – An Electronic Device

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Computer, an electronic device ➤ Functions / working of a computer ➤ Advantages (Speed, storage capacity, electronic presentation, automation, calculation, teaching, learning etc.) and disadvantages (impact on environment, health, virus attacks, computer /cybercrimes) of a computer 	<ul style="list-style-type: none"> ➤ Discussing how a computer is an electronic device which processes information based on given instructions. ➤ Explaining the working of computer and comparing it with the way humans work. ➤ Discussing the advantages and disadvantages of a computer. 	<ul style="list-style-type: none"> ➤ Computers/ IWB with presentation software and internet facility ➤ Videos/pictures to explain input, process and output. ➤ Posters/charts on healthy practices while working on the computer.

Integration: Languages, EVS

Life Skills: General awareness



Topic 2: Role of Computers

A computer is a multitasking device that performs various tasks. It plays a vital role in the learning and teaching process.

Learning Outcomes:

Children will be able to:

- ☑ recall the uses of computer;
- ☑ specify computer's integration in classroom activities;
- ☑ correlate computer use with topics they study in other subjects.

Role of Computers		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">➤ Role of computers in enhancing the learning and teaching process.➤ Impact of computers	<ul style="list-style-type: none">➤ Discussing and identifying uses of computers at various places i.e. classroom, office, home etc.➤ Interacting with and explaining to the children about the effectiveness of using computers in the classroom, office, home etc.	<ul style="list-style-type: none">➤ Computers/ IWB with internet facility➤ Animated stories, videos, etc.

Integration: EVS

Life Skills: General Awareness



Topic 3: Input and Output Devices

Input devices are used to enter text/data whereas output devices are used to display desired result. In some cases, output devices may function as storage devices. For example - CD, pen drive.

Learning Outcomes:

Children will be able to:

- ☑ identify the input and output devices;
- ☑ state the functions of each device.

Input and Output Devices		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Input and output devices and their functions ➤ Output devices as storage devices 	<ul style="list-style-type: none"> ➤ Identifying that keyboard and mouse are input devices whereas printer, monitor are output devices. ➤ Showing physically the input/output devices and explaining their functions. ➤ Explaining how certain output devices function as storage devices. Ex – CD, pen drives etc. ➤ Hands-on activity through worksheets, quiz etc., to identify input/output devices and their functions. ➤ Helping children in drawing of devices and naming them. ➤ Providing hands-on experience through group work (4/6 children in each group) working with one computer. Each child will explain the different devices and the functions to others in the team. 	<ul style="list-style-type: none"> ➤ Computer system along with other peripheral devices. ➤ Visuals/videos on Input and Output devices. ➤ Classroom discussions. ➤ Children's drawings on devices.

Life Skills: Technical awareness, handling/sharing resources



Topic 4: Keyboard – Special Keys

The keyboard has special keys to perform specific tasks, along with alphanumeric keys. Children will identify the uses of key combinations when using the keyboard.

Learning Outcomes:

Children will be able to:

- ☑ identify and use the special and punctuation keys;
- ☑ recall that certain keys are used in combinations;
- ☑ describe the functions of the different types of keys.

Keyboard – Special Keys

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Special keys and punctuation keys. ➤ Key combinations on a keyboard. 	<ul style="list-style-type: none"> ➤ Discussing uses of alphanumeric keys in performing task. ➤ Explaining the various types of special and punctuation keys on the keyboard and their functions. ➤ Hands-on experience through worksheets and quiz on the computer. ➤ Explaining and demonstrating and show that certain keys work in combinations. ➤ E.g. 1. shift + alphabets/symbols 2. Ctrl+alt+del 	<ul style="list-style-type: none"> ➤ Computer system/IWB with keyboard, software like Tux-type/ Typing Tutor ➤ Visual charts ➤ Group discussions ➤ Worksheets



Topic 5: Mouse – an Input Device

A Mouse serves as an input device to type text, play games, draw pictures, watch videos etc.

Learning Outcomes:

Children will be able to:

- ☑ identify different activities performed on a mouse;
- ☑ use the mouse to perform drag and drop activities.

Mouse – an Input Device		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
➤ Application of a mouse for dragging and dropping objects.	<ul style="list-style-type: none">➤ Identifying and listing out activities done through the use of mouse buttons.➤ Demonstrating the use of a mouse for dragging and dropping objects.➤ Flipping the right and left button of the mouse as per requirement.➤ Conducting hands on activity through individual usage of the mouse.	<ul style="list-style-type: none">➤ Computer system,➤ Educational games integrated with the curriculum of Computer studies.

Skills: fine motor skills



Topic 6: Introduction to Paint

Paint software is a utility software used to transform ideas into picture using various tools.

Learning Outcomes:

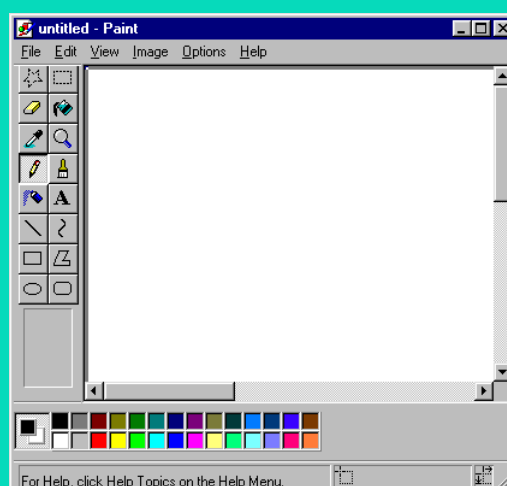
Children will be able to:

- ✔ use shape tools to draw pictures;
- ✔ open, minimize, maximize and close the paint window;
- ✔ open and save a file.

Introduction to Paint		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Introduction to Paint software ▶ Opening, minimising, maximising and closing Paint window ▶ Saving the file at the desired location ▶ Opening/editing the existing file ▶ Paint window ▶ Open and save a file ▶ Shape tools 	<ul style="list-style-type: none"> ▶ Explaining the purpose and usage of a paint software. ▶ Demonstrating the activities related to ▶ Opening, minimising, maximising and closing Paint window ▶ Saving the file at the desired location ▶ Opening/editing the existing file ▶ Showing of shape tools to draw pictures ▶ Demonstrating some examples of paint activities on the computer such as: <ul style="list-style-type: none"> • Birthday cards • Pictures to illustrate Children's Day, Environment Day, Sports Day, Fancy dress etc. • Topic based posters etc. ▶ Providing Hands-on experience in groups to children on the computer. 	<ul style="list-style-type: none"> ▶ Computer / IWB with any Paint software. ▶ show demo / pictures on the Internet.

Life Skills: Creative Thinking

Integration: Arts Education



Topic 7: File Management – An Introduction

Files are pictures, documents, presentations etc. created using a software. File management helps us to organise files in the computer.

Learning Outcomes:

Children will be able to:

- ☑ Develop an awareness on the importance of file management;
- ☑ save a file in the specified path.

File Management – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">➤ Introduction to the concept of saving a file and its purpose➤ Saving a file in the specified path.	<ul style="list-style-type: none">➤ Explaining the concept of a file and the need for saving it.➤ Hands-on activities (individual or group) on the Computer.	<ul style="list-style-type: none">➤ Computers/ IWB➤ File making activities.➤ Worksheet activities

Life Skills: Organisational skills, Working together



Topic 1: A Computer System

A computer system is a complex system to perform specific tasks. It consists of hardware and software components. Hardware is the physical part of the computer whereas software is the program that makes the hardware work. According to Input-Process-Output (IPO) model, the computer system accepts data as input, processes it to provide the required output.

Learning Outcomes:

Children will be able to:

- locate input and output devices;
- define a computer system;
- describe briefly the components of the CPU;
- explain the working of a computer using an IPO model;
- explain the need of software to make the hardware work;
- correlate parts of a computer in terms of its hardware.

A Computer System

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ A Computer system – meaning ➤ Hardware and software – meaning and examples ➤ IPO cycle 	<ul style="list-style-type: none"> ➤ Recapitulating the different types of Input and Output devices. ➤ Explain the meaning of different terms of a computer system along with examples. ➤ Demonstrating the working of hardware through visuals. ➤ Discussing the computer system with the help of a labelled diagram ➤ Explaining IPO model showing components of CPU (Control unit, Memory unit and Arithmetic logic unit) and flow of data. ➤ Providing opportunities for practice worksheets on IPO model, etc. ➤ Discussing a few commonly used software application software. 	<ul style="list-style-type: none"> ➤ Computer/IWB with Internet connectivity. ➤ Videos related to the Topic.

Life Skills: Technical awareness



Topic 2: GUI Operating System – An Introduction

An operating system (OS) is an interface between the hardware and user. It is responsible for the management and coordination of activities and the sharing of the resources of a computer. The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons.

Learning Outcomes:

Children will be able to:

- ☑ describe the basic terminologies related to GUI;
- ☑ list different types of OS and their functions;
- ☑ use various power modes of the computer.

GUI Operating System – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Graphic user interface (GUI) ➤ An Operating System (OS) ➤ OS is a software which makes the computer work with a special reference to GUI. ➤ Desktop and its components ➤ the desktop and its components (icons, taskbar, start button) ➤ Basic operations on the desktop ➤ the basic operations on the desktop like opening, moving and arranging desktop icons and setting wallpaper and screensaver. 	<ul style="list-style-type: none"> ➤ Illustrating / discussing the key concepts of OS, Desktop its components and basic operations. ➤ OS is a software which makes the computer work with a special reference to GUI. ➤ Putting up charts and diagrams and asking some of the children to explain the concepts to others in the class. ➤ Explaining briefly the distinction between safe mode and normal mode. ➤ Inculcating the habit of systematically switching on (Login) and off (Shut down) the computer. 	<ul style="list-style-type: none"> ➤ Computer /IWB with a GUI operating system. ➤ Hands on experiences. ➤ Worksheets.

Life Skills: Working together, Creative thinking

Topic 3: Word processor – An Introduction

Word processor is a software program used to store, format or manipulate a text document such as a letter, a resume or a report. It provides tools for typing, copying, deleting and various types of formatting and editing. Saving is a concept of moving data from a temporary storage area to a permanent one so that continuation or editing of a file is possible later on.

Learning Outcomes:

Children will be able to:

- explain the purpose of word processor;
- describe the components of word processor window;
- create, save and close a file;
- differentiate between save and save as;
- open and edit an existing file.

Word processor – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Introduction to the word processor and its purpose ➤ Opening and exiting the software ➤ Components of word processor window. ➤ Create, save and close a file ➤ Open and edit existing files. 	<ul style="list-style-type: none"> ➤ Explaining that the Word Processor as a software is used for creating documents. ➤ Illustrating different components of the word processor window and their functions. ➤ Demonstrating the editing features using an existing file. ➤ Explaining on a monitor the concept of Save and Save as ➤ Providing opportunities for hands on experience for creating, editing, saving and closing a file. ➤ Encouraging children to enter simple text using appropriate keys. ➤ Inculcating the habit of not to touch (open/ edit/ delete, etc.) others file. 	<ul style="list-style-type: none"> ➤ Computer system/IWB with word processor. ➤ Working on a “Word” software

Life Skills: Working together

Topic 4: The Internet – An Introduction

The Internet is a global system of interconnected computer systems. It is used for many constructive purposes like collecting and sharing information. It is important to be responsible and follow Netiquettes for safe browsing on the Internet.

Learning Outcomes:

Children will be able to:

- explain the purpose of the Internet;
- list its advantages and disadvantages;
- classify basic terminologies;
- open a website using the web browser;
- list the best practices while using Internet;
- list out safety precautions;
- give reasons for following safety precautions while working online.

The Internet – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Brief introduction to the Internet (collecting information, communication, sharing information, e-commerce etc.) ▷ Uses of Internet ▷ Advantages and disadvantages of the Internet ▷ Basic terminologies related to the Internet like web Browser, website, webpage, home page, and search engines etc. ▷ Open web page using web address ▷ Best practices related to online safety ▷ Responsibilities of a good digital citizen 	<ul style="list-style-type: none"> ▷ Discussing the Internet and its usage and its application in our daily lives. ▷ Interacting with the children to get an overview of the advantages and disadvantages of the Internet. ▷ Demonstrating the basic terminologies through visual representation. ▷ Assisting children to open appropriate sites related to the Topics. Assisting them whenever necessary. ▷ Explaining the need for best practices and the importance to follow them. ▷ Sensitising children towards the responsibilities of a good digital citizen. ▷ Facilitating a quiz game amongst children in teams on: uses of internet, advantages and disadvantages, basic terminologies, best practices and responsibilities of a good digital citizen. 	<ul style="list-style-type: none"> ▷ Computer system/IWB with internet connection. ▷ Search appropriate sites under adult supervision. ▷ Discussions on best practices.

Integration: Social Studies, Languages

Topic 5: Fun with Paint

Paint software is a utility software used to draw, copy and edit pictures using various tools. While saving the file various file extensions are used based on the type of software. For example, digital pictures can be stored in formats like .png, .jpg etc. This would be helpful in organising the files in the computer.

Learning Outcomes:

Children will be able to:

- ☑ use various tools of Paint to draw and modify a picture;
- ☑ save a file in different formats.

Fun with Paint		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Recapitulation of skills learnt in Paint software earlier. ➤ Tools of Paint software like, colour picker, callout etc. ➤ Different file formats like .jpg, .png, etc. 	<ul style="list-style-type: none"> ➤ Demonstrating the use of different Paint tools ➤ Showing how to modify a picture by: <ul style="list-style-type: none"> ➤ copying and moving pictures ➤ free form selection ➤ resizing the pictures ➤ Discussing how to save files in different file formats ➤ Conducting hands on practice /activities with children on the computer either individually or in groups. 	<ul style="list-style-type: none"> ➤ Computer system/IWB with any Paint software.

Integration: Arts Education

Life Skills: Creative thinking



Topic 6: File Management – Organisation of Folders

As files are documents, presentations, etc. created using a software, folders are hypothetical spaces at desired locations to store information in the computer. Folders are used to organize files that may contain other folders/ individual files.

Learning Outcomes:

Children will be able to:

- explain the concept of a folder;
- save a file in the folder using a specified path.

File Management – Organisation of Folders

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">▶ Concept of a folder▶ Creating, saving and opening a file and folder	<ul style="list-style-type: none">▶ Discussing the purpose of saving a file in a folder.▶ Demonstrating the path for the file to be saved.▶ Providing Hands on experience on computers to each child in the class on creating, saving and opening a file and folder.	<ul style="list-style-type: none">▶ Computer / IWB

Life Skills: Organisational skills



Topic 1: Computers – Storage and Memory device

A Computer system is a highly organised system that processes data which is a representation of facts, concepts or instructions. Processed data become information on which decisions and actions are based. Bits and Bytes are the basic units to represent data in the computer system. Computer data storage often called storage or memory is a technology used to retain digital data internally or externally. There are two types of memory - Internal and External.

Learning Outcomes:

Children will be able to:

- ☑ differentiate between the terms data and information;
- ☑ explain the purpose of internal and external memory;
- ☑ describe different data storage units;
- ☑ list the primary and secondary data storage devices.

Computers – Storage and Memory device

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Data vs Information ➤ Data storage units-basic facts ➤ Internal and External memory ➤ Primary and Secondary Storage Devices 	<ul style="list-style-type: none"> ➤ Discussing about data and information related to real-life scenario by using a computer. ➤ Explaining the concept of memory and its capacity related to the size of the storage devices. ➤ Introducing the basic concepts of bits and bytes. Relating the units to digital system (ON and OFF). ➤ Providing opportunities for hands on practice to the children through online Worksheets 	<ul style="list-style-type: none"> ➤ Physical memory devices/ visuals using IWB. ➤ Online Worksheets ➤ Online computer experiences.

Life Skills: General awareness

Topic 2: GUI Operating System – Desktop Management

The Graphical User Interface (GUI) operating system has a visual environment using windows, buttons, and icons. Using this interface, user can customise the wallpaper, screen/desktop, set time/date, etc.

Learning Outcomes:

Children will be able to:

- ☑ recall the features of OS and GUI;
- ☑ identify and use the Task Bar, Quick Launch Bar and short cut menu;
- ☑ customize the windows setup.

GUI Operating System – Desktop Management

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Recapitulation of the Topic done in previous class. ➤ Usage of Quick Launch Bar, Task Bar ➤ Setting Date, time and volume of the speaker. ➤ Use of shortcut menu 	<ul style="list-style-type: none"> ➤ Conducting activities to: ➤ Explaining the use of different task bars and customizing windows. ➤ Observing children work responsibly on the windows set up and providing a timely feedback. 	<ul style="list-style-type: none"> ➤ Computer / IWB with GUI operating system. ➤ Hands on experiences ➤ Worksheet analysis by teacher.

Life Skills: General Awareness



Topic 3: Tools of Word Processor

Editing tools present in the word processing software are used to modify documents while Formatting tools are used to design how each page of the document will appear when it is printed. The printer is an output device (hardware) connected to the computer, that enables the user to take a hard copy of the files stored in the internal/external storage devices.

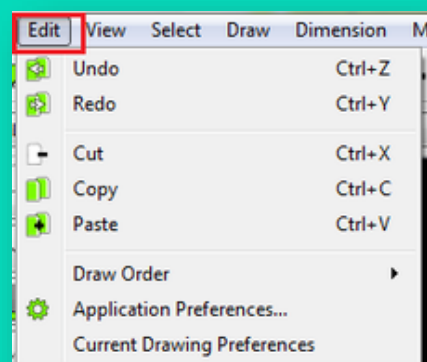
Learning Outcomes:

Children will be able to:

- use various features of editing and formatting;
- use shortcut keys;
- prepare a document based on their requirement;
- preview and print a document.

Tools of Word Processor		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Editing a document ➤ using Undo and redo commands ➤ checking spelling and grammar ➤ describing the purpose of using Thesaurus ➤ Formatting a document ➤ Font: Font size, colour, bold, italics and underline ➤ changing text alignment ➤ changing line spacing and paragraph spacing. ➤ Shortcut keys ➤ Using a printer for printing and print preview 	<ul style="list-style-type: none"> ➤ Recapitulation of the activities done in previous class. ➤ Review of the features done previously. ➤ Demonstrating various tools related to Editing and Formatting ➤ Providing opportunities through hands-on-experience to each child /in groups on the computer/s by: ➤ showing sample documents, to prepare required documents using the features learnt ➤ discussing in detail the difference between editing and formatting. ➤ demonstrating the use of print preview and the steps for printing the document. ➤ explaining the use of shortcut keys. ➤ Children doing all the above. 	<ul style="list-style-type: none"> ➤ Computer/IWB with a word processor software. ➤ Printer ➤ Hands on experiences – to work on computer

Life Skills: General awareness, Creative thinking, Decision making, Collaborative learning, presentation skills



Topic 4: The Internet - Web Browser

A web browser is a software which enables the user to interact with text, images, videos, music, and other information present on the internet.

The Search Engine is a software that is used to search information on the Internet. While searching for information using Search Engines, the user has to use the appropriate keywords. It is important to be more responsible and follow Netiquettes for safe browsing on the internet.

Learning Outcomes:

Children will be able to:

- ☑ label the parts of a browser window;
- ☑ define the terminologies related to Internet Network;
- ☑ use appropriate keywords to collect information;
- ☑ make responsible decision while browsing.

The Internet - Web Browser		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Network in terms of Internet ➤ Basic requirements for an Internet connection ➤ Parts of a browser window (address bar, refresh button, favourite, history, home, stop, back and forward, new tab) ➤ Related terms like www, URL, ISP, net surfing ➤ Search engine 	<ul style="list-style-type: none"> ➤ Recapitulation of previous learning on the Internet ➤ Explaining: <ul style="list-style-type: none"> ➤ the concept of Network through role play. ➤ The parts of a browser window ➤ terminologies ➤ Discussing various search engines and how to use them. ➤ Discussing usage of appropriate keywords to search information. 	<ul style="list-style-type: none"> ➤ Computers/IWB with an internet connection ➤ Worksheets

Life Skills: Work ethics, Decision making, Collaborative learning



Topic 5: Presentation Software – An Introduction

The presentation software is a software that enables the user to present information, graphics, videos, etc. through slide shows in an attractive way. This software ensures that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

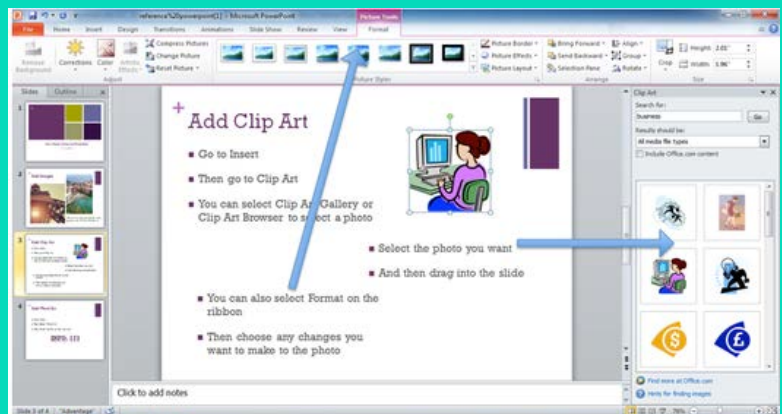
- ☑ explain the purpose of presentation software;
- ☑ choose appropriate layouts according to the requirement;
- ☑ create, add text and images to the slide;
- ☑ navigate between the slides;
- ☑ present a slide show.

Presentation Software – An Introduction

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Introduction to presentation software and its purpose ➤ Opening and exiting a presentation software ➤ Components of a presentation software window. ➤ Concept of slides and its layouts ➤ Slide show presentation 	<ul style="list-style-type: none"> ➤ Discussing the importance of presentation software as a group activity. ➤ Demonstrating how to: <ul style="list-style-type: none"> ☛ Prepare layouts of slides and its uses according to the requirements. ☛ create, save, and close a file ☛ open and edit an existing file ☛ insert a slide to a presentation ☛ add of text and images to a presentation ➤ Providing hands-on experience to children (individually /groups) for preparing a presentation on selected topics integrated with the curriculum/real-life scenario. 	<ul style="list-style-type: none"> ➤ Computers/IWB with presentation software.

Integration: Languages

Life Skills: Work ethics, Decision making, Collaborative learning, Creative thinking, Presentation skills



Topic 6: Step-Wise Thinking

Step-Wise Thinking helps in converting complicated tasks into simple steps, predicting the possible solutions to achieve the desired goal. For example - Planning and organising a birthday party, summer trip.

Learning Outcomes:

Children will be able to:

- ☑ analyse the task;
- ☑ break up the task into simple steps;
- ☑ predict possible solutions.

Step-Wise Thinking		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Reasoning and problem solving – meaning ▷ Case studies 	<ul style="list-style-type: none"> ▷ Taking a real life scenario/ case study, to plan a task. ▷ Discussing with the children to break the task into small steps. ▷ Dividing the class into groups and assigning the same task to each group to find the solution. ▷ Suggested task could be - Planning for a picnic/a birthday party/visit to a park. 	<ul style="list-style-type: none"> ▷ IWB with presentation software ▷ Projector ▷ Case Study



Topic 7: Features of File Management

Folder is a location to store information in the computer. It is used to organize files and folders according to the user's requirements.

Learning Outcomes:

Children will be able to:

- copy and move a file/folder;
- rename and delete files and folders;
- Inculcate habits not to tamper others' files or folders.

Features of File Management

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">▶ Copy and move a file/folder from one location to another▶ Rename a file/folder▶ Delete a file/folder.▶ Not tampering with others' files/folders.	<ul style="list-style-type: none">▶ Recollect the activities done in previous classes▶ demonstrating different operations of file management, like copying, moving, renaming, deleting a file/folder.	<ul style="list-style-type: none">▶ Computer / IWB

Life Skills: Work ethics

Topic 1: Evolution of Computers

The evolution of computers started way back in the late 1930s and the first known device was Abacus. Based on the hardware, evolution of computers has been classified into five generations.

Learning Outcomes:

Children will be able to:

- ☑ describe the history of computers;
- ☑ state its characteristics and limitations;
- ☑ compare the generations of computers;
- ☑ keep pace with the latest developments related to technology.

Evolution of Computers

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ History of Computers ▷ Characteristics of computers ▷ Limitations of a computer 	<ul style="list-style-type: none"> ▷ Demonstrating the history of computers through presentations/ videos/ Interactive classes. ▷ Providing opportunities to discuss the characteristics and limitations of computers. ▷ Illustrating the latest technological developments by using pictures or showing videos. ▷ Facilitating a quiz game on all the key concepts either as a group or whole class activity. 	<ul style="list-style-type: none"> ▷ Computers/ IWB with presentation software. ▷ Videos ▷ Projector, etc.

Integration: Social Studies

Life Skills: Critical thinking,



Topic 2: Types of Software

A software is the programme that makes the physical computer perform specific tasks. Based on function and purpose, software is broadly classified into System and Application software.

Learning Outcomes:

Children will be able to:

- ☑ define the term software;
- ☑ explain the types of software and their purpose with examples;
- ☑ differentiate between system software and application software;
- ☑ backup files;
- ☑ scan the System/Drive/File;
- ☑ use defragmentation utility.

Types of Software		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▷ Types of software ▷ System software ▷ Operation support system ▷ Utility software ▷ Application software ▷ General Purpose Application Software ▷ Customized Software ▷ Backup of files. ▷ Utility Programs like backup, scanning, defragmentation 	<ul style="list-style-type: none"> ▷ Build on previous experience ▷ Explaining the classification of software: ▷ Discussing the importance of different utility programs ▷ Providing opportunity for hands on activity in groups/individually to children to use utility software in Group / individual level activities. 	<ul style="list-style-type: none"> ▷ Computers/ IWB with utility software ▷ Videos ▷ Projector, etc.

Life Skills: General awareness, decision making, problem solving and responsible behaviour.



Topic 3: Advanced Features of Word processor

Formatting and Editing tools are used to design how each page of a document will appear when it is printed. Additional features like find/ replace/insert are used for editing purposes and in some cases, to create a report. Using drawing tools like shape tools, user can insert pictures as per their requirements to enhance the look of the document.

Learning Outcomes:

Children will be able to:

- ☑ enhance the document by using advanced formatting tools;
- ☑ use editing tools;
- ☑ use drawing tools.

Advanced Features of Word processor

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Advanced formatting tools like Format painter, Subscript, Superscript shadows etc., ➤ Editing tools ➤ Header & footer ➤ Inserting column & column break, page break and line break ➤ Tabs, indent text, Margins ➤ Page orientation and page size ➤ Search and replace text ➤ Drawing tools ➤ Working with shapes ➤ Placing text in shapes ➤ Applying border and shading etc. 	<ul style="list-style-type: none"> ➤ Recollect activities discussed in classes earlier ➤ Demonstrating in group to children the advanced formatting tools to enhance the look of the document. ➤ Demonstrating in groups to children the editing tools of page setting ➤ Explaining the drawing tools 	<ul style="list-style-type: none"> ➤ Computer/ IWB with Word Processor. ➤ Hands on activity/ experiences ➤ Projector ➤ Demonstration by teacher

Integration: Languages

Life Skills: Creative thinking.



Topic 4: Presentation software – Special Effects

Presentations can be enhanced in an attractive manner by using various tools like clipart, word art, animations, etc. These ensure that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

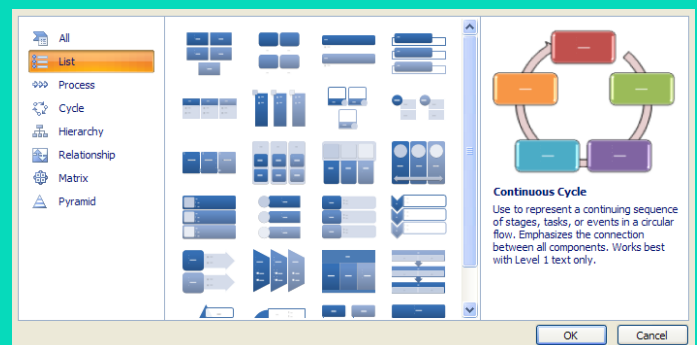
- express the topic attractively using different templates;
- enhance the presentation by applying formatting effects and inserting objects.

Presentation software – Special Effects

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ▶ Built-in templates ▶ Enhancing the look of a presentation ▶ Changing colour scheme, background colour. ▶ Specifying alignments. ▶ Inserting different objects like Clipart, Word art and shapes 	<ul style="list-style-type: none"> ▶ Recapitulation of previous learning. ▶ Demonstrating the procedure of using templates. ▶ Demonstrating applying different formatting effects <p>Providing hands on experience in groups/individually to children in using the various formatting effects.</p>	<ul style="list-style-type: none"> ▶ Computers/ IWB with presentation software. ▶ Projector

Integration: Arts Education

Life Skills: Creative thinking



Topic 5: An Introduction to Scratch Programming

Programming is the process of taking an algorithm/stepwise-thinking and encoding it into a programming language, so that a computer can execute it and produce the desired output.

Scratch is a free programming software that enables children to create their own games, animated stories and interactive art.

Learning Outcomes:

Children will be able to:

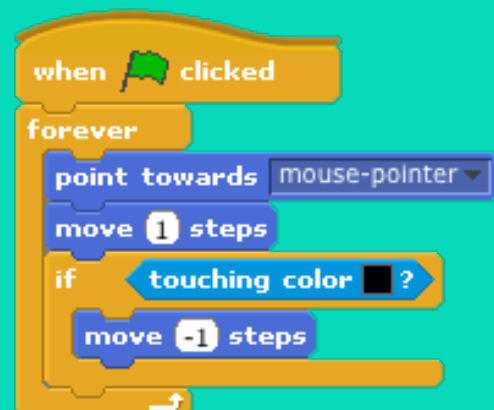
- ☑ explain the concept of programme and programming;
- ☑ work on scratch interface;
- ☑ handle basic commands;
- ☑ develop logical thinking.

An Introduction to Scratch Programming

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Program Programming ➤ Brief introduction of Scratch software ➤ Use of basic commands in Scratch 	<ul style="list-style-type: none"> ➤ Explaining the concept of program and programming ➤ Hands on activity in groups/individually to children to get acquainted with Scratch and basic commands like 'motion', 'pen, and 'sound' blocks ➤ Providing opportunities by using computers to develop creativity and imagination among children. 	<ul style="list-style-type: none"> ➤ Computers/ IWB with Scratch software ➤ Projector, etc.

Life Skills: Creative thinking

Integration: Mathematics



Topic 6: Internet Services

Internet services enables the user to access and gain information through use of the internet. There are different ways to connect to the internet. For example, dial-up, broadband and wireless services.

Learning Outcomes:

Children will be able to:

- identify the ways to connect to the Internet services;
- use the different internet services;
- follow Netiquettes while communicating online.

Internet Services		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Ways to connect to the Internet ➤ Netiquettes while communicating online 	<ul style="list-style-type: none"> ➤ Organising active discussions /participation of children sharing their experiences related with the topic. ➤ Discussing and demonstrating different ways to connect to Internet services like dial-up, broadband and wireless. ➤ Discussing strategies to safeguard oneself while communicating online by following Netiquettes. ➤ Emphasising the importance of being a responsible netizen. ➤ Providing hands-on experience to children in groups/individually in actual use of the Internet. ➤ Facilitating a Quiz Game amongst children in groups/whole class on the key concepts. 	<ul style="list-style-type: none"> ➤ Computers/ IWB with presentation software

Life Skills: Interpersonal skills, net safety



*ARTS
EDUCATION*

ARTS EDUCATION



The Arts are organised expressions of ideas, feelings and experiences in images, music, language, gesture and movement. They provide for sensory, emotional, intellectual and creative enrichment and contribute to the child's holistic development. Much of what is finest in society is developed through a variety of art forms which contribute to the cultural ethos and sense of well-being of an individual.

Overview

Various policy documents have recommended Arts Education as an area of immense importance for the overall development of students. Report of the Education Commission (1952-53) emphasized the "release of creative energy among the students so that they may be able to appreciate cultural heritage and cultivate rich interests, which they can pursue in their leisure and later in life" and the Kothari Commission re-emphasized the role of arts in education and stated, "The neglect of arts in education impoverishes the educational process and leads to a decline of aesthetic tastes and values."

Arts education was always recommended as an important component of the school curriculum in all National Curriculum Frameworks. The NCF 2005 recommendations brought in the major shift giving Arts Education the status of a curricular area of school education from classes I to X on one hand and arts as an approach to learning to be integrated across the complete school curriculum on the other.

At International front, the UNESCO outlines the importance of Arts Education and its essential role in improving the quality of education. UNESCO's Road Map (2006) endeavors to define concepts and identifies good practices in the field of arts education, globally. It is meant to serve as an evolving reference document which outlines concrete changes and steps required to promote arts education in educational settings.

The Seoul Agenda (2010) is another important policy document of UNESCO on Arts Education. Its three Goals for the Development of Arts Education reflect that Arts education has an important role to play in the constructive transformation of educational systems that are struggling to meet the needs of learners in a rapidly changing world characterized by remarkable advances in technology on the one hand and intractable social and cultural injustices on the other.

Objectives of Teaching and Learning Arts

Education deals with human nature, which has its own potential and pace of growth. Its objective is not to mould, but to facilitate the individual to grow and develop into a creative and productive citizen. The aim is to make an individual free to make his/her own choices in life and grow holistically. In other words, education in general and Art Education in particular is a way for one to

grow and become sensitive to the beauty in nature, of social values and the aesthetic aspects of life as a whole.

The Objectives of teaching and learning Arts are:

- ✓ Awareness about oneself and one's immediate environment, from physical existence of objects to daily life experiences and their social importance.
- ✓ Development of individuality, sense of self and self-identity including personal identity and social identity.
- ✓ Opportunity for experiential learning through exploring, appreciating, creating, imagining and expressing.
- ✓ Develop sensory, kinaesthetic, psycho motor and affective abilities.
- ✓ Develop cognitive abilities such as imagination, divergent thinking, critical and reflective thinking.
- ✓ Develop an understanding of art materials, methods, tools & techniques, and of processes to communicate and express ideas and feelings in different ways.
- ✓ Develop a non-verbal means of communicating ideas and seeing relationships to reinforce verbal learning.
- ✓ Develop the sensory and other skills in differently abled children (children with special needs) so as to include them in to the mainstream of the process of art learning with normal children.
- ✓ Appreciation of India's heritage and cultural diversity, and that of the world.
- ✓ Develop humane values of peaceful co-existence with nature and other human beings.

Art Education Curriculum and Suggestive Pedagogical Guidelines

Art is essential for cognitive, affective and psychomotor development of every child. It also helps them in modes of expression, visualizing, scenario building, creative problem solving, divergent, critical and reflective thinking. Arts education enhances a child's ability to understand their traditional art heritage as a national treasure and conserve and preserve it. Experiencing arts and its explorations during the school years give them avenues to nurture creativity which makes them contributing citizens.

The Curriculum of 'Art Education' is delimited to the 'Visual Arts', which consists of; 2-D work such as; Drawing, Painting, Printing, Still-life, pen & Ink, Collage, Paper-craft, Photography, Animation, Graphic-designing etc. and 3-D work such as; Mask making, Clay-modelling, Puppet making, Sculpture, Installations etc.

Stage wise/class wise pedagogical guidelines are given in detail alongside the theme charts of curriculum outcomes, with general guidelines to assist teachers / facilitators plan and conduct the teaching learning experiences better are as given below;

Pedagogical Guidelines -Primary Level

At the primary level children develop an understanding of the school and its environment as their first introduction to a formal setup. Art is known to be the best tool to cater to the needs at this stage and adds to the learning and development of children.

Profile of the learner

Children at this stage are between the ages of 6 to 11 years (varying from 5+ to 10+ in some cases). They move into the world of fantasy, increased curiosity, take initiatives on their own, and start developing skills. They are hyperactive with high levels of physical energy, start understanding different identities, they pick up personality traits and associate themselves with their role models.

Their participation in art experiences increase with liking for analytical thinking and appreciation. At this stage, children prefer to work in groups / teams. They start questioning their own work and this can be used for developing self-assessment and peer assessment among themselves.

Content and Methodology

Content is based on self, family, school and the immediate environment. Methodology – At primary level for teaching and learning arts can be used creatively to channelize the high energy levels of children by exposing them to different art forms such as; drawing & painting, rangoli, sand art, clay-modeling, printing, paper crafts, constructing and sculpting, crafts etc. Outside activities such as: field trips to zoos, gardens, parks, fire station, post office, museums, fairs etc. are an important component to learn about their immediate environment at this level. Encourage participation in community celebrations, festivals and visits to the place of work of artists and artisans to give them better exposure of our cultural diversity. Collaborative learning can be promoted to ensure the inclusion of differently abled children. Teachers should ensure that children of different learning abilities are grouped together while making teams.

All activities, whether individual or group, should be evaluated and tools and techniques recommended should include: observations, interactions, portfolios, displays, sketch books, scrap-books, presentations etc.

Visual Arts Education

Visual Arts education is the area of learning that is based solely on the kind of art that one can see which includes drawing, painting, print making, collage, textiles, sculpture, artefacts and design in jewellery, pottery, weaving, fabrics, etc. and design applied to more practical fields such as commercial graphics and home furnishings.

Drawing



Drawing is a means of making an image, using any of a wide variety of tools and techniques. It generally involves making marks on a surface by applying pressure from a tool, or moving a tool across a surface using dry media such as graphite pencils, pen and ink, inked brushes, wax colour pencils, crayons, charcoals, pastels, and markers.

Painting



Painting is the practice of applying paint, pigment, colour or other medium to a solid surface. The medium is commonly applied to the base with a brush, but other implements, such as knives, sponges, and airbrushes, can also be used. Painting is a mode of creative expression, and the forms are numerous. Drawing, gesture, composition, narration, or abstraction, among other aesthetic modes, reflect the expressive and conceptual intention of the artist.

Print making



Print making is the process of making artworks by printing, normally on paper that involves the making of a work of art by transferring ink from the surface upon which the work was originally drawn or otherwise composed to another surface.

Collage



Collage is a technique of an art production, primarily used in the visual arts, where the artwork is made from an assemblage of different forms, thus creating a new whole. A collage may sometimes include magazine and newspaper clippings, ribbons, paint, bits of coloured or handmade papers, portions of other artwork or texts, photographs and other found objects, glued to a piece of paper or canvas.

Textiles



Textiles are arts and crafts that use plant, animal and or synthetic fibres to construct practical or decorative objects. The textile arts also include those techniques which are used to embellish or decorate textiles – dyeing and printing to add colour and pattern; embroidery and other types of needlework; tablet weaving; and lace-making.

Three Dimensional Work



Three-dimensional art design is comprised of three main elements: balance, proportion and rhythm. Balance denotes visual balance and not the actual ability to stand upright. Proportion refers to the various parts of the three-dimensional object. The parts need to give the appearance of belonging together. Rhythm is the repetition of line or shape within the overall form.

Art & Artefacts

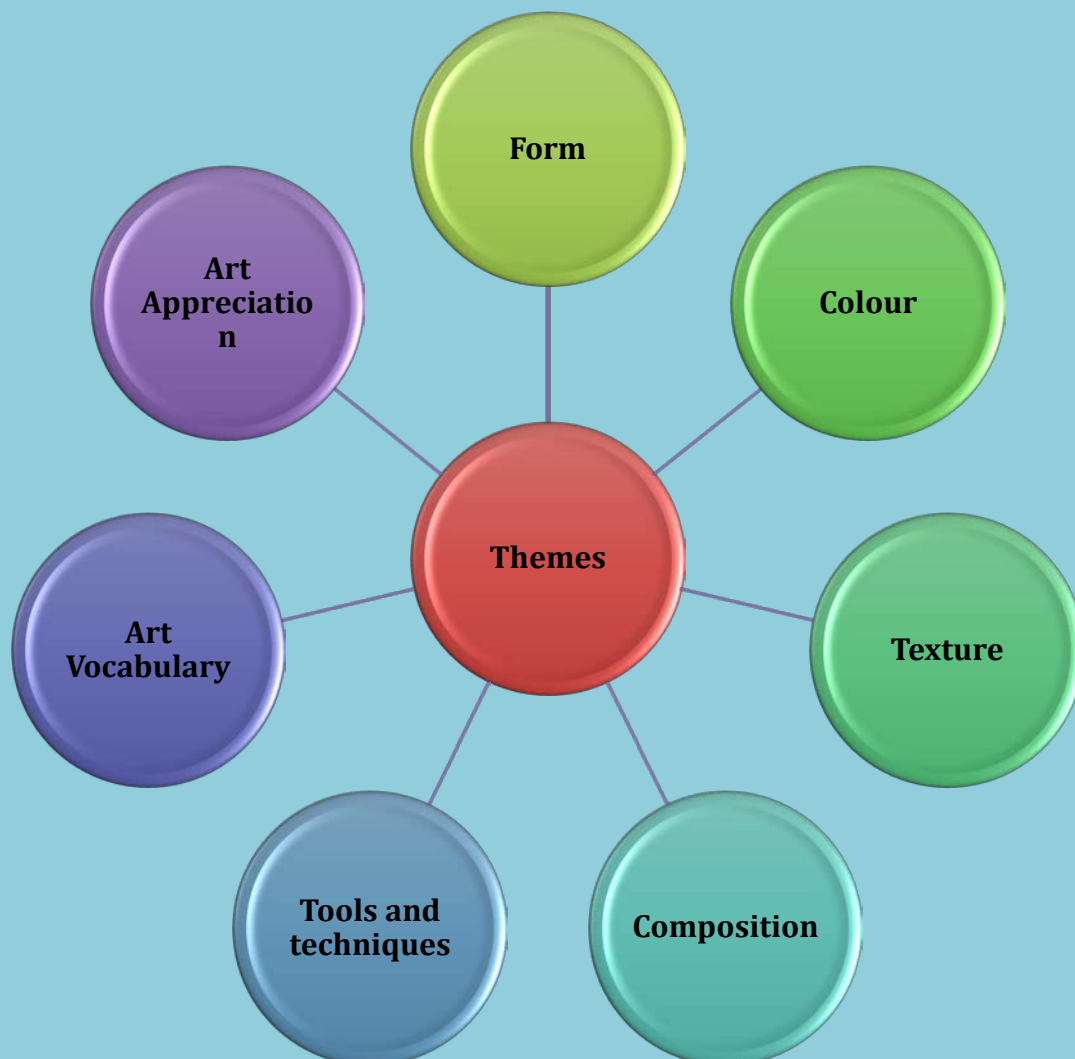


An artefact is something made or given a shape by man, such as a tool or a work of art, especially an object of archaeological interest. Examples include stone tools, pottery vessels, metal objects such as weapons, and items of personal adornment such as buttons, jewellery and clothing.

Suggested Resource List

1. Drawing : Pencil, Chalk, Wax Crayons, Brushes and Pens
2. Painting : Powders, Tempera, Posters, Inks, Natural Dyes
3. Print Making : Potato, And Other Vegetables, Card, Woodspring
4. Collage : Paper, Card, Fabric, Threads, Feathers, Wood, Metal,
5. Textile Experience : Threads, Fibres Fabrics (Knotted, Woven, Patterned, Dyed, Embroidered, etc.)
6. Three Dimensional : Clay, Plasticine, Dough, Junk, Modelling, Wood, Styrofoam, Sculpture etc.
7. Response to Artefacts : Displays, Visits, Objects, Drawings, Paintings, Sculpture, Reproductions etc.

The themes being focussed on in the syllabus for Arts Education for Classes I to V, are presented in the diagram given below. There are totally seven themes.



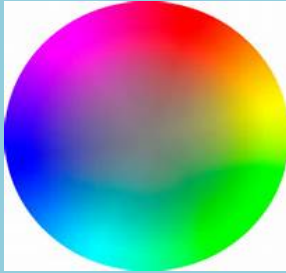
Theme 1



Form

Forms; Lines, shapes and sizes of the objects in the immediate surroundings/environment, both natural and man-made.

Theme 2



Colour

Colours and naming them after common objects /flowers /fruits / vegetables /animals etc. Understanding and using the characteristics of colour – hue, tint, shade

Theme 3



Texture

Different surfaces; soft, smooth, hard, rough etc.

Theme 4



Composition

Organisation of 2-D and 3-D space, Artistic placement of colours and forms, installation of 3-D objects, painting landscapes/ seascapes, composition based on seasons, sports, parks, situations, arranging patterns, making designs etc. Identification of different kinds of symmetry as types of balance – radial, symmetrical and asymmetrical

Theme 5



Tools and Techniques

Use of flat and round brushes, exploring 2-D and 3D methods & materials, such as; drawing, painting, printing, collage making, paper crafts, clay modelling, pottery, construction of objects & situations, mask making, etc.

Theme 6



Art Vocabulary

Identification of tools, papers and materials with their names. Names of techniques, such as: drawing, painting, folding, stretching, printing, block impression, spray work, blow painting and thumb painting. Names of colours, shapes, sizes, words of appreciation etc.

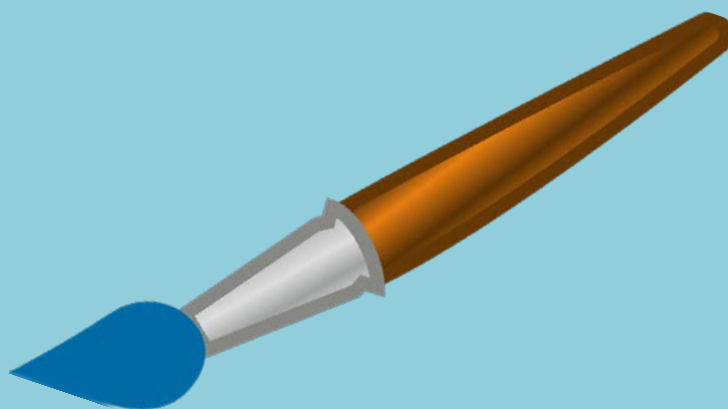
Theme 7



Art Appreciation or Responding to Artefacts and Nature

Appreciation of artefacts and nature around us, understanding of visual representation of objects, situations and concepts.

All the seven themes will be dealt with in the sequence given above in Classes I to III followed by Classes IV & V.



Theme 1: Form

The theme 'Form' is aimed at developing an understanding of line, shape and size of objects. The prime focus of this theme is to observe and identify lines and shapes in nature and in man-made objects from the immediate surroundings. Understanding of sizes such as: small, big, tall, huge, tiny etc., and creation of different forms with 2-D and 3-D materials. The process of identification of forms enhances skills, such as; observation, exploration, concentration and creative expression. Learning from this theme will be utilised for facilitating learning of language, EVS and Maths.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify and name different shapes of household objects, furniture items, buildings, plants and trees, etc.;
- ☑ draw and paint different shapes of different sizes on paper;
- ☑ make shapes of different sizes with clay;
- ☑ identify and draw lines namely; straight, curved, smooth, crooked, vertical and horizontal etc.;
- ☑ share and communicate (verbally and in writing) the details, i.e. name of the shape, size and line of objects;
- ☑ make images of objects, animals, trees, etc., using lines and shapes;
- ☑ identify the differences in sizes of objects, trees, buildings, etc., and create 2-D representation;
- ☑ demonstrate use of extended vocabulary related to theme;
- ☑ apply the experience of forms (in line, shape and size) with mathematics;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing.

Theme – Form		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Knowledge on Lines, Shapes and Sizes. ➤ Lines, Shapes and Sizes in plants, trees, in buildings and objects. ➤ Differentiation between shapes, sizes and lines, their examples from immediate surroundings ➤ Draw and paint different shapes, different sizes and label them. ➤ Clay-model the form of a table, box, house, etc., using different shapes. ➤ Play quick games to draw 	<ul style="list-style-type: none"> ➤ Providing opportunities for sharing personal experiences by children. ➤ Facilitating guided observation and exploration of the school park/s, school building by the teacher. ➤ Initiating discussion on different shapes and sizes of objects in the classroom and in immediate surroundings. ➤ Providing opportunities to draw & paint, clay-model different forms, using different shapes and sizes. ➤ Providing an opportunity to observe picture cards (flash cards) and matching their drawings and clay-models for their appropriateness. 	<ul style="list-style-type: none"> ➤ Children's own learning experiences related with their toys, household objects, pets, nature etc. ➤ Art Room with working tables of appropriate height ➤ School building and garden ➤ Picture cards on shapes, sizes and lines. ➤ Drawing and painting materials, drawing sheets ➤ White board or classroom board ➤ Water colours

Theme – Form

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
images of different shapes. ➤ Integration of art experiences with learning of other subject, such as; language, EVS and Maths.	➤ Discussing the differences between shapes, sizes and lines with the whole class and in groups. ➤ Ice-breaker on quick draw of shapes and lines (10 seconds to each child) using class-board/white board. ➤ Involving children in origami activity to create different shapes. Integration with other subjects: ➤ Language Providing opportunities to make poems, songs on shapes, sizes and lines for developing verbal expression. ➤ EVS: Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). ➤ Mathematics: <i>concept of lines and shapes, segregation and grouping of triangles, rectangles, circles, etc.</i>	➤ Potter's clay ➤ Origami paper ➤ Apron and towel

Life Skills: Cleanliness through participation, working together

CLASSES – IV & V

Learning Outcomes:

Children will be able to:

- ☑ identify different geometrical shapes in furniture items, school building, plants and trees and other objects.;
- ☑ draw and paint objects using different shapes of different sizes on paper;
- ☑ make objects using shapes of different sizes with clay;
- ☑ draw patterns using different lines namely: straight, curved, smooth, crooked, vertical and horizontal lines;
- ☑ share and communicate (verbally and in writing) the meaning of form;
- ☑ differentiate between geometrical and natural forms;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experience and understanding of forms (in line, shape and size) with mathematics;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing more.

Form

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different geometrical shapes in furniture items, school building, plants & trees. ➤ Draw and paint different shapes of different sizes on paper. ➤ Create different forms with clay, ➤ Draw different patterns using straight , curved , smooth , crooked , vertical and horizontal lines. ➤ Linking the experience and understanding of forms (lines, shapes and sizes) with learning of concepts in other subjects. ➤ Observe and explore one's immediate surroundings for the joy of knowing more. 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for sharing their personal experiences related with the theme. ➤ Encouraging children to create different forms, such as, my school, the playground I like, my chair, my classroom, furniture in my bedroom etc. in drawing or/and painting. ➤ Engaging children in clay modelling on themes of common interest, such as; drawing room furniture, means of transportation etc., in small groups. ➤ Encouraging children to creating their own patterns on objects made with clay. ➤ Organising discussions based on placards/ pictures/video clips on variety of forms. ➤ Conducting exercises on 'Who is Quicker' in drawing of household objects (10 seconds to each child) using class-board/white board. ➤ Encouraging children to participate in Origami: to create birds, animals, aeroplane, boat etc. <p>Integration with Other Subjects:</p> <ul style="list-style-type: none"> ➤ Language: Providing opportunities to make poems/ songs on objects to develop verbal expression. ➤ Science/SST: Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). ➤ Mathematics: concept of lines, angles of triangles, rectangles, square, circle etc. in Maths. 	<ul style="list-style-type: none"> ➤ Children's own learning experiences related to their toys, furniture items, school building and nature etc. ➤ Picture cards/ placards on different forms. ➤ Drawing and painting materials. ➤ Potters clay. ➤ Art Room with working tables of appropriate height. ➤ White board or classroom board/s. ➤ Water colours. ➤ Potter's clay. ➤ Origami paper. ➤ Apron and towel

Life Skills: Creative expression.

Theme 2: Colour

The theme 'colour' is aimed at developing an understanding of different colours on the one hand and developing aesthetic sensibility on the other. The prime focus of this theme is to observe and identify colours in nature and in man-made objects. Understanding relationship of certain colours with plants, flowers, fruits and nature. For example, leaf green, sea blue & sky blue, bottle green, lemon yellow etc. Creation of different shades by mixing of two different colours. For example; mixing of red and yellow in equal quantity will create orange colour. The process of identification and understanding of colours enhances skills, such as; observation, exploration, experimentation and artistic expression. Learning from this theme will be utilised for facilitating learning of language and EVS.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify and name different colours of household objects, furniture items, flowers, vegetables, fruits, plants and trees;
- ☑ paint directly on paper with liquid (water based) colours;
- ☑ draw images (dry colours) of their liking from the immediate surroundings and colour them in appropriate colours;
- ☑ create new colours/shades by mixing primary colours;
- ☑ demonstrate use of extended vocabulary related to theme;
- ☑ link the experience and understanding of colours with learning of language and EVS;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing different hues and colours;
- ☑ feel better emotionally/internally after experiencing with colours of their choice;
- ☑ appreciate beauty in nature and in human-made objects.

Colour		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different colours: - identify and name them. ➤ Primary colours to create different colours and shades – their uses ➤ Use of extended vocabulary related to theme. ➤ Differentiation between shades of the same colour with examples from immediate surroundings ➤ Beautification of surroundings using colours 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for sharing their personal experiences on colours around them. ➤ Facilitating through guided visits to the school garden or children's park observation and exploration amongst children for seeing colours of nature and collecting leaves, flowers, feathers, twigs, pebbles from the school grounds. ➤ Assigning children to see and draw vegetables and fruits at home/in kitchen garden/on fruit & vegetable 	<ul style="list-style-type: none"> ➤ Children's own learning experiences related with their toys, flowers, vegetables, fruits, pets, plants & trees, etc. ➤ School garden /children's park. ➤ Picture cards. ➤ Drawing and painting materials, drawing sheets, Pigment, Paints, Inks, Dyes, Colours etc. ➤ Cellophane sheets of red,

Colour

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>and coloured objects.</p> <ul style="list-style-type: none"> ➤ Create small poems/ songs on colours ➤ <i>Integration of art experiences with learning in other subjects, such as; language and EVS.</i> 	<p>cart and write name of the colours.</p> <ul style="list-style-type: none"> ➤ Facilitating creation of picture cards by children. ➤ Encouraging participation of children in Hand painting with basic colours in small teams (each child using a separate colour), exploring new colours using cellophane paper of different colours. ➤ Demonstrating and discussing the creation of new colours and shades. ➤ Organising individual activity to use materials such as; sponge, straws, thread, pebbles etc., to play with colours. ➤ Providing children Opportunities to observe picture cards (flash cards) and match their drawings and clay-models appropriately. ➤ Facilitating children making Rangoli with leaves, flowers, sand, shells, coloured pebbles, etc. <p>Integration with other subjects:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Facilitating the composition of a poem or song colour- wise. (Group activity) <p>EVS:</p> <ul style="list-style-type: none"> ➤ Rangoli to explain cleanliness and beautification of the places where we live. ➤ Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	<p>yellow and blue colours.</p> <ul style="list-style-type: none"> ➤ Thread, sponge, straw, etc. ➤ Art Room with working tables of appropriate height, slabs on sides. ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting.

Life Skills: Creative expression

CLASSES – IV & V

Learning Outcomes:

Children will be able to:

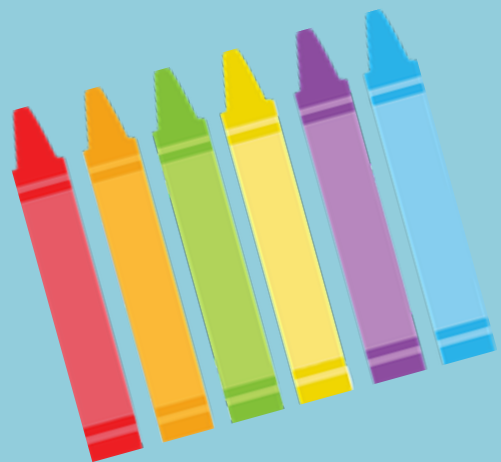
- ☑ identify and name different colours / shades of household objects, furniture items, flowers, vegetables, fruits, plants & trees etc.;
- ☑ drawing and painting images of their liking from immediate surroundings and colour them with their appropriate colours;
- ☑ create secondary colours and their shades by mixing primary colours;
- ☑ identify neutral colours and use them for creating tones;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experience and understanding of colours with learning of language and EVS;
- ☑ feel better emotionally/internally after experiencing and expressing through colours;
- ☑ appreciate beauty of colours in nature and in human-made objects around.

Colour		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different colours and their shades/ tones: - Identify and name them. ➤ Draw and paint images of the child's liking and colour them with appropriate colours. ➤ Creation of Secondary colours and their shades by mixing primary colours. ➤ Neutral colours and using them for creating tones. ➤ Extended vocabulary related to the theme – their uses ➤ Tones of the same colour with examples from immediate surroundings. ➤ Beautification of surroundings using colours/ coloured objects. 	<ul style="list-style-type: none"> ➤ Providing children opportunities for sharing personal experiences with colours around them and their likes and dislikes about certain colours. ➤ Conducting activities to emphasize on names of the secondary colours and shades of these colours. ➤ Encouraging children to keenly observe and explore nature to notice the variety of colours and shades in nature; leaves, flowers, feathers, twigs, fruits, vegetables etc., for making scrap book on colours. ➤ Using the created scrap books to discuss colours, shades and tones with children. ➤ Giving home assignments to children to draw & colour or click pictures of objects of same colour but with different tones or shade of that colour. For example; Green of spinach, of lady-fingers, of bitter gourd, of cucumber etc. ➤ Encouraging children to make their own colour chart. ➤ Organising discussions in groups on creation of new colours/shades and 	<ul style="list-style-type: none"> ➤ Children's own experiences related to the colours. ➤ Scrap book on colours and shades. ➤ Exploration of the school garden /children park or any other places in the immediate surroundings. ➤ Picture cards on colours and shades of different colours. ➤ Drawing and painting materials, drawing sheets, pigment, paints, inks, dyes, powder colours, sawdust, sand, etc. ➤ Thread, sponge, straw, paper cuttings. ➤ Art Room with working tables of appropriate height, slabs on sides. ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting.

Colour

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<p>tones. Use sample cards. Ask questions such as;</p> <ul style="list-style-type: none"> • How do you make lemon green? • What do you mix in red to get the colour pink? <ul style="list-style-type: none"> ➤ Organising individual activity to use variety of materials such as; sponge, straws, thread, pebbles, paper cuttings, etc., to play with colours. ➤ Encouraging children to make Rangoli with leaves, flowers, sand, shells, coloured pebbles, saw dust, powder colours etc. <p>Integration with:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Facilitating to create poem/s on any one colour. (individual activity) <p>Science/ SST:</p> <ul style="list-style-type: none"> ➤ Rangoli to explain cleanliness and beautification of the places where we live. ➤ Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	

Life Skills: Beautification through participation



Theme 3: Texture

The theme 'Texture' is aimed at developing an understanding of different textures and surfaces. The prime focus of this theme is to observe, identify and create textures. Understanding the relationship of certain textures with plants, trees, flowers, fruits, furs, feathers, wool, sand, fabric, etc. For example, fur is soft, sand is rough, bark of a tree is rough and thick, etc. Creation of different textures and surfaces by using mix mediums and materials. For example; sand painting, impression of bark on clay slab etc. Experiences with different textures can sharpen the sense of touch among children. The process of identification, understanding and creation of texture enhances skills, such as; observation, imagination, experimentation and artistic expression. Learning from this theme will be utilised for facilitating learning of language and EVS.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify and name different textures and surfaces of household objects, flowers, vegetables, fruits, plants & trees, animals, fabric, wool, sponge etc.;
- ☑ create new textures by mixing and pasting, different mediums and materials;
- ☑ demonstrate use of extended vocabulary related to theme;
- ☑ link the experiences and understanding of textures with learning of language and EVS;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing different surfaces and textures;
- ☑ feel better emotionally after experiencing the touch of different textures of their liking;
- ☑ appreciate beauty and variety of surfaces in nature.

Texture		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different Textures. – identify and name them ➤ Different materials to create different surfaces and textures – its uses ➤ Extended vocabulary related to the theme – its uses ➤ Narration on the differences between soft and rough, smooth and sandy textures and surfaces. 	<ul style="list-style-type: none"> ➤ Providing children opportunities for sharing their personal experiences on likes and dislikes about different textures. ➤ Facilitating a 'Collection Walk' by children in and around school for observation, and touching different textures and surfaces. ➤ Encouraging children to collect a variety of leaves, flowers, feathers, bark, pebbles, sand, sponge, feathers and fabrics from immediate surroundings. ➤ Organizing participation of children in classroom games to identify different textures and surfaces while 	<ul style="list-style-type: none"> ➤ Children's own learning experiences related with their toys, flowers, fabrics, vegetables, fruits, pets, plants, trees, etc. ➤ Guided collection walks of the surroundings. ➤ Samples of different surfaces. ➤ Drawing and painting materials, brushes, drawing sheets, glue,

Texture

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Create small poem or song on texture/s. ➤ Integration of art experiences with learning of other subject, such as; language and EVS. 	<p>blindfolded.</p> <ul style="list-style-type: none"> ➤ Discussing new textures. ➤ Conducting group activities with children to create different textures and surfaces making use of collected objects such as; leaves, flowers, feathers, bark, pebbles, sand, sponge, feathers, fabrics. ➤ Learning to take impressions of tree barks on clay slabs and imprinting one's own name to the surface created. ➤ Encouraging children to walk bare feet on sand, grass, wood planks, marble, carpet and narrate the feeling to peers in class. ➤ Making soft toys of a rabbit, cat, dog and dolls with soft materials with children individually and in groups. ➤ Exploring textures by walking on different surfaces in school. <p>Integration with other subjects:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Facilitating the composition of a poem or narration of a story based on a soft toy that children have played with (individual activity). <p>EVS:</p> <ul style="list-style-type: none"> ➤ Learning to keep the immediate surroundings neat and clean i.e class, school and home. ➤ Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	<ul style="list-style-type: none"> ➤ sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. ➤ Art Room with working tables of appropriate height, slabs on sides ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting

Life Skills: Keeping surroundings Neat and Clean, working together



CLASSES – IV & V

Learning Outcomes:

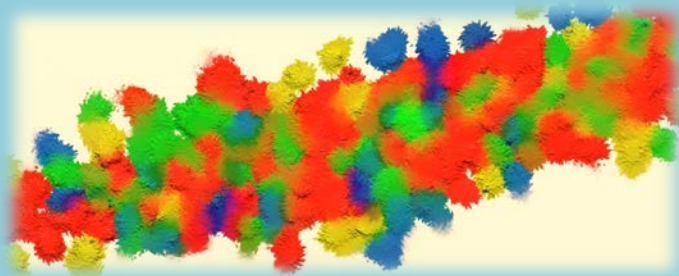
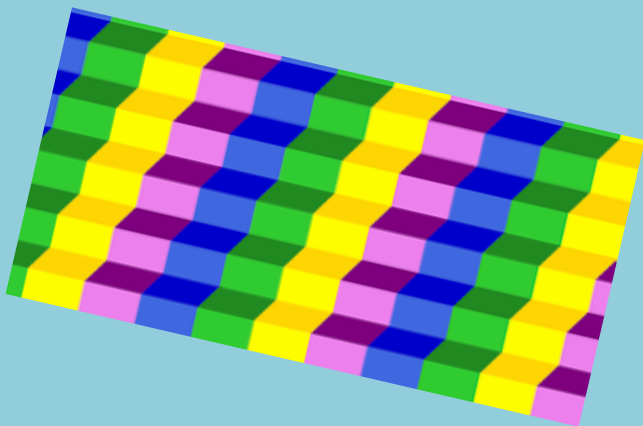
Children will be able to:

- ☑ identify and name different textures and surfaces of the household objects, flowers, vegetables, fruits, plants & trees, animals, fabrics, wool, sponge etc.;
- ☑ create new textures in 2-D and 3-D mediums and materials;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experience and understanding of textures with learning of language and EVS;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing and experiencing different surfaces and textures;
- ☑ appreciate beauty and variety of surfaces in nature.

Texture		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different textures and surfaces of the household objects, natural objects, textiles, etc. :- Identify and name them. ➤ Create new textures in 2-D and 3-D mediums and materials. ➤ Extended vocabulary related to textures: - its use 	<ul style="list-style-type: none"> ➤ Encouraging 'Collection Walk' by children in and around school for observation, and touch of different textures and surfaces. ➤ Providing opportunities to children for sharing their personal experiences related to different textures and surfaces with peers. ➤ Drawing, painting and printing activities to create texture of stone, and wood. ➤ Developing collages and/or clay modelling with children for creating textures of wool and sand. ➤ Identifying textures and surfaces while blindfolded by children (group activity) with a bag full of mixed objects to explore with. ➤ Encouraging children to walk bare feet on sand, grass, wood planks, marble, carpet, jute mats, sponge sheets, wet and dry space and share/ narrate their experiences/feelings with peers in the class. <p>Integration with other subjects: Language:</p> <ul style="list-style-type: none"> ➤ Facilitation to create poem or story on 	<ul style="list-style-type: none"> ➤ Children's own learning experiences related with their toys, household objects, flowers, vegetables, fruits, plants & trees, animals, fabrics, wool, sponge etc. ➤ Samples of different surfaces. ➤ Drawing and painting materials, drawing sheets, Glue, sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. ➤ Art Room with working tables of appropriate height, slabs on sides. ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting

Texture		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<p>topic such as; <i>'I still remember that rough surface.'</i> <i>'The comforting touch of my blanket.'</i> <i>etc.</i></p> <p>(individual activity) Science/ SST:</p> <ul style="list-style-type: none"> ➤ Cleanliness of the places where we live. ➤ Aesthetic sensibility towards diversity in nature. ➤ Engage children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	

Life Skills: Appreciation of Cleanliness, Creative expression and working together



Theme 4: Composition

The theme 'composition', particularly in visual arts (painting, printing, graphic design, sculpture, installation, etc.) is meant for the placement or arrangement of visual elements and organisation of the space (2-D and 3-D both) in a suitable manner. The prime focus of the theme is on artistic placement of colours and forms, painting of landscapes/seascapes, composition based on seasons, sports, parks, situations, arranging patterns, making designs, installation of 3-D objects, etc. In the visual arts, composition is often used interchangeably with various terms such as design, visual ordering or formal structure, depending on the context. The process of visualizing and making composition enhances skills, such as; observation, imagination, experimentation, communication and artistic expression. The prime focus of this theme is to observe and find out compositions in nature, and in human-made structures. It will also promote understanding the relationship of one object with another, of form with the colours, of objects with the overall theme and visual impact of the work of art. For example, in a composition of the 'Rainy Day', the form of clouds, the lines of falling rain drops, colours supporting mood of the weather and finally the visual impact of the composition, all are interrelated and interdependent.

Learning from this theme will be utilised for facilitating learning of Languages, EVS and Mathematics.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify different compositions of their liking from the immediate surroundings;
- ☑ arrange different shapes, objects, images on paper (2 D space) and on ground/slab/corner (3D spaces);
- ☑ draw / paint compositions on themes, such as; myself, my family, my school, park where I play;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experience and understanding of composition with learning of language, maths and EVS;
- ☑ engage and learn to observe and explore immediate surroundings for joy of knowing different composition;
- ☑ feel better emotionally/internally after communicating and expressing through their arrangement of visual images;
- ☑ appreciate beauty in nature and in man-made objects around them.

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none">➤ Different compositions from the immediate surroundings- Identify and name them.➤ Different shapes, objects,	<ul style="list-style-type: none">➤ Providing opportunities to children for sharing their personal experiences on arrangements they observe around them.➤ Organising discussions with children on their likes and dislikes on which	<ul style="list-style-type: none">➤ Children's own learning experiences related with arranging their toys, plants, furniture, different rooms, including own room, arranging idols during

Composition

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>images in 2 D space and in 3D space: - arranging them.</p> <ul style="list-style-type: none"> ➤ Draw / paint compositions on themes, such as; myself, my family, my school, my park etc. ➤ Extended vocabulary related to composition: - its uses. ➤ Immediate surroundings for joy of knowing different composition: - Engage and learn to observe and explore. ➤ <i>Learn to link the experience and understanding of composition with learning of language, maths and EVS.</i> 	<p>corner at home, school, ground looks good and reasons for the same.</p> <ul style="list-style-type: none"> ➤ Conducting guided visits to the school garden/children's park. ➤ Helping children make their own viewfinders with a thick sheet, card board or soft board. ➤ Facilitating observation, and exploration amongst children for seeing compositions in nature with the help of their view finders. ➤ Encouraging children as part of their home assignments to explore best corners/ scenes in their own houses, gardens and neighbourhood with the help of their view finders. ➤ Encouraging children to make their own compositions on simple themes, such as; myself, my family, my school, my park etc. ➤ Organising brain storming sessions on rearranging classroom boards and displays. ➤ Organising discussions on different compositions based on picture cards/placards. Examples should be related to the immediate surrounding of the child. <p>Facilitating children to make border design/s using shapes/blocks/fingers and create patterns.</p> <ul style="list-style-type: none"> ➤ Making Rangoli with leaves, flowers, sand, shells, coloured pebbles etc. <p>Integration with other subjects:</p> <p>Languages:</p> <ul style="list-style-type: none"> ➤ Facilitating children to freely narrate their own experiences on composition. ➤ Writing a few lines on own compositions. <p>Mathematics:</p> <ul style="list-style-type: none"> ➤ Understanding of shapes and patterns. Segregation and grouping of objects <p>EVS:</p> <ul style="list-style-type: none"> ➤ Making of <i>Rangolis</i> and explaining cleanliness and beautification of the places where we live. 	<p>special days, pooja, festivals etc.</p> <ul style="list-style-type: none"> ➤ School garden /children park. ➤ Sheets of paper card board and soft board. ➤ Picture cards depicting different compositions. ➤ Drawing/painting materials. (sheets, paints, clay, thread, sponge, straw, adhesive, card board, Rangoli material, etc.) ➤ Art Room with working tables of appropriate height, slabs on sides ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
	<ul style="list-style-type: none"> ➤ Composing short essays on myself, my family, my school, my park etc., within relevant units/chapters. ➤ Engaging children in the upkeep of the classroom after the art activity (to learn cleanliness, beautification and working together). 	

Life Skills: Cleanliness, appreciating beauty and working together.

CLASSES – IV & V

Learning Outcomes:

Children will be able to:

- ☑ select compositions from the immediate surroundings, using the view finder;
- ☑ draw or paint compositions on themes, such as; festival/s I like, Hockey/Football/Cricket match, landscape, seascape.;
- ☑ compose poster and greeting cards;
- ☑ install 3-D objects in a given theme;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experiences gained while creating composition, with learning of other subjects;
- ☑ engage with and learn to observe and explore their immediate surroundings for joy of knowing different composition;
- ☑ feel better emotionally/internally after communicating and expressing through their arrangement of visual images.

Composition		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Selection of compositions from the immediate surroundings. ➤ Drawing and/or painting compositions based on themes/topics. ➤ Compose posters and greeting cards. ➤ Install 3-D objects on a given topic /theme. ➤ Extended vocabulary 	<ul style="list-style-type: none"> ➤ Providing children opportunities for exploring and selecting compositions from their immediate environment. ➤ Encouraging children to explore independently interesting locations in their immediate surroundings. ➤ Doing a quick sketching of the selected compositions with pencil or with dry pastels. ➤ Encouraging children to draw and/or paint compositions on themes, such as; my 	<ul style="list-style-type: none"> ➤ Children’s own learning experiences related with arranging their toys, landscapes/seascapes, furniture items in different rooms/ settings including his/her own room, ➤ School garden, children’s parks,

Composition

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>related to composition – its use.</p> <ul style="list-style-type: none"> ➤ Engage and learn to observe and explore immediate surroundings for joy of knowing more. ➤ Link the experience and understanding of compositions with learning in other subjects. 	<p>family, my school, festival/s, Hockey/ Football/ Cricket match of my school, landscapes, seascapes etc.</p> <ul style="list-style-type: none"> ➤ Arranging idols during Poojas, special days, festivals etc. ➤ Guiding children to make their own viewfinder. ➤ Providing opportunities to children to create 3-D objects on themes, such as; furniture in my room, kitchen objects, garden furniture etc., and installation of the same. ➤ Brain storming with children on rearranging classroom boards and displays. ➤ Conducting discussions on age appropriate compositions. Examples should be related to the immediate environment of the child. ➤ Facilitating children in making border design/s using shapes/blocks/fingers and creating patterns. ➤ Facilitating children in making a Rangoli with leaves, flowers, sand, shells, coloured pebbles etc. <p>Integration with other subjects:</p> <p>Languages:</p> <ul style="list-style-type: none"> ➤ Facilitating children to narrate experiences on a composition. ➤ Writing a paragraph describing experience related to the compositions created. <p>Science/SST:</p> <ul style="list-style-type: none"> ➤ Relating a composition/s on; my family, my school, my playground, my city, etc., with relevant units/ chapters. ➤ Engaging children in the upkeep of the classroom after the art activity to learn cleanliness and beautification of the surroundings. ➤ Through group activities inculcating the value of cooperation and working together. 	<p>historical monuments, etc.</p> <ul style="list-style-type: none"> ➤ View finder, Picture cards depicting different compositions. ➤ Drawing/painting materials such as paints, clay, adhesive, card board, Rangoli material, etc. ➤ Art Room with working tables of appropriate height, slabs on sides. ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting

Life Skills: Mutual respect for working together.

Theme 5: Tools and Techniques

The theme "Tools and Techniques" is aimed at developing an understanding of different tools and techniques used for experiencing visual arts. The process of knowing and working with tools and techniques enhances skills, such as; observation, experimentation, problem solving and free expression. The prime focus of this theme is to identify, experiment and understand the appropriate use of different tools, materials and techniques used for expressing through the visual arts. It will promote understanding the relationship of tools and materials with that of techniques. For example, soft brushes for water based colours, poster colours for block printing, inks and water colours for blow painting, poster colours for hand painting and finger painting, etc.

Handling of different tools and techniques. For example; Use of soft but flat brushes (of bigger number) for broader strokes, Round brushes for drawing lines of varied thickness, dry colours (pencils, wax crayons, pastels etc.) for drawing images, filling colours mainly on paper, glue for fixing of paper cuttings and collage making, slab method and coil method for clay modelling etc. Experience with different tools and techniques can sharpen their common sense and make them a confident user.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify and name different tools and techniques, such as; round brushes, flat brushes, scissors, roller/rolling pin, drawing, painting, printing, clay modelling, spray painting, origami, construction, paper craft, etc.;
- ☑ create art work using age appropriate tools;
- ☑ practice different techniques, such as; hand painting, thumb painting, blow painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, clay modelling with coil, slab and pressing and pinching, etc.;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the experience and understanding of tools and techniques with learning of other subjects;
- ☑ engage and learn to explore immediate surroundings for joy of knowing and creating with different tools, materials and techniques;
- ☑ feel better emotionally after learning to control and use of different tools techniques;
- ☑ appreciate beauty and variety of methods and materials of visual expression.

Tools and Techniques

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Age appropriate tools and techniques of visual Arts, such as; round brushes, flat brushes, scissors, rollers drawing & painting, printing, clay 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for sharing their personal experiences on their likes and dislikes about different tools, materials and techniques seen, used or created. ➤ Facilitating children's individual 	<ul style="list-style-type: none"> ➤ Children's own experiences of drawing, painting, printing or playing with sand, clay, papers or self-found art materials. ➤ Collection and display of

Tools and Techniques

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>modelling, construction, paper craft, etc.: - Identify and name them.</p> <ul style="list-style-type: none"> ➤ Create art work using age appropriate tools. ➤ Practice age appropriate techniques, such as; hand painting, thumb painting, blow painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, clay modelling with coil, slab and pressing and pinching etc. ➤ Extended vocabulary related to the theme – Its uses ➤ Sharing of likes and dislikes on techniques with reasons. ➤ Composition of small poems or songs on tool/s. 	<p>engagement with activities with tools and materials from their homes and immediate surroundings.</p> <ul style="list-style-type: none"> ➤ 'Demonstrating the use of tools and materials collected by children or provided by the school and the techniques that can be used. ➤ Facilitating the appropriate use of tools and materials for picking up the right technique/s, such as; hand painting, thumb painting, poster colour painting, reverse technique with wax crayons, chalk drawing, sand painting, use of pastel colours, taking impressions with spray painting, blow painting, thread painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, etc. etc. ➤ Devising new tools, materials and new techniques by children. ➤ Conducting group activities to create clay models of common furniture items, household objects, animal etc., in coil, slab and press and pinch technique. ➤ Organising group activities on block printing for creating border of the classroom display boards, using block made of sponge/ foam, buttons, nail head, wood piece etc. ➤ Facilitating children taking impressions of tree barks , coins and leaves on clay slabs for demonstrating the reverse techniques of taking prints. ➤ Helping in creating their own blocks for stamping. <p>Integration with other subjects:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Assisting them in composition of a poem/s based on their brush, colour, block, objects created with clay etc. in small groups. <p>EVS:</p> <ul style="list-style-type: none"> ➤ Knowing our immediate surroundings. ➤ Engaging children for classroom display to learn cleanliness and beautification. 	<p>age appropriate art tools and materials in the class.</p> <ul style="list-style-type: none"> ➤ Collection and display of local specific /easily available tools and materials in the art room/classroom. ➤ Samples of different art techniques. ➤ Videos on age appropriate 'how to do' on different techniques. ➤ Drawing & painting materials such as- brushes, drawing sheets, dry and wet colours of different types, glue, sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. ➤ Art Room with working tables of appropriate height, slabs for 3-D display on sides. ➤ Boards for art displays. ➤ Aprons and towels. ➤ Water arrangements for painting

Life Skills: Creative expression, appreciating beauty and working together.

Learning Outcomes:

Children will be able to:

- ☑ identify and name the age appropriate tools and materials;
- ☑ differentiate and describe different age appropriate techniques, such as; drawing, colouring, painting, pen & ink, block printing, 2-D and 3-D work, origami, coil, slab and pinching methods of clay modelling, paper masks, 3-D masks and puppets, simple crafts (local specific) rangoli, wall painting, etc.;
- ☑ create art works using age appropriate tools and techniques;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ create their own tools and techniques of visual expression;
- ☑ link the experience and understanding of tools and techniques with learning of other subjects;
- ☑ engage and learn to explore use of materials for joy of knowing and creating with different materials;
- ☑ appreciate beauty and variety of methods and materials for visual expression.

Tools and Techniques

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Age appropriate tools and materials – identify and name them. ➤ Age appropriate techniques: - drawing, colouring, painting, pen & ink, block printing, 2-D and 3-D work, origami, coil, slab and pinching methods of clay modelling, paper masks, 3-D masks and puppets, simple crafts (local specific) rangoli, wall painting, etc. ➤ Art works using age appropriate tools and techniques. ➤ Creation of own tools and techniques of visual expression. ➤ Extended vocabulary related to the theme – its use. ➤ Likes and dislikes on techniques with reasons. ➤ Composition of a small 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for sharing their personal experiences on likes and dislikes about different tools, materials and techniques seen, used or created. ➤ Participating children's engagement in the collection activities on tools, techniques and materials from home and from immediate surroundings. ➤ Asking children question in the 'Do you know?' format, such as; <ul style="list-style-type: none"> ☛ Name any 3 painting tools and materials you have seen and used. ☛ Name any 3 printing tools/materials you know. ☛ Which collage materials did you like the most? ☛ What precautions do you take while working ink & pen technique? ☛ What is Block printing? ☛ What is the difference between slab and coil method? ☛ What is Origami? What material do you use in origami? etc. ➤ Facilitating the learning of new 	<ul style="list-style-type: none"> ➤ Children's own experience with different tools & techniques. ➤ Collection and display of age appropriate art tools, techniques and materials in the classroom. ➤ Collection and display of local specific /easily available tools and materials in the art room/classroom. ➤ Age appropriate samples in picture or in video form, of different art methods and techniques. ➤ Drawing & painting materials: (dry and wet colours of different types, glue, sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc.) ➤ Art Room with working tables of appropriate height, slabs for 3-D work

Tools and Techniques

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>poem or song on tool/s of the child's liking.</p> <ul style="list-style-type: none"> ☛ Integration of knowledge & experience of tools, materials and techniques with learning of other subject. 	<p>technique/s and use of new tools through demonstration method. For example; creating human face in press and pinch technique, create a geometrical block using soft surfaces (clay/cork/ potato/soft wood) etc. Making of a wall painting is another example which involves local specific tools, materials, motifs and composition.</p> <ul style="list-style-type: none"> ➤ Organising discussions on imagining new tools, materials and new techniques. Encourage and appreciate creation of new tools. ➤ Conducting group activities on block printing for creating carpet design on large size paper, using block created by the team. ➤ Taking impressions of all Indian coins (in use) on clay slabs for demonstrating relief and reverse techniques. <p><i>Integration with other subjects:</i> Language:</p> <ul style="list-style-type: none"> ➤ Encouraging them in creating a story of the brush / colour/ block etc. in small groups. ➤ Script of role play, such as; 'I am the brush', 'I am your new block' etc. <p><i>(story making can cover it's making process, it's use, it's value, etc.)</i></p> <p>Science/SST:</p> <ul style="list-style-type: none"> ➤ Knowing the immediate surroundings. ➤ Subject related themes can be selected for the art experience. ➤ Engaging children in the upkeep of the classroom after the art activity to learn cleanliness and beautification of the surroundings. 	<p>and display on sides.</p> <ul style="list-style-type: none"> ➤ Boards for art displays ➤ Aprons and towels ➤ Water arrangements

Life Skills: Appreciation of Beauty, working together

Theme 6: Art Vocabulary (Visual Arts)

The theme "Art Vocabulary" is aimed at learning and using appropriate names and terms related to art techniques, to hues and shades of colours, to tools and accessories used, to different mediums and materials and to the art appreciation. The prime focus of this theme is to know, to remember, and to use art related vocabulary appropriately. For example, block printing is done with the blocks, block printing is a technique which is used to take same kind of impression again and again. Soft paint brushes are used for doing water based colours, flat brushes (of bigger number) are used for broader strokes whereas round brushes are used for drawing lines of varied thickness, slab method and coil method are techniques of making 3-D objects with potter's clay, etc. Knowledge and experience of art vocabulary helps in better learning of the subject on one hand and effective communication on the other. The process of knowing and using appropriate vocabulary will enhance the communication skills of the learner.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify and name different tools and techniques, such as; round brushes, flat brushes, scissors, roller/rolling pin, drawing, painting, printing, clay modelling, spray painting, origami, construction, paper craft;
- ☑ differentiate between painting and printing, soft and hard brushes, between coil technique and slab technique;
- ☑ narrate art experiences using appropriate vocabulary;
- ☑ practice different techniques, such as; hand painting, thumb painting, blow painting, block printing, tearing pasting, paper folding, construction of small toys with wool, cotton and balloon, clay modelling with coil, slab and pressing and pinching etc., with clear understanding of the art techniques and name of the materials to be used for that;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the knowledge of art vocabulary with learning of other subjects;
- ☑ appreciate beauty and variety of artistic expression using appropriate vocabulary.

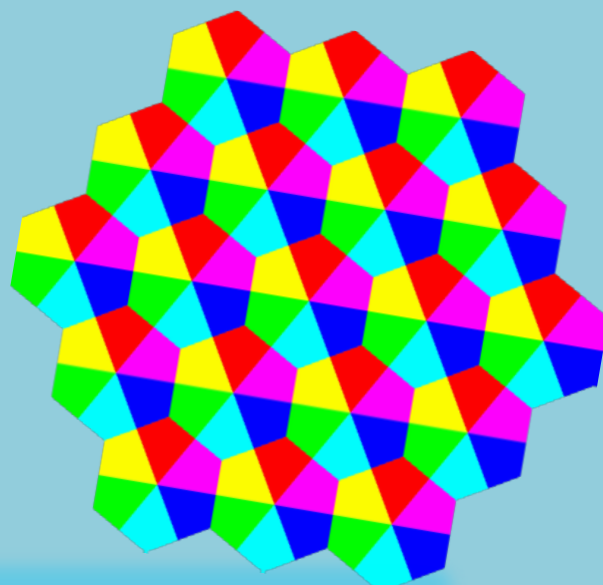
Art Vocabulary

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Different tools and techniques, such as; round brushes, flat brushes, scissors, roller/rolling pin, drawing, painting, printing, clay modelling, spray painting, origami, construction, paper craft, etc.: - Identify and name them ➤ Painting and printing, soft 	<ul style="list-style-type: none"> ➤ Providing opportunities to children and encouraging them to use appropriate vocabulary while sharing knowledge about different tools, materials and techniques of children's' liking. ➤ Organising discussions on samples of different art techniques with the use of appropriate vocabulary. ➤ Providing opportunities to children to make presentations on: my tools, my 	<ul style="list-style-type: none"> ➤ Children's scrap book of visual art tools and medium. ➤ Samples of different art techniques with appropriate titles and elaboration. ➤ Collection and display of age appropriate art tools and materials in the class. ➤ Collection and display of

Art Vocabulary

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>and hard brushes, coil technique and slab technique.: - Differences to be stated.</p> <ul style="list-style-type: none"> ➤ Narration of art experiences using appropriate vocabulary. ➤ Practice of different techniques, such as; hand painting, thumb painting, blow painting, clay modelling with coil, slab etc., with clear understanding of the art techniques and name of the materials to be used for that. ➤ Extended vocabulary related to the theme: - Its uses. ➤ Appreciation of beauty and variety of artistic expression using appropriate vocabulary. ➤ Integration of art experiences with learning of other subject. 	<p>colours, my painting, my toy, my tree etc. based on their scrap books.</p> <ul style="list-style-type: none"> ➤ Providing opportunities to participate in the display of art materials, in the classroom. ➤ Engaging in the practice of different techniques, such as; hand painting, thumb painting, blow painting, spray printing, block printing, reverse painting, chalk drawing, sand painting, use of pastel colours, clay modelling with coil, slab techniques, paper folding and mask making, painting and making of finger puppets, etc., with clear understanding of the art techniques and name of the materials and tools being used. <p>Integration with other subjects:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Assisting children in composing poem/s on a painting of their liking, on topics such as my brush, my colours, my etc. using appropriate vocabulary. <p>EVS:</p> <ul style="list-style-type: none"> ➤ Knowing our immediate surroundings. Engaging children to learn the upkeep of the classroom through cleanliness and beautification. 	<p>local specific /easily available tools and materials in the art room/classroom.</p> <ul style="list-style-type: none"> ➤ Drawing & painting materials, brushes, drawing sheets, dry and wet colours of different types, glue, sponge, pieces of different fabrics, sand, bark, wool, feathers, potters clay, etc. ➤ Boards for art displays

Life Skills: Creative Expression, Appreciate beauty



Learning Outcomes:

Children will be able to:

- ☑ identify different tools and techniques, such as; round brushes, flat brushes, hard and soft brushes, type of scissors, rollers/rolling pins, drawing & painting, printing, clay modelling, pottery, spray painting, Reverse techniques, origami, construction, Round and relief work, 2-D and 3-D work, paper craft;
- ☑ name terms/specifications of materials, such as; colours, medium of colours, water colours, pastel colours, neutral colours, shades and tones of colours, paints, background and foreground in the composition, landscapes, seascapes, lines of different types, shapes and sizes ;
- ☑ narrate art experiences using appropriate (age appropriate) vocabulary;
- ☑ communicate their art experience with appropriate use of art vocabulary;
- ☑ demonstrate use of extended vocabulary related to the theme;
- ☑ link the knowledge of art vocabulary with learning of other subjects;
- ☑ appreciate beauty and variety of artistic expression using appropriate vocabulary.

Art Vocabulary		
Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Age specific tools and techniques (brushes, type of scissors, rollers/ rolling pins, drawing & painting, printing, clay modelling, pottery, spray painting, reverse techniques, origami, construction, round and relief work, 2-D and 3-D arts, paper craft, etc.): - Name and identify them. ➤ Terms/specifications of materials, such as; colours, medium of colours, water colours, pastel colours, neutral colours, shades and tones of colours, paints, background and foreground in a painting or in a composition, landscapes, seascapes, lines of different types, shapes and sizes, accessory in the art room, etc : Name and identify them . ➤ Art experience using 	<ul style="list-style-type: none"> ➤ Providing opportunities to children for use of art vocabulary while sharing knowledge and experience of different art activities. ➤ Encouraging peer observations on all art activities to promote and practice art vocabulary. ➤ Organising discussions on samples of different art techniques, quality of materials value of art tools while using art vocabulary. ➤ Facilitating viewing of art video clips by children for quick observations. ➤ Giving opportunities to children to make presentations on my tools, my colours, my paintings, materials of my liking, my art room, paintings in my classroom, art work in school corridors, etc. This can be based on their scrap books. ➤ Organising visits to the museums, galleries, art exhibitions, local craftsmen, potter, etc. followed by writing of field experiences or an appreciation note on selected artefacts. ➤ Providing opportunities to children to participate in the display of art 	<ul style="list-style-type: none"> ➤ Children’s scrap book on tools and medium of visual arts. ➤ Children’s portfolios on art activities. ➤ Samples of paintings, photographs, of selected compositions, slides, videos of art camps and exhibitions etc. ➤ Collection and display of age appropriate art tools and materials in the class. This also includes local specific and easily available tools and materials. ➤ Drawing and painting materials, potters clay, etc. ➤ Museums, galleries, art fairs, local craftsmen, potters, etc. ➤ Boards for art displays.

Art Vocabulary

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>appropriate vocabulary: - Narrate in own language.</p> <ul style="list-style-type: none"> ➤ Communicate art experience with appropriate use of art vocabulary. ➤ Extended vocabulary related to the theme. For example, write an imaginary dialogue between colour and its shades, brush and sheet, potters clay and potter, etc. – its use. ➤ Artistic expression using appropriate vocabulary. <p>☛ <i>Integration of art experiences with learning of other subjects.</i></p>	<p>materials, in the classroom.</p> <p><i>Integration with other subjects:</i></p> <p><i>Language:</i></p> <ul style="list-style-type: none"> ➤ Assisting children in creating poem/s stories on painting/s of their liking, by using appropriate vocabulary. <p><i>Science/SST:</i></p> <ul style="list-style-type: none"> ➤ Knowing our immediate surroundings. ➤ Engaging children in classroom displays, to learn cleanliness and beautification. 	

Life Skills: Appreciation of beauty, working together



Theme 7: Responding to the Artefacts and Nature

The theme "Responding to the Artefacts and Nature" is aimed at knowing, understanding and appreciating the beauty of nature and the artefacts. The process of responding to the artefacts and nature will enhance the skills of; observation, exploration, critical analysis and creative expression. The prime focus of this theme is to make children aware and sensitive towards beauty and value of natural, as well as human-made objects. The process of appreciation will sensitize their eye for aesthetics and will develop an attitude for accepting and appreciating different aspects of objects and situations.

For example; (i) block printing done by 'A' can be beautiful because it has nice pattern, (ii) printing done by 'B' can also be beautiful as it has been done with contrast colours, (iii) Printing done by 'C' can also be considered beautiful as all impressions taken are sharp and clear. Similarly, in nature; beauty of the trees, of the flowers, of shape and colour of leaves, of the butterflies, of the birds and their nests, of sky in different colours, etc.

CLASSES – I to III

Learning Outcomes:

Children will be able to:

- ☑ identify the objects, scenes and situations of their liking in the immediate surroundings;
- ☑ appreciate the aesthetics of art work done in class;
- ☑ appreciate nature and natural objects; such as trees, plants, flowers, animals, lakes, sea beaches, rivers, mountains, clouds, wind, rain, sun and moon, sky, parks, butterflies etc.;
- ☑ respond to the different kinds of artefacts;
- ☑ narrate their experiences of the art museum, by describing artefacts seen;
- ☑ demonstrate the use of extended vocabulary related to the theme;
- ☑ link the knowledge of appreciating and responding to nature and the artefacts with learning of other subjects;
- ☑ appreciate beauty and variety in nature and of artefacts.

Responding to the Artefacts and Nature

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Objects, scenes and situation of the child's liking in the immediate surroundings: - Identify them. ➤ Art work done by classmates – reflections. ➤ Appreciation of the nature and natural objects; such as trees, plants, flowers, animals, lakes, sea beaches, rivers, mountains, clouds, 	<ul style="list-style-type: none"> ➤ Encouraging children to appreciate their immediate surroundings with a critical eye. ➤ Motivating children to observe and share their views on trees, on clouds, on flowers, on butterflies, on rain, on birds and their nests, etc. ➤ Providing opportunities to respond to the art work done by classmates and by oneself. ➤ Organising discussions on samples of different artefacts, based on questions, 	<ul style="list-style-type: none"> ➤ Children's own experiences, likes and dislikes on natural objects and on artefacts, in the immediate surroundings. ➤ Work done by the child herself/himself and of all her/his classmates. ➤ School garden and school. ➤ Museum or / and art gallery ➤ Placards on different

Responding to the Artefacts and Nature

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>wind, rain, sun and moon, sky, parks, butterflies etc.</p> <ul style="list-style-type: none"> ➤ Different kinds of artefacts: - A brief description. ➤ A visit to a museum: - A description of the artefacts observed. ➤ Appreciation of beauty and variety in nature and of artefacts. ➤ Learn to link an appreciation of skill and reflect to nature and artefacts with learning of other subjects. 	<p>such as;</p> <ul style="list-style-type: none"> ☛ what do I see in this piece of art? ☛ what do I like about it? <ul style="list-style-type: none"> ➤ During a museum visit, children can be provided a well-designed worksheet to facilitate knowing of any one section. For example: <ul style="list-style-type: none"> • How many toys are there in Indus Valley section?' • Which toy did you like the most? ➤ Providing children with an opportunity to arrange their 2-D and 3-D work in the classroom and show appreciation of their work. ➤ Organising guided tour of the school garden and of different sections, to understand their value. <p>➤ Integration with other subjects:</p> <p>Language:</p> <ul style="list-style-type: none"> ➤ Assisting them in composing and narrating a poem/s on any one of their paintings. ➤ Encouraging children to write 5 sentences on the things they like about butterflies/cats/rabbit /chicks etc. <p>EVS:</p> <ul style="list-style-type: none"> ➤ Knowing myself, my family, my neighbourhood. ➤ Making a list of things 'I like' and 'I do not Like' in my immediate surroundings. ➤ Engaging children to learn about cleanliness and beautification of the classroom. 	<p>objects and situations from nature.</p> <ul style="list-style-type: none"> ➤ Children's scrap books. ➤ Samples/images of different artefacts. ➤ Collection and display of age appropriate art tools and materials in the class. ➤ Display boards with theme based displays.

Life Skills: Keeping surroundings neat and clean, appreciating beauty and working together.

Learning Outcomes:

Children will be able to:

- ✔ describe the objects, scenes and situations of their liking in the immediate surroundings;
- ✔ respond to the good in art work done by their classmates and self;
- ✔ appreciate nature and natural beauty based on form, colours, composition, etc.; such as plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day;
- ✔ describe artefacts of different kinds; paintings, pottery, terracotta and sculptures, installations, etc. of known artists;
- ✔ write their experiences of the art museum, by explaining artefacts seen;
- ✔ demonstrate use of extended vocabulary related to the theme;
- ✔ link the knowledge of appreciation and responding to the nature and to the artefacts with learning of other subjects.

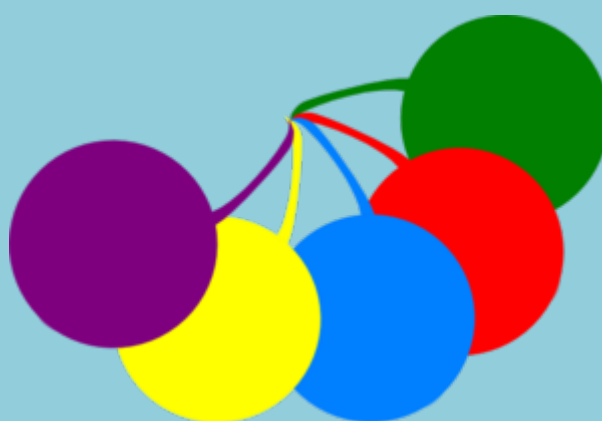
Responding to the Artefacts and Nature

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<ul style="list-style-type: none"> ➤ Objects, scenes and situations of his / her liking in the immediate surroundings: - a brief description. ➤ Art work done by oneself and classmates: – their reflections ➤ Nature and natural beauty based on form, colours, composition, etc.; such as plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day, etc.: - An appreciation. ➤ Artefacts of different kind; paintings, photographs, pottery / ceramics, terracotta and sculptures, installations, etc. of known artists: - A brief description ➤ A visit to the art museum: - 	<ul style="list-style-type: none"> ➤ Providing opportunities to children and encouraging them to explore and experience the beauty of nature and natural objects in their immediate surroundings. ➤ Conducting individual or/and group presentations of their experiences/appreciation on scenes of their liking. ➤ Providing opportunities to record and share self/ peer assessment of art activities/ experiences, periodically. Worksheet/s on appreciation of nature and its beauty and on specific theme/s, such as; plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day, etc. ➤ Conducting Visual thinking sessions on paintings, photographs, pottery and ceramics, terracotta and sculpture, installations, etc. of known artists. ➤ Presenting a well-designed worksheet on museum and gallery visits to facilitate appreciation of any one 	<ul style="list-style-type: none"> ➤ Children's own experiences, likes and dislikes on nature and natural objects, on artefacts and architectural sites in the immediate surroundings. ➤ Art work of every child in the class. ➤ Museums and Art Galleries. ➤ -Samples/replicas of artists work in 2-D and 3-D, pictures or videos of artists' work. ➤ Childrens' Scrap books. ➤ Collection and display of age appropriate art tools and materials in the class. ➤ Display boards with theme based display of children work and/or artist work.

Responding to the Artefacts and Nature

Key Concepts	Suggested Transactional Processes	Suggested Learning Resources
<p>Narration of the experience describing the artefacts observed.</p> <p>➤ Link the experience and skills with appreciation and learning of other subjects.</p>	<p>section. For example, 'Make a sketch of the Harrappan terracotta, and describe its beauty in five lines'.</p> <p>➤ Providing guided tour to the museum/s and art galleries.</p> <p>Integration with other subjects:</p> <p>Language:</p> <p>➤ Assisting them in illustrating one story from his/her course book.</p> <p>➤ -Writing 10 sentences describing the weather in any one of your drawing/painting.</p> <p>Science/ SST:</p> <p>➤ Knowing myself, my family, my neighbourhood.</p> <p>➤ Encouraging children to make a list of things 'I like' and 'I do not Like' in my immediate surroundings.</p> <p>➤ Engaging children in classroom display/s to learn cleanliness and beautification.</p>	

Life Skills: Appreciate natural beauty



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