

#### CURRICULUM

#### <u>OVERVIEW</u>

Any good curriculum should meet the needs of the learner, both of the present and the future, in the context of the knowledge and skills requirement of the 21st century. A general and comprehensive school education will establish a strong platform and foundation not only for higher studies leading to a career, but also overall empowerment of the individual for a meaningful life.

The focus in our curriculum is not on the delivery and memorization of content but on the understanding of concepts and the development of skills as appropriate to each subject domain, specifically, the 21st century skills i.e. four Cs, Collaboration, Critical thinking, Communication, Creativity. Critical thinking envisages a focus not on memorization and rote learning but on the Higher Order Thinking Skills i.e. understanding, application, analysis, synthesis, evaluation and creativity. Classroom practice will reflect this new focus. Collaboration and independent learning will become more important skills of an empowered learner rather than memorization.

#### <u>OBJECTIVES</u>

- To promote the active involvement of children in a learning process that is imaginative and stimulating.
- To enable children to work independently and also collaboratively.
- To explore concepts using tools of scientific enquiry and information technology
- To set suitable learning challenges and respond to pupil's diverse learning needs.
- To provide a variety of learning experiences.
- To overcome potential barriers to learning and assessment for individuals and groups of pupils.

- 2 -

#### STATEMENTS

Our mission is to enable **"learning for life"** in a safe environment which is inspirational; fun filled and nurtures inquisitive minds.

Teaching and learning is the core purpose of our school. The purpose of this booklet is to help parents understand what is expected of students in Grade 5 in the core subject areas of English, Hindi, Mathematics and EVS.

It provides a listing of concepts to be taught and skills to be developed in Grade 5. Suggestive list of tools is also provided to help your child learn at home. The curriculum incorporates new content and embraces new approaches and methodologies.

- 3 -

## **ENGLISH**

#### <u>OVERVIEW</u>

As English is the medium of instruction, development of competence in English enables the accelerated learning of other subjects also. The emphasis is on the development of fluency with the balance of all skills i.e. listening, speaking, reading, writing and also refining the student's ability to express himself by focusing on Higher Order Thinking Skills transacted through the medium of English. To further enhance these skills extended activity is given for practice at home.

#### OBJECTIVES OF TEACHING ENGLISH

# By the end of Grade 5 the students will be able to::

- Listen to level appropriate concrete and abstract passages and answer complex questions involving higher order thinking skills related to the various aspects of the passage.
- Read, understand and appreciate literary texts and concepts like Adventure, Imaginative writing, Short story, Lyrical poem, Narrative poem, Play, Memoir, Personification and Folktales etc.
- Express their own as well as other's ideas in refined phrases, expressions and vocabulary clearly in both written and spoken form through Debates, Extempore, Group Discussions, Role Plays and Public Speaking.
- Write self composed answers to questions from the text involving analysis, evaluation and synthesis.
- Write Articles, Leave Applications, Dialogues, Plays, E- mails, Diary Entries, Paragraphs, Stories etc as per their ideal formats and structures.
- Develop Skills like Observation, Data Collection, Interpretation and Inference during Project Work while also giving them an opportunity to work in real life situations.
- To appreciate literary texts and poetry based on an understanding of complex literary devices like Onomatopoeia, Similes, Metaphors, Personification, Rhyme Scheme, Alliteration, Assonance etc.
- To reinforce functional grammar concepts through picture prompts, situations, conversations, error corrections and editing exercises.
- To enrich their vocabulary and dictionary skills by using the dictionary effectively in finding the meanings, synonyms, antonyms and correct spellings of new words / level appropriate words.

- 4 -

Month	Concepts	Skills The
	_	student will be able to:
April	<ul> <li>Short story-Sequence of events</li> <li>Functional grammar practice</li> <li>LSRW skills</li> <li>Vocabulary</li> </ul>	<ul> <li>listen to a short story and describe the hero of the story in his / her own words</li> <li>speak for a minute about his favorite short story</li> <li>read and infer the meanings of unfamiliar words</li> <li>make a list of the main events of the story in a sequence using new vocabulary of his/her own.</li> <li>distinguish between various parts of speech to be used in creative writing.</li> <li>distinguish between subject and predicate in a sentence.</li> <li>make sentences using various kinds of nouns</li> </ul>
		Character Sketch
June	<ul> <li>Personification</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to a poem to recite it with correct intonations</li> <li>appreciate poetry and identify the poetic devices used by the poet</li> <li>discuss and share new ideas and thoughts on Personification</li> <li>identify visual and auditory imagery used in a poem</li> <li>read an unseen poem and answer questions based on higher order thinking skills</li> <li>describe a picture with correct subject-verb agreement</li> <li>use three forms of verbs in creative writing</li> <li>rearrange the jumbled words and write sentences correctly</li> </ul>
July	<ul> <li>Imaginative Writing</li> <li>Rhyme Scheme</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to the pronunciation of new words used in Imaginative Writing and Rhyme Scheme and repeat them correctly</li> <li>listen to a set of instructions and repeat them in a sequence</li> <li>read fluently with correct intonation and infer the meanings of unfamiliar words</li> <li>read the poem aloud using the right beats</li> <li>identify the given picture and speak about it</li> <li>use adverbs in sentences of their own</li> </ul>

- 5 -

Month	Concepts	Skills The
		student will be able to:
July		<ul> <li>identify various punctuation marks and use them effectively for reading and creative writing</li> <li>write a poem of about 8-10 lines using his own rhyme scheme and read it aloud</li> <li>write his / her own story based on imagination in about 80-100 words giving a suitable title</li> <li>appreciate Imaginative Writing developing an insight about the author and his / her writing style</li> </ul>
August	<ul> <li>Adventure</li> <li>Functional grammar Practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to an Adventure Story to narrate the important events in a sequence.</li> <li>summarize the plot and describe the characters.</li> <li>look at the given picture and speak a paragraph about it</li> <li>read to understand the central idea and identify the author's purpose of writing an adventure story</li> <li>write a diary entry expressing his/her thoughts and opinions</li> <li>write a leave application/casual application to school authorities in different situations</li> <li>involve in discussion and group sharing for demonstrating the use of Present and Past tense</li> <li>identify Simple Present and Simple Past Tense, Present Continuous and Past Continuous Tense in a text</li> <li>use the above tenses in creative writing</li> </ul>
September	<ul> <li>Lyrical Poem</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>edit a passage using the right tense</li> <li>listen to a Lyrical Poem and try to identify the poetic devices used</li> <li>identify the theme of the lyrical poem and speak about it</li> <li>read the given poem with clarity and expression</li> <li>relate a Lyrical Poem to personal experiences and values</li> <li>debate on a given topic showing his/her agreement and disagreement</li> <li>describe the given pictures using correct Prepositions</li> <li>write creatively on a given topic and underline the prepositions used</li> </ul>

- 6 -

Month	Concepts	Skills The student will be able to:
October	<ul> <li>Folk tale- plot, characterization and moral</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to a Folk tale and describe the hero of the story in his/her own words</li> <li>speak for a minute about his/her favorite Folk-tale</li> <li>read and review a Folk-tale describing the plot, characters, climax and moral</li> <li>weave a Folk-tale and narrate it</li> <li>use appropriate conjunctions like and, but, or, because, while, since and for in writing a paragraph</li> </ul>
November	<ul> <li>Narrative Poem</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>write a story using the given story outline or ideas</li> <li>listen to a Narrative Poem and appreciate it</li> <li>speak impromptu on the given topic</li> <li>read a Narrative Poem to appreciate it and identify the poetic devices used by the poet</li> <li>write a short story using various degrees of adjectives</li> <li>identify phrasal verbs and use them in sentences of their own</li> </ul>
December	<ul> <li>Memoir</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to a Memoir of a famous personality and draw conclusions</li> <li>narrate a Memoir using correct intonation</li> <li>read through an unseen Memoir and puzzle out meanings of unfamiliar words</li> <li>apply the concept of Reported Speech in converting Direct to Indirect Speech</li> </ul>
January	<ul> <li>Play</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>concentrate and listen to a story</li> <li>write answers after listening to the story</li> <li>speak impromptu on the given topic</li> <li>read and review a play describing the plot, characters, climax and moral</li> <li>enact a Play</li> <li>write an e-mail</li> <li>determine the use of definite articles/indefinite articles in creative writing</li> </ul>

Month	Concepts	Skills The student will be able to:
February	<ul> <li>Extra Reading</li> <li>Functional grammar practice</li> <li>LSRW skills</li> </ul>	<ul> <li>listen to a piece of audio aid and discuss about the topic</li> <li>read the text for literary analysis, understand the moral and draw conclusions</li> <li>write an informal descriptive e-mail to a friend as per the format</li> <li>learn to organize points in a structured paragraph</li> <li>edit a passage applying his/her knowledge of grammar concepts</li> </ul>

#### SUGGESTIVE TOOLS FOR ENGLISH

<u>LISTENING</u> <u>SKILLS</u>	<u>SPEAKING SKILLS</u>	<u>READING SKILLS</u>	<u>WRITING SKILLS</u>	<u>ACTIVITIES</u> <u>/PROJECTS</u>
<ul> <li>Narration of a story</li> <li>Comprehension Taskş</li> <li>Memory Games and Interactive Activities</li> <li>Syllable Counting</li> <li>Word Stress</li> <li>Tongue Twisters</li> <li>Scripted Conversations</li> <li>Information transfer activities</li> <li>Listen and fill in the gap of a sentence</li> <li>True or False</li> <li>Short/Long Conversation</li> <li>English Pronunciation</li> </ul>	<ul> <li>Public Speaking</li> <li>Debate</li> <li>Extempore</li> <li>Role Play</li> <li>Skit</li> <li>Group Discussion</li> <li>Story Completion/Telling</li> <li>Picture Description</li> </ul>	<ul> <li>Picture Reading</li> <li>Unseen Passage / Poem for Reading Comprehension</li> <li>Extra Reading</li> </ul>	<ul> <li>Picture Description</li> <li>Letter Writing</li> <li>Paragraph Writing</li> <li>E-mail Writing</li> <li>Designing a Poster</li> <li>Writing a Poem</li> <li>Writing Slogans</li> <li>Message Writing</li> <li>Note Writing</li> <li>Describing a Field Visit</li> <li>Describing a story</li> <li>Journals</li> </ul>	<ul> <li>Field Trips</li> <li>Quiz</li> <li>Drafting a</li> <li>Questionnaire</li> <li>Questionnaire</li> <li>Group Discussions</li> <li>Designing a</li> <li>Poster</li> <li>Enacting a play</li> <li>Writing a Book</li> <li>Review</li> <li>Public Speaking</li> </ul>

- 8 -

# HINDI

#### प्रस्तावनाः

शिक्षार्थियों को राष्ट्रभाषा हिंदी का अध्यापन साहित्यिक, सांस्कृतिक, सौंदर्यात्मक एवं व्यावहारिक भाषा के रूप में इस प्रकार करवाया जाएगा ताकि शिक्षार्थियों की पहचान बन सके, उनमें आत्मविश्वास हो, हिंदी भाषा उनके विचार–विमर्श की भाषा बन सके। विद्यार्थी भाषा के लिखित प्रयोग के साथ–साथ सहज और स्वाभाविक रूप से मौखिक अभिव्यक्ति में भी सक्षम हो सकें, इतना ही नहीं वे विभिन्न विधाओं और अभिव्यक्ति की अनेक शैलियों से परिचित हो सकें। शिक्षार्थी हिंदी भाषा में दक्ष होकर अन्य विषयों के साथ अंतर्सबंध स्थापित करके वैश्विक क्षितिज तक पहुँच सकें। विस्तृत गतिविधि गृहकार्य में अभ्यास हेतु दी जाती है।

#### उद्देश्यः

विद्यार्थी सत्रांत तक हिंदी विषय के निम्न उद्देश्यों को समझ सकेंगे।

- शिक्षार्थी गद्य की विधाओं कहानी, लेख, एकांकी को पढ़कर समझने लगेंगे।
- शिक्षार्थी पद्य की विधाओं कविता एवं दोहों के अर्थ को समझने लगेंगे।
- शिक्षार्थी मौखिक भाषिक अभ्यास के लिए— कविता, कहानी, चित्र वर्णन, अभिनय, भाषण आदि को बोल एवं समझ सकेंगे।
- शिक्षार्थी सुलेख, श्रुतलेख, अनुलेख द्वारा शुद्ध लेखन एवं वर्तनीगत अशुद्धियों को ठीक कर सकेंगे।
- शिक्षार्थियों को लिखित भाषिक अभ्यास के लिए– संज्ञा, सर्वनाम, विशेषण, क्रिया, वचन, लिंग, कारक, काल, प्रत्यय उपसर्ग, विलोम शब्द, पर्यायवाची शब्द, तत्सम–तद्भव शब्द आदि का ज्ञान होगा।
- शिक्षार्थियों को विषयपरक प्रश्न, मूल्यपरक प्रश्न, उच्च बौद्धिक क्षमता प्रश्न, समस्या समाधान प्रश्नों का ज्ञान होगा।
- शिक्षार्थियों में पत्र लेखन, अनुच्छेद लेखन, नैतिक मूल्य उद्घोष लेखन एवं सृजन कौशल की अभिवृद्धि होगी।
- शिक्षार्थियों में पाठ्यक्रम के अतिरिक्त पुस्तकों के वाचन से भाषा बोध का विस्तार एवं संवर्धन होगा साथ ही उनमें पठन एवं वाचन के प्रति रुचि जाग्रत होगी।

- 9 -

माह	अवधारणा	कौशल श्रवण — कथन — पठन — लेखन — कौशल
अप्रैल	• तुकांत कविता	<ul> <li>कविता का वाचन कर उसके संदेश को समझना</li> </ul>
	• व्यावहारिक व्याकरण	<ul> <li>कविता का मूलभाव लिखना</li> </ul>
	• वर्ण विचार	<ul> <li>तुकांत काव्य पंक्तियों की रचना</li> </ul>
		<ul> <li>शब्द संपदा में वृद्धि</li> </ul>
		• वर्तनी सुधार, काव्य गोष्ठी
		• समस्या समाधान प्रश्नों का लेखन
		• अनुस्वार, अनुनासिक
		• विसर्ग, आगत ध्वनि से शब्द रचना
		<ul> <li>संयुक्त एवं पंचम वर्ण</li> </ul>
		• ड, ड़, ढ, ढ़ में अंतर
जून	• शिक्षाप्रद कहानी	<ul> <li>नीतिगत कहानियाँ पढ़ना, सुनना एवं सुनाना</li> </ul>
	• व्यावहारिक व्याकरण	• शुद्ध उच्चारण, भाव एवं प्रवाह के साथ कहानी का वाचन
	• वर्ण विचार, पत्र लेखन	• मूल्यपरक प्रश्नों के उत्तर लिखना
		<ul> <li>नैतिक मूल्यों पर आधारित सूक्तियाँ लिखना</li> </ul>
		• शब्द संपदा
		• वर्तनी सुधार
		• वर्ण विच्छेद
		<ul> <li>मित्रों एवं संबंधियों को पत्र</li> </ul>
जुलाई	• संवाद	<ul> <li>एकांकी के पठन द्वारा संवादों का भावपूर्ण पठन</li> </ul>
	• हास्य लघु नाटिका	<ul> <li>विभिन्न विषयों पर संवादों की अभिनयात्मक प्रस्तुति</li> </ul>
	• व्यावहारिक व्याकरण	<ul> <li>निर्देशानुसार (विषय के अनुरूप) संवाद लेखन</li> </ul>
	<ul> <li>वर्ण विचार व संज्ञा</li> </ul>	<ul> <li>उच्च बौद्धिक क्षमता के प्रश्न</li> </ul>
		<ul> <li>शब्द संपदा में वृद्धि, वर्तनी सुधार</li> </ul>
		<ul> <li>'ऋ' की मात्रा और 'र' के रूप, संज्ञा भेद, उपसर्ग</li> </ul>
अगस्त	<ul> <li>भाव एवं ओज प्रधानगीत</li> </ul>	<ul> <li>देशभक्ति गीत की लयबद्ध प्रस्तुति</li> </ul>
	• व्यावहारिक व्याकरण	<ul> <li>दोहों एवं गीत का मूलभाव समझना एवं लिखना</li> </ul>
	• शब्द विचार	• तत्सम—तद्भव शब्दों का ज्ञान
		<ul> <li>शब्द संपदा में वृद्धि</li> </ul>
		• वर्तनी सुधार
		<ul> <li>मूल्य परक प्रश्नों के उत्तर लिखना</li> </ul>
		<ul> <li>लिंग, वचन, विशेषण एवं भाववाचक संज्ञा में अंतर, प्रत्यय।</li> </ul>

माह	अवधारणा	कौशल	
		श्रवण — कथन — पठन — लेखन — कौशल	
सितंबर	• व्यक्तित्व परक लेख	• उचित आरोह–अवरोह के साथ लेख का पठन	
	• व्यावहारिक व्याकरण	• विषयपरक मौखिक प्रश्न	
		<ul> <li>प्रेरक व्यक्तित्वों पर चर्चा एवं विभिन्न व्यक्तित्वों का</li> </ul>	
		चरित्र—चित्रण	
		<ul> <li>संक्षिप्त जीवनी लेखन</li> </ul>	
		• शब्द संपदा	
		• वर्तनी सुधार	
		<ul> <li>मूल्यपरक एवं उच्च बौद्धिक क्षमता के प्रश्न</li> </ul>	
		• सर्वनाम के भेद	
		• विराम चिहन	
		• योजक शब्द	
अक्टूबर	• संवेदना प्रधान लेख	<ul> <li>लेख एवं कहानी के पठन द्वारा प्राणी मात्र के प्रति प्रेम करूणा</li> </ul>	
	• संवेदना प्रधान कहानी	एवं सतर्कता का विकास	
	• व्यावहारिक व्याकरण	<ul> <li>शब्द संपदा में वृद्धि</li> </ul>	
		<ul> <li>संबंधित विषय पर समूह चर्चा</li> </ul>	
		• अनुच्छेद लेखन	
		<ul> <li>कहानी पूर्ण करना (संकेतों के आधार पर)</li> </ul>	
		<ul> <li>उच्च बौद्धिक क्षमता के प्रश्न</li> </ul>	
		• वर्तनी सुधार ।	
		<ul> <li>क्रिया एवं क्रिया विशेषण</li> </ul>	
नवंबर	• प्रेरक प्रसंग	<ul> <li>प्रेरक प्रसंगों के पठन द्वारा सकारात्मक सोच, आत्मविश्वाास</li> </ul>	
	• चित्र कथा	एवं कर्त्तव्यबोध का विकास	
	• व्यावहारिक व्याकरण	<ul> <li>शब्द संपदा में वृद्धि</li> </ul>	
		<ul> <li>संस्मरण लेखन, प्रसंगों से प्राप्त शिक्षा लेखन</li> </ul>	
		<ul> <li>मूल्यपरक प्रश्न, कहानी को चित्रकथा में रूपांतरित करना</li> </ul>	
		• वाक्य रचना, वर्तनी सुधार	
		<ul> <li>कारक — विभक्तियाँ एवं प्रयोग</li> </ul>	
दिसंबर	<ul> <li>विचार प्रधान कहानी</li> </ul>	<ul> <li>शुद्ध उच्चारण, भाव एवं प्रवाह के साथ कहानी पठन</li> </ul>	
	• व्यावहारिक व्याकरण	<ul> <li>शब्द संपदा में वृद्धि</li> </ul>	
	• वाक्य विचार	<ul> <li>चिंतन शक्ति पर आधारित प्रश्न</li> </ul>	
		• अनुच्छेद लेखन	
		<ul> <li>सामाजिक समस्याएँ व समाधान पर चर्चा</li> </ul>	
		• वर्तनी सुधार	
		• प्रश्न वाचक, निषेधात्मक, सरल व संयुक्त वाक्य	

- 11 -

माह	अवधारणा	कौशल
		श्रवण — कथन — पठन — लेखन — कौशल
जनवरी	<ul> <li>रोमांचक कहानी</li> </ul>	• साहस और वीरता, निर्भीकता, त्वरित बुद्धि, परिस्थिति के
	• व्यावहारिक व्याकरण	अनुकूल निर्णय लेने की क्षमता का विकास करना
		<ul> <li>साहसिक घटनाओं का उल्लेख करना</li> </ul>
		<ul> <li>अपूर्ण कहानी को रोमांचक घटना द्वारा पूर्ण करना</li> </ul>
		• साहसिक और रोमांचक कार्य करने वाले व्यक्तियों की जानकारी
		• काल और उसके भेद
फरवरी	• प्रेरक कविता	<ul> <li>जीवन को नई दिशा देने वाले जीवन मूल्यों, संघर्ष, लक्ष्य—</li> </ul>
	• व्यावहारिक व्याकरण	प्राप्ति, स्फूर्ति, चुनौती, सतर्कता और परिश्रम पर कविताएँ पढ़ना
	• वर्ण विचार	और उनके आधार पर स्व–रचित कविताएँ लिखना
	• शब्द विचार	• वर्ण विच्छेद, वर्तनी सुधार
	• वाक्य विचार	<ul> <li>संज्ञा, सर्वनाम, विशेषण, क्रिया व क्रिया विशेषण को अनुच्छेदों में</li> </ul>
		से ढूँढ़कर अलग करना
		• वाक्यों को शुद्ध करना

- 12 -

### प्रस्तावित रचनात्मक कौशल एवं गfrfof/k; kj

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- 13 -

# MATHEMATICS

#### <u>OVERVIEW</u>

In Mathematics, understanding of concepts becomes an essential prerequisite in the development of the skills. Teachers ensure that students apply the concepts in real life situations. Daily practice in solving Math problems is provided for within the school timetable and extended activities are given for practice at home.

#### OBJECTIVES OF TEACHING MATHEMATICS

#### By the end of Grade 5, Students will be able to:

- Develop skills of construction for example, circle, triangle, polygon, various kinds of angles and graphs of suitable measurement.
- Apply mathematical concepts, logics and reasons for proving results of appropriate problems.
- Make calculations with accuracy involving concept of time, fractions and percentage.
- Identify symmetrical shapes and draw solid shapes or figures using concept of symmetry.
- Draw different types of graphs (like circle graph, line graph) by using given data.
- Make higher level calculations and solve problems involving fractions.
- Make calculations of profit and loss in real life situations.

- 14 -

Month	Concepts	Skills The students will be able to:
April	Large Numbers         • Recapitulation of 5 and 6-digit numbers         • Introduction to large numbers         • Place value and expanded form         • Indian and International system of numeration         • Build numbers         • Comparing and rounding off large numbers         • Rules for writing Roman numerals         • Converting Hindu-Arabic numerals to Roman numerals and vice- versa <b>Fundamental Operations</b> • Properties of addition and subtraction         • Addition and subtraction of large numbers         • Story sums	<ul> <li>read and write numbers upto 8-digits</li> <li>read and write numbers in Indian and International system</li> <li>write large numbers in expanded and standard notation</li> <li>build the greatest and the smallest numbers</li> <li>compare and round off large numbers</li> <li>write Hindu-Arabic numeral for the given Roman numeral and vice versa</li> <li>Recapitulate the properties of addition and subtraction</li> <li>Solve sums based on addition and subtraction of large numberss</li> <li>Find missing digits in addition and Subtraction problems</li> <li>apply the concept of addition and subtraction in solving daily life problems</li> </ul>
June	<ul> <li><u>Fundamental Operations</u></li> <li>Properties of multiplication and division</li> <li>Multiplication &amp; division of large numbers</li> <li>Division by 3 -digit divisor</li> <li>Story sums</li> <li>BODMAS</li> </ul>	<ul> <li>Recapitulate the properties of multiplication and division</li> <li>Multiplication by 2 and 3-digit numbers</li> <li>divide large numbers by a 2-digit divisor</li> <li>apply the concept of multiplication and division in solving daily life problems</li> <li>solve problems involving one or more operations</li> </ul>
July	Factors and Multiples• Properties of factors• Finding factors of a given number• Prime factorization• HCF• Divisibility rules• Properties of multiples• Finding multiples of a given number• LCM	<ul> <li>define factors and list them for a given number</li> <li>identify prime and composite numbers</li> <li>find HCF of the given numbers</li> <li>find the divisibility of a number by 2, 3, 4, 5, 6, 9,10, 12 and 15</li> <li>define multiples and list them for a given number</li> <li>find LCM of the given numbers</li> </ul>

- 15 -

Month	Concepts	Skills The students will be able to:
August	<ul> <li><u>Fractions</u></li> <li>Fraction and its types</li> <li>Equivalent fractions</li> <li>Types of fractions</li> <li>Reducing a fraction to its simplest form</li> <li>Addition &amp; subtraction of fractions</li> <li>Comparison of fractions</li> <li>Reduce a fraction to its simplest form</li> <li>Addition and subtraction of fractions and mixed numbers</li> <li>Multiplication and division of a fraction</li> <li>Dividing a whole number by a fraction</li> <li>Conversion</li> </ul>	<ul> <li>Discuss the examples of fractions in everyday situations</li> <li>Explain the meaning of equivalent fractions</li> <li>Find the equivalent fractions of the given fractions</li> <li>Explain and identify the different types of fractions</li> <li>Reduce the fractions to lowest term</li> <li>Compare two or more fractions</li> <li>multiply and divide fraction by a whole number and vice versa</li> <li>write fractional part of a whole number</li> <li>Convert mixed to improper and vice versa</li> </ul>
September	<ul> <li>Decimals</li> <li>Decimal place value and chart</li> <li>Expanded and Standard notation</li> <li>Converting decimals to fractions and viceversa</li> <li>Equivalent decimals</li> <li>Comparison of decimals</li> <li>addition and subtraction of decimals</li> <li>Multiplication and Division of decimals by 10,100, and 1000</li> </ul>	<ul> <li>define decimal numbers and state place value of a digit in a decimal number</li> <li>express the given decimals in expanded form and standard form</li> <li>Learn conversion in decimals</li> <li>define like, unlike and equivalent decimal numbers</li> <li>Compare and order decimals</li> <li>add and subtract decimal numbers</li> <li>multiply and divide decimal numbers by 10,100, and 1000</li> </ul>
October October	GeometryPoint, line, line segment, ray and planeTypes of linesAngles and its typesMeasurement of anglesClassification of trianglesCircleSymmetry and PatternsReflection SymmetryTessellationRotational SymmetryPattern in numbers	<ul> <li>draw different types of line and name them</li> <li>define angles</li> <li>classify the angles</li> <li>measure and draw different types of angles</li> <li>define and draw different types of triangles</li> <li>draw circle usimg a compass</li> <li>identify symmetry in shapes and figures</li> <li>identify different types of patterns</li> </ul>
November	Data Handling• Pictograph• Bar graph• Cine araph	<ul> <li>recapitulation of pictographs</li> <li>read the given bar graph and line graph</li> <li>draw a given bar graph and line graph</li> </ul>

- 16 -

Tally chart	<ul><li> double bar graph</li><li> building a tally chart</li></ul>
<ul> <li>Money and its related terms</li> <li>Profit and Loss</li> <li>Unitary Methods</li> </ul>	<ul> <li>explain the terms cost price, selling price, profit and loss.</li> <li>Solve questions based on profit and loss</li> <li>define and apply unitary method to solve real-world problems</li> </ul>

Month	Concepts	Skills The students will be able to:
December	<ul> <li><u>Perimeter, Area, Volume and Maps</u></li> <li>Perimeter</li> <li>Area</li> <li>Volume</li> </ul>	<ul> <li>define perimeter, area and volume</li> <li>find perimeter of a rectangle, square and triangle</li> <li>Area on square grid</li> <li>find area of rectangle and square</li> <li>find area of irregular shapes</li> <li>calculate volume and capacity</li> </ul>
January	<ul> <li><u>Metric Measures</u></li> <li>Measurement of length, mass and</li> <li>capacity</li> <li>Place Value Chart</li> <li>Conversion of higher units to lower units and vice-versa</li> <li>Four basic operations on metric measures</li> </ul>	<ul> <li>choose proper unit of measurement as per the requirement</li> <li>understand metric measures using place value chart</li> <li>convert higher units into lower units and vice-versa</li> <li>apply four basic operations on metric measures</li> </ul>
February	<u>Time</u> ClockConversion of units of TimeCalendar24-hour time notationOperations on measures of timeTime duration	<ul> <li>recall clock</li> <li>convert the larger units of time into smaller units and vice-versa</li> <li>calculating days</li> <li>convert 12-hour time to 24-hour clock time and vice versa</li> <li>carry out addition and subtraction of time</li> <li>find the time duration</li> </ul>

## List of suggestive tools for Maths

- Chart Making
- Data Collection
- Educational games
- Group Activities
- HOTS
- Lab Activities

- 18 -

- Life Skills
- MCQs,
- Oral questions
- Pen Paper Test
- Problem Solving
- Project (group / individual)
- Quiz
- Research

# **ENVIRONMENTAL STUDIES**

#### OVERVIEW

Today we are in an age of explosion of information. In this context, memorization of content in Science and Social Studies is a futile exercise. The scientific skills i.e. the skills of observation, inquiry, recording, investigation, analysis, hypothesis and drawing conclusions etc. are the key scientific skills that can be extrapolated to the study of other topics. Social Studies also helps the students to understand the complex integration of social institutions and phenomenon and to trace how civilization and social institutions have developed. This enables them to become proactive citizens and empowered individuals who have a deeper understanding of their own complex environment as they have evolved through centuries, not just of their local environmental studies but also of the world. Extended activity is given for practice at home.

#### **OBJECTIVES**

#### By the end of Grade 5 the students will be able to: -

- Distinguish between deficiency diseases and contagious diseases and compare various air and water borne diseases and their prevention.
- Classify food items on the basis of their importance for body building, energy giving and providing protection against diseases and relate it to healthy diets.
- Assess the damage caused by natural calamities, suggest precautions and strategies for disaster management.
- Discuss various environmental issues like global warming, green house effect and ozone layer depletion and the need to protect the environment.
- Distinguish between the types of maps, read the maps and locate places in the globe.
- Apply the skills of scientific enquiry by using technology to explore concepts related to the celestial bodies.

- 20 -

Month	Concepts	Skills The	
		student will be able to:	
April	Components of food		
	<ul> <li>Nutrients of food</li> <li>Shortage of food</li> <li>Preservation of food</li> <li>Deficiency diseases</li> </ul>	<ul> <li>explain the concept of healthy eating and create their own definitions of healthy habits</li> <li>classify food in terms of their nutritional values</li> <li>collect the information about the reasons of shortage of food</li> <li>describe effects of food scarcity on health and wellbeing of society and suggest solutions</li> <li>list and explain methods of food preservation and recognize the danger of invisible dirt (bacteria and moulds)</li> <li>become familiar with hygienic routines while preparing food</li> <li>classify the different types of deficiency diseases</li> </ul>	
June	Migration		
	<ul> <li>Transition</li> <li>Displacement</li> <li>Impact of transition</li> <li>Changing family structure</li> </ul>	<ul> <li>discuss the problems faced by migrants and suggest solutions</li> <li>distinguish between migration and displacement</li> <li>discuss and discover the reasons of changing family structure</li> </ul>	
July	Birth of a new plant		
	<ul> <li>Structure of seed</li> <li>Germination</li> <li>Reproduction in plants</li> <li>Dispersal of seed</li> <li>Photosynthesis</li> <li>Interesting plants</li> <li>Type of plants</li> </ul>	<ul> <li>observe, analyze and perform simple experiments in germination</li> <li>explain the life cycle that includes sprouting; developing roots, stems, leaves and flowers, reproducing and eventually dying</li> <li>observe, record and differentiate between the life cycle of plants and animals</li> <li>demonstrate and explain the basic requirements for germination and plant growth through</li> </ul>	

Month	Concepts	Skills The
		student will be able to:
July		<ul> <li>explore the effect of water, temperature and light on seed germination</li> <li>discover that the requirements for germination will vary for different seeds</li> <li>explain the role of photosynthesis in sustaining life on the earth</li> <li>explain the relationship between plants and animals in the oxygen- carbon dioxide cycle</li> <li>identify the different methods of seed dispersal</li> <li>explain how plants adapt to their environment by dispersing their seeds by various methods</li> <li>explain the role seed dispersal plays in the reproduction process of trees</li> <li>observe and collect information of some interesting plants and explain how they are different</li> </ul>
	<ul> <li>Forest</li> <li>Afforestation</li> <li>Deforestation</li> <li>Importance of forest</li> <li>Conservation of forest</li> <li>Tribes</li> <li>Threats faced by tribal communities</li> </ul>	<ul> <li>differentiate between afforestation and deforestation</li> <li>explain how deforestation has become a problem and suggest solutions</li> <li>evaluate many benefits that trees provide to the community</li> <li>creatively express their positive feelings about forests</li> </ul>

## - 22 -

Month	Concepts	Skills The student will be able to:	
Яugust September	<ul> <li>From field to plate</li> <li>Cultivation of crops</li> <li>Stages of farming</li> <li>Mixed cropping</li> <li>Crop rotation</li> <li>Types of farming</li> <li>Changing food habits</li> </ul> Animals in our lives <ul> <li>Amazing senses of animals</li> <li>Conservation of animals</li> <li>Social behavior in animals</li> <li>Extinct animals</li> <li>Animal products we use</li> <li>Importance of animals</li> <li>Aquatic animals</li> </ul>	<ul> <li>explain how satellites assist farmers and make farming more efficient</li> <li>research the new techniques to improve crop production</li> <li>identify major influences on food choice and give specific examples of each</li> <li>identify the reasons responsible for changes in food habits of people/society</li> <li>explain how our changing food habits affect the local farmers</li> <li>discuss the importance of animals to maintain the balance in nature</li> <li>learn the social behavior shown by insects</li> <li>find out the reasons responsible for the extinction of animals</li> <li>evaluate how animals are useful and how human beings misuse them for their selfish needs</li> <li>search, list and identify the special features of aquatic animals</li> </ul>	
October	<ul> <li>Maps and Globes</li> <li>Political, Physical and Thematic map</li> <li>Directions, signs and symbols, scale</li> <li>Imaginary lines on the earth</li> </ul>	<ul> <li>distinguish between different types of maps and locate places in the map</li> <li>understand and explain how a scale is used in the map</li> <li>identify signs and symbols used in the maps</li> <li>draw a map</li> <li>search and compare the imaginary lines equator, axis, prime meridian in the globe and find the location of countries using latitude and longitude</li> </ul>	

## - 23 -

Month	Concepts	Skills	
		The student will be able to:	
November	Our Universe <ul> <li>Celestial bodies</li> <li>Constellation</li> <li>Comets, meteors and asteroids</li> <li>Natural and artificial satellites</li> </ul>	<ul> <li>identify and label various celestial bodies seen in the sky</li> <li>define and compare celestial bodies like comets, meteors and asteroids</li> <li>differentiate between natural and artificial satellite</li> <li>list the uses of man-made satellites in our day to day life</li> </ul>	
December	<ul> <li>Nature's Fury</li> <li>Natural calamities</li> <li>Effects and precautions</li> <li>Emergency help</li> <li>Disaster management</li> </ul>	<ul> <li>analyze the damages caused by natural calamities every year</li> <li>discuss and find methods of precautions</li> <li>search, list and describe the role of government and non government organizations during natural calamities</li> <li>explain the importance of disaster management in everybody's life</li> </ul>	
January February	<ul> <li>Fibre to Fabric</li> <li>Natural fibre</li> <li>Synthetic fibre</li> <li>Making yarns</li> <li>Weaving into fabric</li> </ul> Natural Resources	<ul> <li>distinguish between natural and synthetic fibres</li> <li>identify different kinds of natural fibres</li> <li>search and list various ways of making yarn</li> <li>collect samples of synthetic fabric and categorize them on the basis of lustre and texture</li> </ul>	
	<ul> <li>Types of fuels</li> <li>Renewable and non-renewable resources</li> <li>Conservation of fuels Alternative fuels</li> </ul>	<ul> <li>define and differentiate between types of fuels</li> <li>discuss the need to conserve fossil fuels</li> <li>identify renewable and non-renewable sources of energy search and list various alternative fuels and explain its importance for future generations</li> </ul>	

- 24 -

#### LIST OF SUGGESTIVE TOOLS FOR ENVIRONMENTAL STUDIES

- Observations, recording and interpretation
- Oral questions
- Practical activities and Projects
- Role play and Dramatization
- Pen Paper test
- Group discussion
- Data Collection
- Quiz
- MCQs
- Hands on activities.
- Making Models and explaining the related concepts
- Experiments

- 25 -

# COMPUTERS

#### OVERVIEW

In this age of Information technology, computers are being used in almost every aspect of human existence. The students will use Information Technology as a tool for learning.

#### OBJECTIVES OF TEACHING COMPUTER

#### By the end of Grade 5 The students will be

**able to:** – • To develop understanding of latest technology.

- To create awareness and ethics of usage of technology in day to day life.
- To utilize the techniques they learn in their daily life.
- To use productivity tools to collaborate in constructing models through technology and produce other creativity work.
- To use technology to locate, evaluate and collect information from a variety of sources.
- Demonstrate the ability to give an effective presentation using visual aids and/or software demonstrations.
- Learn and demonstrate standards of professional behavior, including rules of ethics and entiquette.
- Analyze a simple problem and describe procedures to solve that problem
- Explore computer technologies and recognize the value of computer skills for future education and employment.
- Demonstrate the ability to extend current knowledge.

- 26 -

Month		Skills The	Activity
	Concept	students will be able to: –	
April	Microsoft Word	<ul> <li>Headers and footers</li> <li>Drop cap</li> <li>Tab stop</li> <li>Mail Merge</li> </ul>	<ul> <li>Create an article using drop cap and headers and footers utility.</li> <li>Create a birthday Invitation using mail merge utility.</li> </ul>
June	Presentation	<ul> <li>Create a presentation using a</li> <li>template Format slide</li> <li>Use text alignment</li> <li>Use bullets and numbering Use add graphics in presentation</li> <li>Rearrange a slide</li> <li>Set up slide show</li> <li>Use animation</li> </ul>	To create a presentation on a science concept and apply transition and animation effects.
July	Creating hyperlinks	<ul> <li>Create a presentation</li> <li>Create a presentation using themes</li> <li>Use photo album</li> <li>Use slide master</li> <li>Create hyper links</li> </ul>	To create a Power Point Presentation on a given topic using hyperlinks
August	Spreadsheet	<ul> <li>Start and close Spreadsheet application Learn formulas</li> <li>Insert and delete row in a worksheet</li> </ul>	create your class time table in Spreadsheet application
September	Spreadsheet	<ul> <li>Resizing column width and row height</li> <li>Auto fill options</li> <li>Insering worksheet</li> <li>Editing data</li> </ul>	Create a list of your favourite songs and rate them with numbers ranging from 1 to 5
October	Spreassheet	<ul> <li>Applying Functions on the given data.</li> <li>Useage of common Funtions as Sum, Product, Difference, Average, Max and Min</li> </ul>	Create a spredsheet displaying the marks of 10 students in 6 subjects. Calculate the Sum, Average of every subject. Calculate the Max and Min marks of every subject.

- 27 -

Month	Concept	Skills The students will be able to:	Activity
November	Decision Making in Scratch	<ul> <li>Comparison Operator</li> <li>Boolean Expression</li> <li>Logical Operators</li> <li>String Decisions</li> <li>Comparing letters and strings</li> <li>Decisions</li> </ul>	Create a code to find which number is greater out of two numbers. Create a code to check the password is correct or not.
December	More about Loops	<ul> <li>The Repeat Block</li> <li>The Repeat Forever Block</li> <li>The Repeat Until Block</li> <li>Stop Commands</li> <li>Counters</li> </ul>	Create a simple animation using the repeat forever block. Create a animation where the dancer is dancing using repeat forever block.
January	More on Scratch	<ul> <li>Sensing Blocks</li> <li>Using Keyboard Keys</li> </ul>	Create a clicker game using the sensing blocks.
February	Logic Development with RoboMind	<ul> <li>Understand instructions and program</li> <li>Use Robomind program to develop logical skilss</li> <li>Control the Robot with remote control and simple.</li> <li>Use repeat() to execute statement repeatedly.</li> <li>Use If-else block decision – makina.</li> </ul>	Open map,maze1.mp.Write program to help Robo go to the beacon and put it on the home tile.