

Grade – 7

പഠനനേട്ടങ്ങൾ

- കവിതകളിലെ ആശയം, ചമത്ക്കാരം, ബിംബകല്പന, വാഗ്മയചിത്രം എന്നിവ കണ്ടെത്തുന്നു
- കവിയുടെ രചനാ രീതി സാമൂഹ്യപ്രസക്തി വൈവിധ്യം തുടങ്ങിയ സവിശേഷതകൾ പരിഗണിച്ചും സ്വന്തം കാഴ്ചപ്പാടുകൾ ഉള്ളിലും ആസ്വാദനം വാചികമായി അവതരിപ്പിക്കുകയും എഴുതി തയ്യാറാക്കുകയും ചെയ്യുന്നു
- കവിതകളിൽ ഉള്ള താളവൈവിധ്യം തിരിച്ചറിഞ്ഞ് അവ ഹൃദിസ്ഥമാക്കി യോജിച്ച താളത്തിൽ ചൊല്ലുകയും ഏതെങ്കിലും ആവിഷ്കാര രൂപത്തിൽ അവതരിപ്പിക്കുകയും ചെയ്യുന്നു
- സാഹിത്യ കൃതികൾ വായിച്ച് വിവരങ്ങൾ ഉൾക്കൊള്ളുകയും വിശകലനം ചെയ്ത് ഒളിഞ്ഞിരിക്കുന്ന ആശയങ്ങൾ കണ്ടെത്തുകയും ചെയ്യുന്നു
- ഭാഷയിലെ സവിശേഷ പ്രയോഗങ്ങളുടെ ഔചിത്യം വിശകലനം ചെയ്യുന്നു
- ലഭിച്ച വസ്തുതകൾ ഉപയോഗിച്ച് പത്രവാർത്ത തയ്യാറാക്കുന്നു
- പഠനനേട്ടങ്ങൾ
- ചെറുകഥയുടെ രചനാരീതി, വൈവിധ്യം തുടങ്ങിയ സവിശേഷതകൾ തിരിച്ചറിഞ്ഞ് ആസ്വദിക്കുന്നു
- കഥാപാത്രങ്ങളുടെ മാനസികാവസ്ഥയും കഥയിലെ അവരുടെ സ്ഥാനം കണ്ടെത്തി വിശകലനം ചെയ്യുന്നു
- വിഷയത്തിനും, സന്ദർഭത്തിനും യോജിച്ച പ്രയോഗങ്ങൾ ശൈലികൾ എന്നിവ എഴുത്തിൽ ഉപയോഗിക്കുന്നു
- കവിതകളിലെ സവിശേഷമായ ആശയ ധനം ബിംബകല്പന പ്രതീകങ്ങൾ എന്നിവ കണ്ടെത്തുന്നു
- കവിയുടെ രചനാരീതിയും സവിശേഷമായ പ്രയോഗങ്ങളും തിരിച്ചറിയുന്നു
- കവിതകൾ ആശയത്തിന് ഭാവത്തിനും താളത്തിനനുസരിച്ച് ഈണത്തിൽ ചൊല്ലി അവതരിപ്പിക്കുന്നു
- സ്വന്തം അഭിപ്രായങ്ങൾ മാനക ഭാഷയിൽ അവതരിപ്പിക്കുന്നു
- അഭിമുഖം നടത്താൻ ആവശ്യമായ ചോദ്യാവലി തയ്യാറാക്കുന്നു
- മറ്റ് വ്യവഹാര രൂപങ്ങളുടെ ആവിഷ്കരിച്ച ആശയങ്ങൾ ക്രോഡീകരിച്ച് എഴുതി അവതരിപ്പിക്കുന്നു
- സാമൂഹിക പ്രസക്തിയുള്ള വിഷയങ്ങൾ അടിസ്ഥാനമാക്കി ഉപന്യാസം, പ്രഭാഷണങ്ങൾ തയ്യാറാക്കുന്നു

- വിഷയത്തിനും സന്ദർഭത്തിനു യോജിച്ച പ്രയോഗങ്ങൾ, ശൈലികൾ എന്നിവ പ്രസംഗത്തിൽ ഉപയോഗിക്കുന്നു കവിതകൾക്കു ചിത്രമായ ഭാവ അഭിഷേകത്തോടെ യോജിച്ച താളത്തിലും ഈണത്തിലും ചൊല്ലി അവതരിപ്പിക്കുന്നു
- കവിതയിലെ കഥാപാത്രത്തിന്റെ മാനസികാവസ്ഥ കണ്ടെത്തി വിശകലനം ചെയ്യുന്നു
- കവിതയിലെ ആശയം, ചമൽക്കാരം, ബിംബകല്പന, വാഗ്മയചിത്രം എന്നിവ കണ്ടെത്തി പറയുന്നു
- പാദാന്തത്തിന് നേടിയ ഭാഷാപരവും ആശയപരവുമായ ശേഷികൾ പ്രയോജനപ്പെടുത്തി സർഗാത്മക രചനകൾ ഏർപ്പെടുത്തുന്നു
- കഥ ഉചിതമായ ഭാവത്തോടെ വായിച്ച് അവതരിപ്പിക്കുന്നു
- സംവാദത്തിൽ പങ്കെടുത്ത ആശയങ്ങളും നിലപാടുകളും യുക്തിസഹമായി അവതരിപ്പിക്കുന്നു
- കഥയിലെ സന്ദർഭങ്ങളിൽ അഭിനയിച്ച് അവതരിപ്പിക്കുന്നു
- സൂചകങ്ങൾ വികസിപ്പിച്ച സ്വന്തം പ്രകടനവും മറ്റുള്ളവരുടെ പ്രകടനങ്ങളും വിലയിരുത്തുന്നു
- വിവിധ ആശയ മേഖലകളെ അടിസ്ഥാനമാക്കിയുള്ള ചർച്ചകളിൽ പങ്കെടുത്ത ആശയങ്ങളും നിലപാടുകളും യുക്തിപൂർവ്വം അവതരിപ്പിക്കുന്നു
- ചർച്ചകളിലും സംവാദങ്ങളിലും രൂപീകൃതമായ ആശയങ്ങൾ ക്രോഡീകരിച്ച് വാചികമായ ലിഖിതമായും പ്രകടിപ്പിക്കുന്നു

Grade – 7

ENGLISH

Listening and Speaking

Listen to different text across the curriculum, discourses (verbal & nonverbal) through various media and respond accordingly. Speak on a wide range of topics / situations both in school and outside.

Learning Outcomes:

The children will be able to:

1. Listen keenly, answer accurately and respond with appreciation to a variety of questions on a text(seen and unseen) for aural/written comprehension.
2. Participate in group discussions taking on the role of leader, facilitator, or listener, with the ability to critique.
3. Collate ideas and seek clarification to keep discussions relevant.
4. Apply strategies for making listening effective in the classroom.
5. Record/recollect the understanding of the flow of ideas by taking notes.
6. Compile information/share ideas in texts, discussions, and use class-level vocabulary to make a presentation.
7. Display analytical and persuasive skills through debates and discourse on contemporary issues or current affairs.
8. Use/apply multi-media to make presentations on issues and social messages.
9. Develop techniques of becoming an effective speaker with the right modulation of voice, physical gestures, choice of words, informal/technical language.

Reading

Children read, analyse and evaluate a range of texts (seen /unseen) and raise questions on pertinent issues and themes.

Learning Outcomes

The children will be able to:

1. Read, comprehend and analyze literary/non-literary texts, cull out salient points of what the writer states with textual evidence to support claims.
2. Identify central ideas in a text and evaluate the connections with lexx important issues dealt with the text, collate those into an objective summary without personal opinion/judgment.
3. Comment on the choice of vocabulary/figurative language and tone/mood used in the text.
4. Deconstruct the textual piece into sections to enhance understanding of the structure used by the author.
5. Question views expressed by authors and suggests an alternative argument.

Writing

Children develop a diverse and creative style of writing. They express themselves through stories, poems and anecdotal records, narratives, etc.

Learning Outcomes

The children will be able to

1. Develop different styles of writing with focus on adjusting to the task, purpose and audience.

2. Analyze relevant ideas/concepts. Select appropriate introductory strategies, develop logical arguments, give examples and use appropriate quotations to support arguments.
3. Connect relevant ideas and formulate appropriate conclusions.
4. Focus on the use of grade appropriate vocabulary, using precise phrases, sensory language to make the writing vivid and vibrant.
5. Work on small projects individually and in groups to provide opportunities for collaborative work and help foster greater interaction among students.
6. Develop age appropriate skills of writing on a range of disciplines.
7. Apply technology as a resource to enhance research work.
8. Creative writing
9. Write a composition(three or more paragraphs) of about 200-250 words at a more advanced level on any given topic.
10. Write a short story, poem, dialogues based on inputs provided in the class or through personal experience.
11. Write narratives that recount a well-elaborated event or short sequence of events. Include details to describe actions, thoughts and feelings.
12. Write notices for school, prepare posters etc.
13. Organize and structure meaningful sentences in a sequential manner.
14. Use linkers such as however, therefore etc. to link sentences to indicate flow of ideas.
15. Draw from personal experiences or real life situations.
16. Prepare posters/notices/messages/informal letters/ invitations/ greetings etc.

Grammar and Vocabulary in Context

Children use a varied range of vocabulary and grammar in context that reflects their complex use of language.

Learning Outcomes

The children will be able to

1. Identify and understand the difference between phrases and clauses in simple, compound and complex sentences.
2. Comprehend the difference in the function of an active and passive voice. Demonstrate the ability to transform from one voice to the other.
3. Identify and classify synonyms, antonyms and analogy in the right context.
4. Demonstrate a further understanding of figurative language, (eg: irony, pun, personification, alliteration, metaphor, simile, assonance, onomatopoeia).
5. Identify connections/relationships, recognises literary allusions and their sources.
6. Acquire grade-appropriate words and phrases and domain specific vocabulary to convey comprehension and clear expression.
7. Use language appropriate to context.

Grade – 7

HINDI

कक्षा VII

थीम 1: सुनना और बोलना

बच्चे टीवी पर प्रसारित गोष्ठियों, परिचर्चा आदि को सुनकर भली-भाँति समझते हैं और उसपर अपनी बेबाक राय प्रस्तुत करते हैं। विशिष्ट संदर्भों में प्रयुक्त विशेष शब्दावली को समझने लगते हैं और ग्रहण करते हैं। जानकारी साझा करते हैं। अपनी बात को आत्मविश्वास से कह सकते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- पढ़ी, सुनी या देखी बातों जैसे - सामाजिक घटनाओं, कार्यक्रमों, मुद्दों, सामाजिक सरोकारों आदि पर बेझिझक चर्चा कर सकेंगे।
- टीवी पर प्रसारित चर्चा, संगोष्ठी, सोशल मीडिया और इंटरनेट की दृश्य-श्रव्य सामग्री का अर्थ-ग्रहण कर सकेंगे। आवश्यकता अनुरूप अपनी प्रतिक्रिया प्रकट कर सकेंगे।
- रेडियो, टीवी, आदि पर सुनी देखी बातों और खबरों को अपनी भाषा में अभिव्यक्त कर सकेंगे।
- विविध कलाओं, जैसे- हस्तकला, वास्तुकला, नृत्य कला आदि में प्रयुक्त भाषा के शब्दों को समझ सकेंगे।
- नए शब्दों को जानने के लिए खोजबीन करेंगे।
- वक्ता के विचारों से असहमत होते हुए भी उसकी उसकी बात ध्यानपूर्वक शिष्टाचार के साथ सुन सकेंगे और उसके दृष्टिकोण को समझ सकेंगे।
- अपने विचारों को आत्मविश्वास से प्रस्तुत कर सकेंगे।
- प्रश्नों को सुनकर समझेंगे और उनके अनुरूप उत्तर दे सकेंगे।
- विभिन्न संदर्भों में प्रयुक्त भाषा - शैली को समझते हुए उसका आनंद ले सकेंगे।
- साहित्यिक अंशों का सुनकर आनंद ले सकेंगे और अर्थ-ग्रहण कर सकेंगे।
- लिंग / वचन का सही प्रयोग करते हुए अपनी बात कह सकेंगे।
- मल्टी-मीडिया (ग्राफिक्स, तस्वीरें, संगीत, ध्वनि आदि) का प्रयोग करते हुए दृश्य - सामग्री प्रस्तुत कर सकेंगे।
- अपनी आयु के अनुरूप विषयों पर आशुभाषण प्रस्तुत कर सकेंगे।

थीम 2: पढ़ना लिखना (पठन एवं लेखन कौशल)

बच्चे अपनी पाठ्य - सामग्री अतिरिक्त पत्र - पत्रिकाओं को पढ़कर स्वयं अपनी समझ बनाते हैं। नए शब्दों के विविध अर्थ और प्रयोग जानने लिए शब्दकोश एवं थिसारस प्रयोग करते हैं। कविता, कहानी, नाटक,

रिपोर्ट आदि विधाओं में रचनात्मक लेखन करते हैं। लेखन में व्याकरण सम्मत भाषा का प्रयोग करते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- पत्र-पत्रिकाओं, पुस्तकों आदि से सामग्री को पढ़कर समसामयिक संदर्भों में उसका अर्थ समझ सकेंगे।
- किसी विशिष्ट उद्देश्य को ध्यान में रखते हुए उससे संबंधित विशेष स्थल को पहचान कर पढ़ सकेंगे। शीर्षक एवं उपशीर्षक दे सकेंगे।
- पाठ के सार एवं विचार सारणी को ग्रहण कर सकेंगे।
- शब्दकोश को देखकर अर्थ ढूँढ सकेंगे।
- अपने विचारों से अलग पाठ्य- सामग्री के मूलभूत तथ्यों को पहचान सकेंगे।
- विभिन्न प्रकार प्रश्नों को पढ़कर समझेंगे और उनके अनुकूल उत्तर लिख सकेंगे।
- शब्दों, मुहावरों और पदबंधों का अपने लेखन में प्रभावशाली और उपयुक्त प्रयोग कर सकेंगे।
- विद्यालय की पत्रिका के लिए कहानी, कविता, चुटकुले, लेख, रिपोर्ट लिख सकेंगे।
- विभिन्न प्रिंट और डिजिटल माध्यमों से जानकारी प्राप्त करके अपने लेखन उसका उपयोग कर सकेंगे।
- प्रभावशाली शैली, तार्किक और व्याकरण सम्मत भाषा में अपनी बात लिखकर अभिव्यक्त कर सकेंगे।

थीम 3: व्याकरण और भाषा

बच्चे भाषा की कुछ जटिल संरचनाओं को समझने लगते हैं। व्यवहार में लिखित और मौखिक अभिव्यक्ति में व्याकरण सम्मत भाषा का प्रयोग करते हैं। निबंध व पत्र के अतिरिक्त डायरी, विज्ञापन आदि भी लिखते हैं।

अधिगम उपलब्धियाँ (Learning outcomes):

- हिंदी भाषा में प्रयुक्त विभिन्न प्रकार के शब्दों को पहचान सकेंगे और अपनी भाषा में उनका प्रयोग कर सकेंगे।
- उपसर्ग - प्रत्यय का तात्पर्य समझ सकेंगे और मूल शब्दों में जोड़कर नए शब्द बना सकेंगे।
- संज्ञा के तीन भेद - व्यक्तिवाचक संज्ञा, जातिवाचक संज्ञा और भाववाचक संज्ञा को पहचान सकेंगे और भाववाचक
- संज्ञाओं का निर्माण कर सकेंगे।
- सर्वनाम के भेदों की पहचान और उसका सही प्रयोग कर सकेंगे। भेद- पुरुषवाचक सर्वनाम, निश्चयवाचक , अनिश्चयवाचक प्रश्नवाचक , संबंधवाचक, निजवाचक का स्पष्टीकरण।
- विशेषण तथा विशेषण के चार भेदों - गुणवाचक विशेषण, परिमाणवाचक विशेषण, संख्यावाचक विशेषण, सार्वनामिक विशेषण पहचान सकेंगे और उसका प्रयोग कर सकेंगे। अन्य पदों से विशेषण बना सकेंगे।

- क्रिया - कर्म के आधार पर दो भेद - अकर्मक क्रिया और सकर्मक क्रिया की पहचान कर सकेंगे।
- क्रिया विशेषण और उसके चार भेदों - रीतिवाचक क्रिया विशेषण, परिमाणवाचक क्रिया विशेषण , कालवाचक क्रिया विशेषण और स्थानवाचक क्रिया विशेषण की पहचान कर सकेंगे।
- व्यावहारिक भाषा में लिंग और वचन का सही प्रयोग कर सकेंगे।
- काल व काल के तीन भेदों - भूतकाल, वर्तमान काल और भविष्यत काल का समुचित प्रयोग कर सकेंगे।
- कारक - चिह्नों को समझ कर अपनी भाषा में सही प्रयोग कर सकेंगे।
- वाक्य भेद - अर्थ के आधार पर वाक्यों को पहचान सकेंगे। परस्पर परिवर्तन कर सकेंगे। भेद - विधानवाचक
- निषेधवाचक, प्रश्नवाचक, विस्मयादिबोधक, आज्ञावाचक, इच्छावाचक, संदेहवाचक और संकेतवाचक । वाक्य
- शोधन भी करते हैं।
 - (क) विराम - चिह्नों को पहचान सकेंगे और उनका सही प्रयोग कर सकेंगे।
 - (ख) 'की' और 'कि' तथा 'रि' और 'ऋ' के अंतर, अनुस्वार 'र' के विभिन्न रूपों को ठीक से समझते हुए लेखन में सही प्रयोग कर सकेंगे।
- शब्द-भंडार- विलोम, पर्यायवाची अनेक के लिए एक शब्द , समरूपी भिन्नार्थक शब्द, अनेकार्थी शब्दों का अपनी भाषा में प्रयोग करते हैं।
- मुहावरों को वाक्यों और भाषा में समझ कर प्रयुक्त कर सकेंगे।
- अपठित अनुच्छेद पढ़कर समझ सकेंगे और अपनी भाषा में संक्षिप्त उत्तर लिख सकेंगे।
- पत्र-लेखन का प्रारूप समझते हुए औपचारिक और अनौपचारिक पत्र लिख सकेंगे।
- निबंध लेखन द्वारा अपने विचारों को अभिव्यक्त कर सकेंगे। भाषा शैली, प्रस्तुति का क्रमशः विकास हो सकेगा ।
- चित्र देखकर अपनी कल्पनाशीलता और भाषा का प्रदर्शन करते हुए विभिन्न विषयों पर अभिव्यक्ति कर सकेंगे।
- विज्ञापन लेखन - छोटे-छोटे विज्ञापन बना सकेंगे।
- व्यक्तिगत अनुभवों की डायरी विधा में लिख सकेंगे।

Grade – 7

MATHEMATICS

Theme 01: Number System

In this theme the rules developed by children for addition and subtraction of integers will be extended to the formation of rules for their multiplication and division by using patterns and generalization.

Another important type of number called rational number will also be introduced in this class. This exposure will develop children's understanding about various kinds of numbers as a system and a structure. At this stage a relationship will also be established between fractions and rational numbers for which children will extend the rules used for performing operations on fractions to integers. This is also the time when children will be enabled to understand that fractions are not only representing part of a whole but also a number that operates on quantities. Extension of fractions and rational numbers is further done to decimal fractions. Once children understand that decimal notation of numbers is another convenient way of writing fractions with denominator as 10, 100, 1000 etc, they will be able to form rules for operating decimal fractions too. Children's exploration on properties of natural numbers through a play way method will help in learning exponential form of numbers, divisibility rules, LCM and HCF. The learning of Sets and their types and use in daily life is further extended in this class.

Learning Outcomes:

Children will be able to:

1. Multiply integers by using patterns and generalize the rules to multiply a positive integer by a negative integer, a negative integer by a positive integer and two negative integers;
2. Divide integers by using patterns and forms rules to perform division in integers;
3. Get a feel of necessity of rational numbers (through representation on number line);
4. Perform operations on rational numbers (addition, subtraction, multiplication and division);
5. Solve daily life problems involving rational numbers (all operations);
6. Observe patterns in multiplication tables and forms divisibility rules;
7. Understand and use fraction as an operator;
8. Find reciprocal of a fraction;
9. Multiply fractions by using patterns/paper folding/pictures and form general rules;
10. Divide fractions by using patterns/visualization/picture and forms rules;
11. Solve word problems involving mixed fractions and operations on them;
12. Represent rational number as a decimal and vice-versa;
13. Multiplication and division of decimal fractions;
14. Use exponential form and their rules to solve problems related to repeated multiplication;
15. Revise idea of sets;
16. Define equal, equivalent, and universal sets;
17. Find and use the cardinality of finite sets.

Theme 02: Ratio and Proportion

This theme will focus on developing children's ability to solve higher problems on the use of ratio and proportion in daily life in this class. Children are enabled to use ratio,

proportion and their properties appropriately in problem solving. The idea of percentage, unitary method, simple interest, time, work and speed are also introduced through simple daily life problems. Children will appreciate that this is the part of mathematics that they can use the most in their daily lives.

Learning Outcomes:

Children will be able to:

1. Recall ratio and proportion done in early classes;
2. Solve problems using unitary method (getting feel of how formulae for calculation of simple interest and understand percentage as a fraction with denominator 100);
3. Rewrite fractions and decimals into percentage and vice-versa;
4. Solve problems related to profit and loss (single transaction only);
5. Apply simple interest (time period in complete years) in daily life situations;
6. Solve problems related to speed, distance and time.

Theme 03: Algebra

Children in class VI were exposed to and were enabled to understand that algebra is an extension and generalization of arithmetic. Letters for numbers are to be seen as a compact language to express situations in expressions. The basic idea of various terminologies that form the language to learn algebra is also to be communicated to children in a gradual manner. Children should get a feel that algebra is just extension of numbers and quantities. They should also gain fluency in mathematical language through operations on algebraic expressions and solving linear equations.

Learning Outcomes:

Children will be able to:

1. Identify terms related to algebra like constants, variable, terms, coefficient of terms, like and unlike terms etc.;
2. Generate algebraic expressions involving one or two variables/unknowns;
3. Add and subtract algebraic expressions;
4. Express situations in simple linear equations and find solution of related problems;
5. Find a solution to simple inequalities ($<$ or $>$) in one variable.

Theme 04: Geometry

Children in this class will be enabled to perceive relationships between properties of figures. The children will develop the ability to give the minimum number of properties, eliminating redundancies and formulate meaningful definitions and understand inclusion relationships such as every square is a special type of rectangle, but not every rectangle is a square. Note that if a student is requiring to "know a definition" before attaining this level, it will be a memorized definition with little meaning to the student. Their concept definition is likely not to match their concept image.

Learning Outcomes:

Children will be able to:

1. Identify pairs of angles like linear, supplementary, complementary, adjacent and vertically opposite and find one when the other is given;

2. Hypothesize the relationship between pairs of angles out of eight angles formed by a transversal with two parallel lines;
3. Verify angle sum and other properties of triangles and use these properties to find unknown elements of a triangle;
4. Appreciate the rotational symmetry of various shapes and figures;
5. Read simple maps and construct own maps like home to school, map of her village, house etc.;
6. Establish congruence criterion for triangles and circles;
7. Construct simple triangles when three out of six elements are given (like three sides, two sides and included angle, a side and two angles etc.).

Theme 05: Mensuration

This theme will focus on developing children's understanding and ability on measurement of area, volume and capacity. This begins with children finding rules/forming formulae for standard figures like cube, cuboid, cylinder etc. The major focus will be on finding the area of 2-D shapes and surface area of 3-D shapes. It is also expected that children will be able to learn to write measurement in smaller and larger units with conversion.

Learning Outcomes:

Children will be able to:

1. Measure approximate area of simple regular and irregular closed shapes by using unit square grid sheet;
2. Form formulae to find the area of the region enclosed in a rectangle and a square as a better way of counting the number of unit squares that fill them completely.

Theme 06: Data Handling

Finding a representative value for a given set of observations called data is a necessary requirement in most of the daily life situations, like one number for heights of the children in a class, number of children in a class when numbers of total children in all classes of the school is known etc. This theme aims at developing children's understanding about the meaning and use of averages like mean, median and mode of simple data not having more than 15 observations. They will also be able to represent data as bar graphs and interpret them.

Learning Outcomes:

Children will be able to:

1. Find various representative values (mean, median and mode) for simple data from her daily life;
2. Represent data by simple bar graphs and interpret them.

Grade – 7

HISTORY

Theme 01: Mediaeval Europe – Rise and Spread of Christianity

‘Mediaeval Europe – Rise and Spread of Christianity’ aims at exposing and providing children with information to be able to understand the transition of Europe from the Ancient Roman Empire to the Mediaeval Byzantine Empire. The rise and spread of Christianity will broaden their perspectives on beliefs across the globe.

Learning outcomes:

Children will be able to:

1. Trace the origin and spread of Christianity;
2. Reflect on the basic principles and teachings of Christianity;
3. Identify similarities in the good teachings of the various forms of religion;
4. Discuss and analyse the relevance of Christ’s teachings in the present-day context;
5. Analyse the relationship between the decline of the roman empire and the spread of Christianity;
6. Study the impact of crusades in Europe;
7. Analyse the influence of the church on the life of the people in Europe.

Chapter 01: Mediaeval Europe – Rise and Spread of Christianity

Theme 02: Rise and Spread of Islam

The theme ‘Rise and Spread of Islam’ aims at enabling the children to understand a major turning point in the history of mankind with the emergence of a new faith that spread across many continents and affected the politics, life and culture of many places. The theme will generate an awareness and provide the children with an insight into the conditions and processes that led to the rise and spread of Islam. The Pedagogies will help the children to appreciate the ‘welfare of mankind’ as the basis of all religions.

Learning outcomes:

Children will be able to:

1. Trace the emergence and spread of Islam in Saudi Arabia;
2. Discuss the basic principles and teachings of Islam;
3. Report on observations related to some other beliefs and practices;
4. Appreciate a humanitarian approach as the basis of all religions.

Chapter 04: The Turkish Invasions

Theme 03: The Delhi Sultanate

‘The Delhi Sultanate’ will provide children with an insight of the period and enable them to understand the rule of the Sultanate period in Delhi, their capital, administration, achievements and socio-cultural developments. Interesting pedagogy will motivate children to discuss, explore, compare and analyse the information on

this period and relate it to present day life. It will help children to understand how the past has helped in shaping the present.

Learning outcomes:

Children will be able to:

1. Discuss the emergence of Delhi as a seat of power;
2. Name the five dynasties that ruled Delhi;
3. Analyse the influence and impact of notable rulers on the sultanate;
4. Evaluate the key features of the different dynasties of the Delhi sultanate;
5. Draw out a comparative analysis between the policies of the different dynasties;
6. Evaluate the reasons for the decline of the Delhi sultanate

Chapter 05: The Delhi Sultanate

Chapter 06: The Khaljis and the Tughlaqs

Theme 04: The Vijayanagar and Bahamani Kingdoms

'The Vijayanagar and Bahamani Kingdoms' theme deals with two of the most prominent kingdoms that existed in South India. Decline and disintegration of the Tughlaq Empire paved the way for the rise of these two Kingdoms. Interesting pedagogies will help children to appreciate the development of art and architecture of the Vijayanagar and the Bahamani Kingdoms. This understanding is critical for our children to feel proud of the rich cultural heritage of our country.

Learning outcomes:

Children will be able to:

1. Identify the location of the kingdoms;
2. Assess the reasons for the emergence of the Vijayanagar and the Bahamani kingdoms;
3. Understand and discuss the major achievements of the kingdoms;
4. Appreciate the architectural legacy left behind.

Chapter 08: The Vijayanagar and Bahamani Kingdoms

Theme 05: The Mughal Empire

The theme will expose children to the Mughal Empire and enable them to understand why and how it became the most important Empire of the later period of Mediaeval Indian History. The Empire stretched over a vast area of the Indian subcontinent and had a rich diversity of people and cultures. The children will also be able to appreciate the Mughal Art and Architecture which form a part of the rich heritage of India.

Learning outcomes:

Children will be able to:

1. Trace the emergence of the Mughal dynasty in India;
2. Identify the factors that led to the conquest of India by Babur;
3. Analyse the achievements and failures of Mughal emperors;
4. Discuss the impact of Sher shah Suri on the Mughal empire;
5. Discuss and appreciate the administration, foreign policy, relation with regional kings and Din-e-Illahi of Akbar;
6. Discuss Jahangir and Shah Jahan as the patrons of art and architecture;
7. Evaluate the influence of the legacy this period left behind;

8. Examine the rise of regional powers posing a threat to the Mughal empire.

Chapter 09: The Mughal Empire

Chapter 10: Akbar and His times

Chapter 11: Successors of Akbar

Theme 06: Making of Composite Culture

'Making of Composite Culture' will enable children to understand and appreciate the legacy of the Bhakti and Sufi movements that have evolved in India since the eighth century. The period after the thirteenth saw a strong wave of the Bhakti movement when Islam, Brahmanical Hinduism, Sufism and many other different strands of Bhakti influenced one another. The teachings of Bhakti and Sufi saints will develop and inculcate a sense of humanity among children. The Pedagogy used will help them to appreciate common features of all religions for the welfare of mankind.

Learning outcomes:

Children will be able to:

1. Analyse and appreciate the ideas of Bhakti and Sufi saints;
2. Discuss their influence on making of a composite culture;
3. Compare and list the similarities in ideas of the Bhakti and Sufi saints;
4. List the similarities and dissimilarities between the Alwars and the Nayanars;
5. Appreciate and narrate the contribution of the Bhakti and Sufi saints.

Chapter 12: Making of Composite Culture

Grade – 7

CIVICS

Theme 01: The Constitution of India

The theme 'The Constitution of India' aims at providing information and an insight to children into the supreme law of India containing the fundamental rules governing its politics and society as a whole. Children will also be able to discuss and understand the need and main features of a Constitution. This understanding is necessary for them to grow into responsible citizens in a secular democracy.

Learning outcomes:

Children will be able to:

1. Infer and illustrate the idea of a Constitution and its purpose;
2. Discuss the role of the Constituent Assembly;
3. Understand the Preamble, its aims and objectives;
4. Appreciate the contribution of great Indian thinkers in framing the Constitution of India.

Chapter 01: The Constitution of India

Theme 02: Directive Principles of State Policy

'Directive Principles of State Policy' will enable children to understand the principles that direct the State to create opportunities for the welfare of all citizens. Pedagogies help children grasp the interconnectedness between political, social and economic issues. This understanding in turn will help them grow as sensitive, deliberative, responsible and transformative citizens.

Learning outcomes:

Children will be able to:

1. Discuss the meaning of the Directive Principles of State Policy;
2. Examine the features of a welfare state;
3. Enlist welfare activities conducted by the concerned local authorities;
4. Assess the importance of the Directive Principles;
5. Analyse the welfare activities performed by various kings in the Indian history;
6. Compare the welfare activities in the past with the welfare activities in the present day.

Chapter 02: Directive Principles of State Policy

Grade – 7

GEOGRAPHY

Theme 01: Representation of Geographical Features

This theme aims at developing in children the ability to interpret topographical sheets by identifying directions, colours and conventional symbols. They will also be able to measure distances using a scale.

Learning outcomes:

Children will be able to:

1. Identify purpose of using different colours scheme on the map;
2. Use different signs and symbols on the map;
3. Identify features on a topographical sheet on the basis of colours;
4. Use scales for measurement of distance;
5. Identify conventional signs and symbols used on a topographical sheet

Chapter 01: Representation of Geographical Features

Theme 02: Atmosphere

This theme aims at enabling children to understand the importance and composition of gases found in the atmosphere. Children will also be made aware and sensitised towards global warming and its impact on humans.

Learning outcomes:

Children will be able to:

1. Describe the importance of gases that comprise the atmosphere;
2. Describe the composition of different gases in the atmosphere;
3. Highlight importance of layers of atmosphere to sustain life on the earth;
4. Draw diagram to show the structure of atmosphere;
5. Discuss causes for global warming and ways to reduce it;
6. Understand the impact of global warming on life on earth;
7. Analyse the reasons for the depletion of the ozone layer and suggest ways to reduce it.

Chapter 02: Atmosphere

Theme 03: Weather and Climate

This theme will enable children to understand the elements that affect the weather of a place and also differentiate between weather and climate. They will know about instruments used for measurement of rain, temperature, atmospheric pressure, etc.

Learning outcomes:

Children will be able to:

1. List the elements that affect the weather of a place;
2. Distinguish between weather and climate;
3. Identify different instruments used to measure elements of weather;
4. Describe isohyets and isotherms through diagrams

Chapter 03: Weather and Climate

Theme 04: Weathering and Soil Formation

This theme aims to introduce children to weathering and its types and how it contributes to soil formation. Children will also understand the importance of soil profile and the need to conserve soil.

Learning outcomes:

Children will be able to:

1. List the different types of rocks;
2. Discuss the different types of weathering;
3. Analyse the factors that affect weathering;
4. Relate weathering to soil formation;
5. Discuss the importance of soil conservation and describe ways to conserve it.

Chapter 04: Weathering and Soil Formation

Theme 05: Industries

This theme aims to develop children's understanding of how geographical and other factors are responsible for the location of industries. Children will also develop the ability to classify industries on the basis of inputs such as capital, labour and raw materials used. They will also be made aware and sensitised towards pollution caused by industries and measures that need to be taken to prevent the same.

Learning outcomes:

Children will be able to:

1. Differentiate large scale, small scale and cottage industries;
2. Discuss our dependence on industries for fulfilment of our daily needs;
3. Identify agro based industries and their raw materials;
4. Discuss factors responsible for localisation of industries.
5. Name some important industrial centres of the world;
6. Discuss how industries contribute towards environmental pollution and suggest ways to prevent the same.

Chapter 05: Industries

Theme 06: Energy and Power Resources

Energy and power resources play an important role in the development of any area. This theme will enable children to understand the difference between renewable and non-renewable energy resources. Children will also be made aware and sensitised towards the conservation of energy resources in their daily life.

Learning outcomes:

Children will be able to:

1. Describe sources of energy;
2. Classify renewable and non – renewable energy resources;
3. Describe characteristics of solar power, hydro power and wind power;
4. Critically analyse distribution of energy resources among various sections of society;
5. Reflect on the judicious use and conservation of energy resources.

Chapter 06: Energy and Power Resources

Theme 07: Study of Continents: Europe, Africa, Australia and Antarctica

In the previous class, as a part of the Study of Continents, children were given an overview of North and South America. In this class the theme will take the study of different Continents further as children will be introduced to the Continents of: Europe, Africa, Australia and Antarctica. As in the previous class, children will also get an opportunity to undertake case studies.

Learning outcomes:

Children will be able to:

1. Locate Europe, Africa, Australia and Antarctica on the world map;
2. Identify the countries in Europe, Africa and Australia;
3. Locate the major physical features of these continents on the map;
4. Analyse why Antarctica is a human free zone.
5. Understand how the geography of a place affects the life of people through case studies.

Chapter 07: Europe: Location and Physical Features

Chapter 09: Africa: Location and Physical Features

Chapter 11: Australia: Location, Physical Features and Climate

Chapter 13: Antarctica: The Uninhabited Continent

Grade – 7

PHYSICS

Theme 01: Physical Quantities and Measurement

In the earlier classes, teaching-learning emphasised on the measurement of length, mass, time and temperature using devices made for such measurements and how a particular unit and symbol are used to express the result of measurement of each physical quantity. In continuity, this theme aims at enabling children to develop the ability to measure volume and determine the density of a regular solid. They will be introduced to the concept of speed, that contains simple problems to provide an idea of the speed of objects around us and also to know how fast or slow an object is moving.

Learning outcomes:

Children will be able to:

1. Define volume;
2. Express volume of an object in a proper unit with proper symbols;
3. Measure volume of a liquid using a graduated cylinder and a graduated beaker;
4. Estimate the area of an object of irregular shape using a graph paper;
5. Measure the volume of an irregular solid using a graduated cylinder /a graduated beaker;
6. Define density and write its formula;
7. Express density in a proper unit and symbol;
8. Measure density of a regular/irregular solids;
9. Express result of measurement in a proper unit with proper symbol;
10. Define speed and write its formula;
11. Express speed in proper units with proper symbol;
12. Solve simple numerical problems based on formulas of density and speed.

Theme 02: Force and Pressure: Motion

An object is said to be in motion if its position changes with time. When walking, running or cycling or when a bird is flying, there is motion involved. Various objects have different types of motion. They can be classified into translatory motion, circular motion and oscillatory motion. Motion of an object can also be classified as periodic and non-periodic. If an object travels equal distance in equal time, its motion is said to be uniform, if not, the motion is said to be non-uniform. A physical quantity used to distinguish between uniform and non-uniform motion is average speed.

Learning outcomes:

Children will be able to:

1. Define motion;
2. Identify objects in motion and at rest;
3. Describe different types of motion, with examples from daily life;
4. Define uniform and non-uniform motion with examples from daily life;
5. Define the concept of speed (average speed);
6. Calculate average speed of objects based on data provided;
7. Define weight;
8. Relate weight of an object with its mass.

Theme 03: Energy

This theme aims at enabling children to know about energy and the different its forms namely, kinetic energy, potential energy, heat energy and electrical energy. They will also understand that one form of energy can be converted into another form and that this is known as transformation of energy. Energy is conserved during transformation. This is known as the law of Conservation of Energy.

Learning outcomes:

Children will be able to:

1. Define energy;
2. Express energy in proper units;
3. Discuss about different forms of energy;
4. Describe conversion of energy from one form to another in different situations;
5. State law of conservation of energy, with examples.

Theme 04: Light Energy

Light travels in a straight line. Light from an object can move through space and reach the human eye which enables one to see this page, or a face in a mirror. This process is known as reflection. It obeys a law known as law of reflection. Light travels in air at a constant speed of 3×10^8 m/s or 3 lakh kilometre per second. In other mediums, like glass or water, it slows down. Light from sun is composed of seven colours. The colours of objects fascinates everybody, Physicists have found that all colours can be explained as addition of three primary colours. The primary colours are red, green and blue. Colours that is seen on a TV or computer screen arise due to combination of these primary colours. Appearance of colour of an object is due to process of absorption and reflection of different colours by the object.

Learning outcomes:

Children will be able to:

1. Explain the phenomenon of reflection;
2. Define the terms, plane, normal to the plane, point of incidence, angle of incidence and angle of reflection;

3. State the law of reflection;
4. Describe reflection of light from a plane mirror;
5. Use law of reflection to show formation of image by a plane mirror;
6. Describe the characteristics of image formed by a plane mirror;
7. State the value of speed of light;
8. State primary colours;
9. Describe formation of secondary colours by addition of primary colours;
10. Explain the observed colour of an object based on reflection and absorption of light of different colours from the object.

Theme 05: Heat

Heat is a form of energy. Sunlight carries heat that gives warmth when exposed to it. When water is heated, its energy in the form of heat increases and becomes hot. When heat energy of an object increases, it can result in (i) change of temperature, (ii) change in size and/or (iii) change in state of an object. Some materials like aluminium are good conductors of heat and some, like wood are bad conductors of heat. Heat from a hot object is transferred to a cold object in three different ways- conduction, convection and radiation. Previous learning included topics on temperature and its measurement in degree Celsius. Further, two other frequently used temperature scales, Fahrenheit scale and Kelvin scale have been introduced in this theme for a better understanding of concepts related to temperature.

Learning outcomes:

Children will be able to:

1. Define heat as energy;
2. Define units of heat;
3. Describe temperature scales: degree Celsius, Fahrenheit and Kelvin;
4. Describe different effects of heat;
5. Explain different modes of heat transfer;
6. Decide about conductor and insulator of heat in different applications;
7. Describe construction and working of thermos flask.

Theme 06: Sound

Sound is produced by the vibration of objects and different types of instruments are used to produce sound. In humans, sound is produced by the voice box or larynx. Sound needs a medium to propagate hence in vacuum it is not possible to hear one another. Sound wave is a longitudinal wave. A wave is characterised by an amplitude and a frequency. Like light, sound is also reflected from a surface. Sound is also absorbed by a medium. Therefore, walls of a theatre are lined with layers of materials that absorb sound. Sound travels with different speeds in different mediums and travels fastest in solids. This theme will enable children to know and understand 'Sound', different sources of sound and how it travels.

Learning outcomes:

Children will be able to:

1. Identify different sources of sound;
2. Describe sound as a longitudinal wave;
3. Define amplitude and frequency of sound;
4. Demonstrate that sound requires a medium to transmit;
5. List examples of reflection and absorption of sound;
6. Analyze the relative speed of Sound in different mediums;
7. Design a sound-proof box.

Theme 07: Electricity and Magnetism

The basic law of electromagnetism states that “Like poles of magnets repel one another and unlike poles attract”. When an electric current is passed through a coil, the coil behaves like a magnet. This magnet is called an electromagnet. The strength of this magnet is increased by inserting a core of suitable material. Many objects around us, like electric bell, electric motor, loudspeaker, etc. have electromagnets in them. A cell is a source of electricity and are used in torches, watches, calculators, etc. When connected to a device like bulb, it sends current through the bulb and the bulb lights up. Flow of charges constitute current. Materials that allow current to flow through them are called conductors whereas materials that do not allow passage of current through them are called insulators. Children will learn how electric components are arranged in simple series and simple parallel arrangements.

Learning outcomes:

Children will be able to:

1. State the Law of Magnetism;
2. Describe test for a magnet;
3. Explain the phenomenon of electromagnetism;
4. Describe an electromagnet and its uses;
5. Explain construction and working of an electric bell;
6. Relate current to flow of charge;
7. Recognize electric cell as a source of electricity;
8. Define resistors as the component that opposes the flow of current;
9. Represent different components like cell, battery, key, bulb, connecting wire, resistor by standard symbols;
10. Make simple series circuits and simple parallel circuits;
11. Recognize battery as series combination of cells;
12. Define conductors and insulators of electricity.

Grade – 7

CHEMISTRY

Theme 01: Matter and its Composition

This theme focuses on informing and making children aware of the different types of matter/objects found in their surroundings such as stones, water, soil, oil, sugar, air. Some of them have common characteristics in terms of states, some are solids, liquids and some are gases. These states vary in their shape, volume and texture. All these are made up of some materials which have mass and occupy space. Children will also realize that the study of their composition is of great importance in their daily lives.

Learning Outcomes:

Children will be able to:

1. Describe matter;
2. Discuss the constituents (atoms/molecules) of matter;
3. Explain the forces which keep atoms/molecules in matter together.

Theme 02: Physical and Chemical Changes

The theme focuses on informing children and making them aware about the different types of changes physical and chemical that are regularly observed occurring in the environment. Some occur on their own and some are caused due to human activities to meet their requirements. Keeping in view the unending role of these changes, it becomes worthwhile that children learn about them.

Learning Outcomes:

Children will be able to:

1. Differentiate between physical and chemical changes;
2. Perform activities related to physical and chemical changes;
3. Classify changes such as respiration, preparation of solution of sugar, burning of paper ripening of fruit, spoiling of food materials as physical and chemical changes;
4. Discuss that in a chemical change, a new substance with different properties is formed.

Theme 03: Elements, Compounds and Mixtures

This theme will enable children to understand that the earth mainly consists of mixtures containing elements and compounds. These are of different types and many a times the separation of components of mixtures is required for practical utility. They will also know about and discuss the different techniques for separation of the components of a mixture to get the pure components.

Learning Outcomes:

Children will be able to:

1. Identify elements and compounds on the basis of their properties and the type of atoms present in them;
2. Differentiate between mixtures and compounds on the basis of their properties and composition of constituents;
3. Provide examples of elements, compounds and mixtures from daily life;
4. Discuss different techniques for separation of components of mixtures;
5. Justify the reason for the use of a particular technique in separation of a mixture;
6. Explain chromatography and its importance.

Theme 04: Atomic Structure

This theme will enable children to understand that every matter is made up of tiny particles known as atoms and molecules. Molecules are also made up of atoms. Hence atoms are the building blocks of matter. The physical and chemical properties of matter are governed by atoms. Therefore, the knowledge of the concepts of atoms of elements, molecules of elements and compounds and radicals of compounds is necessary to understand different processes and principles of Chemistry.

Learning Outcomes:

Children will be able to:

1. Define atom, molecule and radical;
2. Discuss the significance of valency of elements and radicals;
3. Define valency in terms of number of hydrogen atoms combined or replaced by one atom of the element;
4. Apply the definition based on hydrogen atom to find out the valency of other elements and radicals;
5. Correlate the valency of the elements with group number of periodic table

Theme 05: Language of Chemistry

Chemistry involves the study of a large number of elements and compounds that also have been learnt earlier with their representation by their short hand notations i.e. symbols and formulae. This theme will enable children to understand that it is not convenient to write the full names of the elements and compounds, and the use of symbols has made the job of the chemists much easier. In addition, they will further realize that Chemistry also involves the occurrence of a large number of chemical reactions that are written in the form of equations known as chemical equations. The writing of chemical equations involves writing of reactants and products as their symbols and formulae. Thus symbols and formulae have also made writing of chemical equations in Chemistry very convenient.

Learning Outcomes:

Children will be able to:

1. Identify the names of reactants and products of different chemical reactions;
2. Write a chemical reaction in the form of a chemical word equation;
3. Recognize the usefulness of a word equation.

Theme 06: Metals and Non-Metals

In day-to-day life many elements are commonly found such as iron, aluminium, zinc, lead, chlorine, carbon, sulphur etc. and their compounds. The elements have been

classified in two classes, namely metals and non-metals. In this theme children will learn the classification of elements as metals and non-metals on the basis of their properties.

Learning Outcomes:

Children will be able to:

1. Differentiate between metals and nonmetals on the basis of their physical properties such as luster, conduction of electricity and heat, malleability, ductility, sonority, melting point, boiling point, density, strength;
2. Describe common uses of some of the metals and non-metals;
3. Describe the cause of corrosion of iron and other metals;
4. List different ways of preventing corrosion of metallic articles used in daily life;
5. List some properties and uses of metalloids.

Theme 07: Air and Atmosphere

Air is a mixture of some gaseous components which have wide use in daily life. For example, nitrogen is an important constituent of fertilizers and oxygen is essential for our body for sustenance of life. These gases have important physical and chemical properties and uses.

Learning Outcomes:

Children will be able to:

1. Review that air is a mixture of gasses;
2. Recall the components of air;
3. Discuss the use of oxygen and nitrogen in different life processes;
4. Explain from an activity that mass change takes place on combustion;
5. Express the reaction in the form of word equation;
6. Describe the preparation of oxygen in the laboratory using potassium chlorate/ hydrogen peroxide and manganese dioxide as a catalyst;
7. Understand the concept of catalyst.

Grade – 7

BIOLOGY

Theme 01: Tissue

In the previous class, children learnt about the cell, which is the basic unit of life in plants and animals. The cells are organized into tissues, organs, organ-systems and finally into an organism. The theme in this class will focus on enabling children to know about tissues and the different types of tissues in plants and animals.

Learning Outcomes:

Children will be able to:

1. Define the term ‘tissue’;
2. Relate that plants and animals have different types of tissues;
3. Explain the differences between meristematic and permanent tissues with examples;
4. Draw the relation between structure, location and function of different tissues;
5. Draw diagrams of different tissues and label them;
6. Classify the different types of animal tissues (epithelial, connective, muscular and nerve tissues) with functions.

Theme 02: Kingdom Classification

This theme gives an insight into the study of the types of Kingdoms in Plants and Animals. Living organisms are divided into two kingdoms – Kingdom Plantae and Kingdom Animalia. The kingdom Plantae includes plants, while the animals are included under kingdom Animalia. This two-kingdom classification was found inadequate in the light of disputed position of organisms like bacteria and fungi. In view of the objections to the two-kingdom system of classification, a Five-Kingdom Classification was proposed in 1969. The five Kingdoms are Monera, Protista, Fungi, Plantae and Animalia.

Learning Outcomes:

Children will be able to:

1. Explain the purpose and advantages of classification;
2. Explain the basis of 5-kingdom classification;
3. Differentiate between major groups of organisms;
4. Draw pictures of organisms representing each kingdom;
5. List the useful and harmful effects of bacteria and fungi;
6. Infer that complex organisms have evolved from simple organisms (evolution of life).

Theme 03: Plant Life

The theme Plant Life aims at promoting children's understanding that all living organisms despite their great diversity in shapes and sizes, show similarity in their activities. They all need food, energy, grow, remove waste materials from their bodies, reproduce and respond to their environment. Growth, excretion, reproduction and response to stimuli are some of the basic life processes. This theme will particularly focus on enabling children to understand the two important processes in plants of Photosynthesis and Respiration, differences between the two and factors affecting them.

Learning Outcomes:

Children will be able to:

1. Discuss and demonstrate that leaves perform the function of photosynthesis;
2. Enlist the factors affecting photosynthesis;
3. Draw picture of stomata and chloroplast;
4. Identify the difference between respiration and photosynthesis and relate that respiration and photosynthesis help maintain the balance of CO₂ and O₂ in the atmosphere;
5. Reason out that the energy produced in respiration is used up by the body to perform life-sustaining activities;
6. Differentiate between the aerobic and anaerobic respiration;
7. Discuss the need for growing more and more plants.

Theme 04: Human Body

In the previous classes, children were exposed to basic information regarding some of the organ systems in the human body (digestive, respiratory and circulatory systems). In this theme, children will study the excretory and nervous systems in the human body.

Learning Outcomes:

Children will be able to:

1. Define the term 'excretion' and its need/significance;
2. Draw the outline figure of the human body and mark the location of kidneys, skin, sweat glands and lungs;
3. Infer that the kidneys are very important as they filter the blood;
4. Identify various parts of the nervous system i.e. brain, spinal cord and nerves.
5. Discuss the need of spinal cord, brain, nerves for the body;
6. Relate that all parts of the body are connected to the brain through the nerves;
7. List some of the activities that are under the control of the nervous system.

Theme 05: Health and Hygiene

In the earlier classes children have learnt that diseases develop due to infections by micro-organisms, imbalances in diet and malfunctioning of vital body organs, and that hygiene is important to prevent spread of diseases. In this theme, children will

know and understand the allergic reactions of the body due to certain substances in the environment and how they can be prevented.

Learning Outcomes:

Children will be able to:

1. Define the terms allergy and allergens and differentiate between them;
2. Identify the symptoms produced by allergens;
3. Infer that allergy can be seasonal or perennial;
4. Know the precautions to be taken if they suffer from any particular type of allergy.

Grade – 7

COMPUTER STUDIES

Topic 01: Computer - Hardware Components

Computers comprise of two major components: hardware and software that are integral to each other's functioning. Hardware are either external, like, monitor, keyboard, mouse, printer, etc., or internal, like, CPU, motherboard, drive, sound card and video card. This theme aims at enabling children to know and understand the two major components of the computer.

Learning Outcomes:

Children will be able to:

1. Recognize different components of a computer like SMPS, ports, MODEM and disc drives.
2. Explain the usage of different components.
3. Differentiate between external and internal hardware.
4. Cite examples of external and internal hardware.

Topic 02: Number System – An Introduction

Number System is a set of values used to represent different quantities. In day-to-day life we use the decimal number system, which has a base of 10 as it uses 10 digits (0-9). The digital computer represents all kind of data and information (text, numbers, graphics, video, etc.) in binary numbers which have a base of 2 as the computer uses 2 digits (0 and 1). Other number systems used in computer are octal and hexadecimal. Values from one number system can be converted to other number system. This theme aims at enabling children to know and understand the different number systems and their uses in general and in particular, that of the digital computer.

Learning outcomes:

Children will be able to:

1. Explain the need for Number Systems;
2. List the uses of various Number Systems in computer learning;
3. Convert a value from decimal number system to binary and vice versa;
4. Citing examples of binary, decimal conversion and demonstrating them.

Topic 03: Computer Virus

A computer virus is a 'piece of code' that copies itself and corrupts the system to destroy existing data on a computer. Computer viruses are manmade. There are many types of viruses which infect systems in different ways causing damage to the system. To counter-effect the virus, antivirus programs are developed. This Topic aims at developing children's ability to understand and discuss about what a computer virus is the different types, symptoms and causes along with remedies and protection tips.

Learning outcomes:

Children will be able to:

1. Define a virus.
2. List different types of viruses.
3. Follow standard measures to prevent virus attack.
4. Identify symptoms of virus attack on a computer.
5. Use suitable antivirus software.

Topic 04: Ethics and Safety Measures in Computing

Ethics in computing or computer ethics is a set of moral principles which regulate the use of computers. This theme aims at making children aware of the ethics in computing while using the Internet. Further, in order to safeguard the computer and prevent attacks of viruses and hacking, etc. they will know about certain safety features which need to be applied.

Learning outcomes:

Children will be able to:

1. Follow ethics in computing;
2. Identify online threats;
3. Identify positive and negative uses of social media;
4. Show responsible behavior when using computer and internet;
5. Become responsible digital citizens;
6. Take care about the digital footprint being created by their online behavior;
7. Use information ethically when developing presentations/ projects/ etc.

Topic 05: Spreadsheets - An Introduction

A Spreadsheet is an interactive computer application for storing data, in a tabular form (in rows and columns of a grid), that can be manipulated and used for calculations. Spreadsheets are one of the most popular uses of computer. This Topic aims at developing children's understanding about the basic components and operations of the Spreadsheet, namely: creating/ saving/ modifying a workbook.

Learning outcomes:

Children will be able to:

1. Define a spreadsheet;
2. List the features and components of a spreadsheet;
3. Create a worksheet;
4. Identify the components of spreadsheet window;
5. Differentiate between a workbook and a worksheet;
6. Edit/format a worksheet.

Topic 06: Database and DBMS – An Introduction

Database is an organised collection of data. DBMS, an acronym for Data Base Management System, is an application software for creating and managing databases. It provides facility to create, update, retrieve and manage data. In this topic children will know and understand about the basics of creating a database and will develop the ability to design simple query statements.

Learning outcomes:

Children will be able to:

1. Define database and DBMS;
2. List real life examples of databases;
3. Design a database;
4. Describe different data types;
5. Define a primary Key;
6. Create a table, insert data, save and edit a table;
7. Build query statements

Topic 07: HTML – Advanced Features

This topic will develop children's ability to create a web page by not only using basic HTML tags, but upgrading their skills to use advanced tags like lists, images, links, tables and forms. This will make the creation of a web page more attractive and useful to children.

Learning outcomes:

Children will be able to:

1. Add advanced features to a web page, like lists, images, links, tables and forms