Grade V

മലയാളം

പഠന നേട്ടങ്ങൾ

1. കവിതകൾക്ക് ഈണം കണ്ടെത്താൻ കഴിവു നേടുന്നു

2.കവിത ഭാവം ഉൾക്കൊണ്ട് അവതരിപ്പിക്കാൻ കഴിവു നേടുന്നു.

2. കവിതയുടെ ആശയം പ്രയോഗഭംഗി, ചമൽക്കാരം എന്നിവ ഉൾക്കൊണ്ടു കൊണ്ട് ആസ്വദിക്കുകയും വിശദീകരിക്കുകയും ചെയ്യുന്നു.

3. മാതൃഭാഷയുടെ പ്രാധാന്യം മനസ്സിലാക്കുന്നു.

4. കത്ത്, വിവരണം , പോസ്റ്റർ എന്നി വ്യവഹാര രൂപങ്ങൾ തയ്യാറാക്കാൻ പഠിക്കുന്നു.

5. ദേശീയ ബോധം ഉണ്ടാവുന്നു.

6. കഥ വായിച്ച് ആസ്വദിക്കുന്നു

7. കഥാ രചനയുടെ വ്യത്യസ്ത തലങ്ങൾ മനസ്സിലാക്കുന്നു.

8. ആസ്വാദനക്കുറിപ്പുകൾ തയ്യാറാക്കുന്നു

9 കഥാ രചന ശേഷി നേടുന്നു.

10. കഥ ആശയം ഉൾക്കൊണ്ട് ഭാവാത്മകമായി വായിക്കുന്നു.

11. വായിച്ച കഥകൾ വ്യത്യസ്ത വ്യവഹാര രൂപത്തിൽ അവതരിപ്പിക്കുന്ന

12. സ്വാതന്ത്ര്യ സമര സേനാനികളെ പരിചയപ്പെടുന്നു.

13. രാജ്യ സ്നേഹം വളരുന്നു.

14.ജീവചരിത്രക്കുറിപ്പുകൾ തയ്യാറാക്കുന്നു.

15 . വായനയുടെ പ്രാധാന്യത്തെപ്പറ്റി മനസ്സിലാക്കുന്നു.

Grade V

English

Listening and Speaking

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

Learning Outcomes:

Children will be able to:

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

Reading and Writing

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

Learning Outcomes:

Children will be able to:

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

Grammar and Vocabulary in Context

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

Learning Outcomes:

Children will be able to:

- Use vocabulary as per different registers of language.
- Understand and use adverbs and their kinds.
- Use conjunctions, prepositions, and interjections.
- Learn the meaning and use of common idioms and proverbs.

- Use plural possessives, adjective and adverb comparisons, apostrophes in contractions (basic examples – can’t, won’t etc.).
- Introduce and reinforce the use of irregular verbs in their simple and continuous tense. (break, broke, broken – eat, ate, eaten).
- Use correct spelling of commonly used words.
- Learn to use direct and reported speech in dialogues.
- Develop a higher level of proficiency in the use of subject verb agreement

Grade V

Hindi

कक्षा - V

थीम 1: सुनना और बोलना

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

अधिगम उपलब्धियां (Learning outcomes):

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

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

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

अधिगम उपलब्धियाँ (Learning outcomes):

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

Grade V

Mathematics

Theme 1: Numbers

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

Learning Outcomes:

Children will be able to:

1. Read and write large numbers up to crores using the Indian numeration system.
2. Compare the Indian numeration system with the International system and read, write numbers using the International numeration system.
3. Use place value to write a number in expanded form and vice versa.
4. Compare large numbers using place value.
5. Use place value to form the greatest and smallest numbers from the given digits.
6. Round off numbers to nearest 10s, 100s or 1000th.
7. Represent numbers using roman symbols.
8. Acquire understanding about fractions.
9. Find the fractional part of a collection.
10. Identify and form equivalent fractions of a given fraction.
11. Express a given fraction 1/2, 1/4, 1/5 in decimal notation and vice-versa. For example, in using units of length and money - ₹5 is half of ₹10.

Theme 2: Number Operations

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

Learning Outcomes:

Children will be able to:

1. Apply the understanding of place value of numbers beyond 1000 in the four operations.

2. Divide a given number by another number(up to 2 digits).
3. Estimate the sum, difference, product and quotient of numbers and verify the same.
4. Use standard algorithms in addition, subtraction and multiplication of numbers.
5. Divide a given number by another number(up to 2 digits) by using standard algorithms.
6. Solve problems involving four operations addition, subtraction, multiplication and division in different real life contexts.
7. Frame word problems based on mathematical statements involving number operations.
8. Explain the meaning of factors, multiples prime and composite numbers.
9. Find and display multiples and factors of numbers using various techniques(eg: factor tree).
10. Discover prime and composite numbers in the number sequence up to 100.

Theme 3: Fractions and Decimals

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

Learning Outcomes:

Children will be able to:

1. Define proper, improper and mixed fractions.
2. Write equivalent fractions of a given fraction by multiplying/dividing numerator and denominator.
3. Compare 3 or more fractions.
4. Add and subtract unlike fractions and mixed numbers.
5. Solve word problems on addition and subtraction of fractions
6. Explain multiplication of fraction as 'of'.
7. Multiply fractions- fraction by a whole number, fraction by fraction.
8. Relate fractions with denominator 10, 100, 1000 as decimal fraction.
9. Represent decimal fractions pictorially.
10. Find the place value of decimal fractions as -tenths, hundredths, thousandths etc..
11. Expand decimal fractions e.g. 234.67=200 + 30 + 4 + 6/10 + 7/100
12. Classify decimal fractions as equivalent, like, and unlike.
13. Compare and order decimal fractions.
14. Add and subtract decimal fractions.
15. Solve word problems on addition and subtraction of decimal numbers.
16. Construct rules to multiply decimal fraction by 10, 100, 1000.
17. Multiply decimal number by whole number and decimal number by decimal number.

Theme 4: Playing with Numbers(Factors and Multiples)

There are many relationships in the Numbers system which include even and odd numbers, prime and composite numbers. The classification of numbers into two groups is made on the basis of some properties of the numbers. Factors are one of such properties. Work with prime and composite numbers extends understanding of factors, divisors and multiples encountered in the study of multiplication and division. Children should learn that factors and division mean the same thing and that they can be used interchangeably. When two whole numbers are multiplied they should yield a product and can be called either factors or divisors of their product (exceptionally

zero can be a factor but not a divisor). The product of two numbers also called multiple of the two numbers is another concept that is directly related with multiplication of numbers. The children then can adopt any of the two ways of finding factors of numbers; determining by examination and the second more systematic way is using factor trees. children must be advised to use the examination method to factor numbers and to name the greatest of them as HCF. Likewise they should adopt their own ways to find and name the smallest multiple of two or numbers as their LCM.

Learning Outcomes:

Children will be able to:

1. Write multiples of numbers:
2. find factors of numbers.
3. Identify prime and composite numbers, twin primes and co-prime numbers.
4. Test divisibility of numbers by 2, 3, 4 and 5.
5. Find prime factors- by Factor Tree.
6. Find the Highest Common Factor (HCF)- Listing Method and Common Division.
7. Find the Lowest Common Multiples (LCM)- Listing Method and Common division.
8. Relate HCF and LCM and use it to find one when the other is given.

Theme 5: Introduction to Negative Numbers

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

Learning Outcomes:

Children will be able to:

1. Represent whole numbers through the number line.
2. Develop the idea of integers as counting numbers, zero and negatives of counting numbers.
3. Compare integers through the number line.
4. Arrange integers in ascending and descending order.
5. Add and subtract integers.

Theme 6: Geometry

The levels described by the Van Hieles are sequential, and success at one level depends on the development of geometric thinking at the preceding level. Typically, children at the primary level demonstrate characteristics of level 0 and are moving toward level 1 of the Van Hieles' levels of geometric thought. Children entering the class V are most likely functioning in the visualization and analysis levels (0 and 1) of geometric thought. The goal of teaching geometry at this stage is to provide instructional activities that will encourage children to develop thinking and reasoning skills needed to move towards level 2 of the hierarchy, informal deduction (at upper

primary stage). Building on children's experiences with non-standard to standard measures they are ready to begin work with acquiring a confidence in using standard units and relate bigger to smaller and vice-versa.

Learning Outcomes:

Children will be able to:

1. Explore idea of angles and shapes.
2. Classify angles into right angle, acute angle, obtuse angle and represent the same by drawing and tracing.
3. Identify 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes.
4. Identify angles in the environment through observation and paper folding.
5. Identify right angles in the objects and in the environment.
6. Classify angles into right, acute, obtuse angles based on their visible attributes.
7. Represent different angles (like acute, obtuse, right angles) by drawing and tracing on the paper.
8. Explore symmetry in familiar 3D shapes.
9. Explore reflection symmetry and rotational symmetry w.r.t. to familiar 2D- geometrical shapes.
10. Construct the shapes of cubes, cuboids, cylinders and cones from the given nets (designed for this purpose).

Theme 7: Measurement

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

Learning Outcomes:

Children will be able to:

1. Relate different commonly used larger and smaller units of length, weight, time and money and convert larger units to smaller units and vice versa.
2. Estimate the volume of a solid body in known units like the volume of a bucket in about 20 times that of a mug.
3. Apply the four operations in solving problems involving money, length, mass, capacity and time intervals.
4. Explain the terms area and perimeter of simple geometrical shapes.
5. Compute area and perimeter of simple geometrical shapes.

Theme 8: Introduction to Percentage

This theme will focus on children becoming aware and understanding the importance use and different applications of percentage in a variety of ways in many daily life aspects. Percent expresses a relationship between some number and 100. The symbol % and word percent means per hundred or out of hundred. The children at

this stage will be provided opportunities to understand the meaning of percent through their experiences. As percent is common fraction with 100 as denominator, so it is also a decimal fraction representing hundredths. A conscious attempt will be made to extensively build on children's understanding about these earlier learnt concepts to further build their understanding about percent.

Learning Outcomes:

Children will be able to:

1. Define percentages as fraction with 100 as denominator.
2. Establish relationships between fractions, decimal fractions and percentages.
3. Pictorially represent percentage.
4. Convert fractions to percentages and vice- versa.
5. Convert decimals to percentages and vice-versa.
6. Solve simple word problems on percentage.

Theme 9: Data Handling

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

Learning Outcomes:

Children will be able to:

1. Collect data related to various daily life situations, represent it in tabular form and by bar graphs and interpret a given bar graph.
2. Interpret pie charts and line graphs generally found in newspapers and magazines.

Theme 10: Patterns

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

Learning Outcomes:

Children will be able to:

1. Observe and identify patterns with a unit of repeat and extend it.
2. Observe and generalize a rule to extend a progressive pattern.
3. Create a pattern with more than one characteristic.
4. Observe and generalize patterns of triangular and square numbers.

Grade V

Social Studies

Theme 1: Evolution of Mankind

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

Learning Outcomes:

Children will be able to:

1. Identify the stages of the evolution of mankind.
2. List the sources of evidence of man's evolution.
3. Identify, compare and contrast the features of the four stone ages.
4. Identify and reflect on the stages of evolution in modes and systems of transport and communication.
5. Discuss and appreciate the developmental process of human life on earth.

Chapter 1: Story of Human Evolution

Chapter 2: The Iron Age

Chapter 3: Evolution of Transport and Communication

Theme 2: The Constitution of India – Basic features

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

Learning Outcomes:

Children will be able to:

1. Analyze the need and importance of a Constitution.
2. Identify and list the fundamental rights and duties as a good citizen.
3. State the features of the Indian government.
4. Illustrate the stages of the election.
5. Discuss the importance of choosing the right representative.
6. Describe the responsibilities of a citizen in a democratic polity.

Chapter 4: The Constitution of India

Chapter 5: Democratic Government

Theme 3: The Earth – Its Geographical Features

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

Learning Outcomes:

Children will be able to:

1. Discuss the terms- latitude and longitude.
2. Identify different places on the map with the help of latitude and longitude.
3. Explain the concept of the major temperature zones.
4. Differentiate between weather and climate.
5. Enlist the major temperature zones.
6. Identify climates and find out the reasons for climatic changes.

Chapter 6: Locating Places
Chapter 7: Weather and Climate

Theme 4: India – A Diverse Country

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

Learning Outcomes:

Children will be able to:

1. Identify and locate India on the world map.
2. Locate neighboring countries of India on the map.
3. Compare the size of India with neighboring countries.
4. Relate climate to the different regions of the country.
5. Identify various types of vegetation found in India.
6. Relate and compare vegetation and climate in different parts of India.
7. Describe importance of vegetation and its conservation.

Chapter 9: India: Location and Neighbouring Countries
Chapter 10: Climate and Vegetation

Theme 5: The Environment – Major Concerns

'The Environment – Major Concerns' aims at enabling children to understand the components of the environment and interdependence of people living in different regions of the world. Issues related to global warming and its effects and precautions

related to natural disasters will also be dealt with to create an awareness on measures that need to be taken to reduce the adverse impact on the environment.

Learning Outcomes:

Children will be able to:

1. Identify the components of the environment.
2. Discuss critically the reasons for interdependence of people living in different parts of the world.
3. Explain reasons for ozone depletion.
4. Describe change in temperature due to global warming and its impacts.
5. Demonstrate rules to be followed to reduce pollution.
6. Discuss the precautions that need to be taken at the time of natural disasters.

Chapter 11: My Global World

Chapter 12: Natural Disasters

Theme 6: Natural Resources

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

Learning Outcomes:

Children will be able to:

1. Discuss and understand the term resources.
2. Compare and differentiate between renewable and non-renewable resources.
3. Identify and enlist the resources.
4. Discuss the use of resources in life.
5. Suggest ways to conserve resources.

Chapter 13: Natural Resources

Theme 7: Major Occupations in India

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

Learning Outcomes:

Children will be able to:

1. Differentiate between man-made and machine made products.
2. Enlist the large-scale industries in our country.
3. Differentiate between raw material and finished products.
4. Compare old and new methods of farming.

5. Discuss our dependence on industries in day-to-day life.
6. Appreciate the skills of persons involved in crafts.

Chapter 14:India Agricultural and Industries

Grade V

Science

Theme 1: Human Body: The Circulatory System

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

Learning Outcomes:

Children will be able to:

1. Identify organs of the circulatory system in a picture/model.
2. Locate the position of each organ on the human body (Cut outs).
3. Draw pictures of various organs of the circulatory system and label them.
4. Describe functions of each organ and explain the process of circulation using scientific terms/words.
5. Differentiate between arteries and veins and name the major arteries and veins.
6. Explain functions of blood.
7. Discuss various ways (yoga exercises) to keep the heart healthy and strong.
8. Do simple yogic exercises to keep the body strong and healthy under the guidance of an expert /teacher (deep breathing).

Theme 2: Human Body: The Skeletal System

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

Learning Outcomes:

Children will be able to:

1. Identify major bones of the human body and name them.
2. Draw diagrams of major bones and name them.
3. Describe functions of major bones of the human body.
4. Locate major joints of the human body and discuss their functions.
5. Draw diagrams of the shoulder and knee joints and their location in the body.
6. Give examples of other kinds of joints in the human body.
7. Identify food items that are calcium rich.
8. Following simple exercises (under guidance) to make bone and muscles strong.
9. Demonstrate correct posture to keep the body healthy and strong both in sitting /standing position.

Theme 3: Food and Health

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

Learning Outcomes:

Children will be able to:

1. Discuss various components of food required for healthy living.
2. Give reasons for the need for a balanced diet.
3. Enlist healthy and junk food items and differentiate between them.
4. Suggest/find out some ways to make diet healthier.
5. Give reasons for some deficiency diseases and find out ways to prevent/reduce them.
6. Develop awareness regarding adulteration in food items.
7. Find out diseases related to lifestyle, including those related to food habits.
8. State symptoms of some lifestyle diseases such as obesity, anemia, diabetes, blood pressure.
9. Suggest some ways to avoid these diseases.
10. Infer why sprout food and fermented food is good for health.
11. Appreciate the use of various components of food for our body

Theme 4: Pollination

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

Learning Outcomes:

Children will be able to:

1. Identify various parts of the flower and label each part.
2. Draw diagrams of each part of a flower (after observation).
3. Locate parts of a flower involved in the process of pollination.
4. Explain/discuss the process of pollination by using technical terms.
5. Differentiate between self and cross pollination and cite examples of each kind (showing pictures).
6. Recognise and relate the need of the pollination for plants.

Theme 5: Plant Reproduction

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

Learning Outcomes:

Children will be able to:

1. Draw and label the male and female reproductive parts of a flower.
2. Discuss the need for the process of fertilization in plants.
3. Explain the process of fertilization in plants.
4. Identify the different kinds of reproduction in plants (by observing pictures).
5. Cite examples of different kinds of reproduction in plants.
6. Identify various parts through which vegetation reproduction takes place and give examples.

7. Give examples of each kind of seed dispersal.
8. Discuss the need and significance of seed dispersal.

Theme 6: Solids, Liquids and Gasses

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

Learning Outcomes:

Children will be able to:

1. Identify different forms of matter and cite examples of each based on observable properties.
2. State simple properties of solids and demonstrate the same through simple activities.
3. State simple properties of liquids and demonstrate the same through simple activities.
4. State simple properties of gasses and demonstrate the same through simple activities.
5. Describe composition of air and depict it diagrammatically.
6. Cite examples of warm and fresh air in different situations in daily life.
7. Differentiate between wind, breezes, storms and give examples.
8. Explain why ventilators and windows are needed in houses, buildings and halls.
9. Relate the use of fans, air conditioners and coolers in different seasons.

Theme 7: Interdependence in Living Beings-Plants and Animals

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

Learning Outcomes:

Children will be able to:

1. Differentiate between plants and animals based on some features (plants as producers while animals as consumers).
2. Infer why plants can make their own food.
3. Cite examples of producers and consumers.
4. Classify living beings as producers and consumers.
5. Explain the food chain by taking examples as seen in daily life.
6. Identify decomposers, scavengers and cite their examples.
7. Discuss and explain causes of imbalance in nature.
8. Generalize/ infer the effect of hunting, forest fires in the environment.

Theme 8: Sound and Noise

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

Learning Outcomes:

Children will be able to:

1. Identify objects that produce pleasant sounds and objects that produce unpleasant sounds.
2. Recognise sounds produced by some common objects.
3. Identify sounds produced by some animals and mimic them.
4. Identify sounds produced by trees and fallen leaves.
5. Appreciate the importance of sound as a warning signal to save life.
6. Enlist causes of noise pollution.
7. Suggest some ways to reduce noise in the surroundings.
8. Discuss how loud sound affects health.

Theme 9: Work and Energy

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

Learning Outcomes:

Children will be able to:

1. Indicate various food items that give more energy than other food items.
2. Discuss the meaning of work by taking examples from daily life.
3. Cite examples and explain the situations where work is done/ work is not done.
4. Demonstrate through activity, work done/ work not done, in different situations.
5. Explain why energy is needed for work.
6. Differentiate between work and energy with examples.
7. Give examples from daily life of the amount of energy required for different kinds of work.
8. Enlist different forms of energy (light, electricity, heat, sound) and give examples of each kind.
9. Appreciate the importance of energy (light) in daily life.

Theme 10: Light and Shadows

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

Learning Outcomes:

Children will be able to:

1. Conduct simple activities by using various objects and classify them.
2. Record observations of each object (as kind of material).
3. Conduct simple experiment/activity to form the shadow (with the support of elders).
4. Infer why a shadow is formed and what conditions are required for its formation.
5. Enlist changes seen in sun in the morning, afternoon, evening and night (advise not to see sun with naked eyes).
6. Infer why day/night are formed.
7. Differentiate between different motions of earth (revolution of earth).
8. Explain the phenomenon of solar eclipse in simple language.

Theme 11: Simple Machines

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

Learning Outcomes:

Children will be able to:

1. Appreciate the discovery and use of simple tools/machines in daily life.
2. Enlist tools/ simple machines used in day-to-day life.
3. Classify simple machines based on their working principles (levers I, II, III).
4. Give examples of each kind of simple machine.
5. Discuss the need for levers to form different kinds of machines.
6. Draw pictures of each kind of machine and label major parts.
7. Conduct simple experiments/activities to demonstrate how simple machines function.

Theme 12: Cleanliness and Hygiene

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

Learning Outcomes:

Children will be able to:

1. Demonstrate when and how to wash their hands for healthy living.
2. Identify causes of source disease which occur due to unclean surroundings, personal hygiene.
3. Develop awareness and sensitivity towards keeping public places clean.
4. Share cleanliness issues with family members so that healthy habits can be developed among family members as well.
5. Identify degradable and non-degradable garbage in the surroundings and give examples of each.
6. Discuss how to reduce non-degradable garbage to keep the surroundings clean.
7. Create slogans and demonstrate how to dispose-off garbage in the surroundings.

Grade V

Computer Studies

Topic 1: Evolution of Computers

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

Learning Outcomes:

Children will be able to:

1. Describe the history of computers.
2. State its characteristics and limitations.
3. Compare the generations of computers.
4. Keep pace with the latest developments related to technology.

Chapter 1 : Computer and Its Evolutions.

Topic 2: Types of Software

A software is the programme that makes the physical computer perform specific tasks. Based on function and purpose, software is broadly classified into System and Application software.

Learning Outcomes:

Children will be able to:

1. Define the term software.
2. Explain the types of software and their purpose with examples.
3. Differentiate between system software and application software.
4. Backup files.
5. Scan the System/Drive/File.
6. Use defragmentation utility

Chapter 2 : Types of Software.

Topic 3: Advanced Features of Word processor

Formatting and Editing tools are used to design how each page of a document will appear when it is printed. Additional features like find/ replace/insert are used for editing purposes and in some cases, to create a report. Using drawing tools like shape tools, user can insert pictures as per their requirements to enhance the look of the document.

Learning Outcomes:

Children will be able to:

1. Enhance the document by using advanced formatting tools.

2. Use editing tools.
3. Use drawing tools.

Chapter 4 : More on MS Word 2016.

Chapter 5 : Inserting Tables in MS Word.

Topic 4: Presentation software – Special Effects

Presentations can be enhanced in an attractive manner by using various tools like clipart, word art, animations, etc. These ensure that important points are highlighted effectively.

Learning Outcomes:

Children will be able to:

1. Express the topic attractively using different templates.
2. Enhance the presentation by applying formatting effects and inserting objects.

Chapter 6 : MS PowerPoint 2016

Topic 5: An Introduction to Scratch Programming

Programming is the process of taking an algorithm/stepwise-thinking and encoding it into a programming language, so that a computer can execute it and produce the desired output.
Scratch is a free programming software that enables children to create their own games, animated stories and interactive art.

Learning Outcomes:

Children will be able to:

1. Explain the concept of programme and programming.
2. Work on scratch interface.
3. Handle basic commands.
4. Develop logical thinking.

Chapter 9 : Introduction to Scratch.

Topic 6: Internet Services

Internet services enables the user to access and gain information through use of the internet. There are different ways to connect to the internet. For example, dial-up, broadband and wireless services.

Learning Outcomes:

Children will be able to:

1. Identify the ways to connect to the Internet services.
2. Use different internet services.
3. Follow Netiquettes while communicating online.

Chapter 8 : Internet.

Grade V

Arts Education

Theme 1: Form | CLASSES 04 - 05

Learning Outcomes:

Children will be able to:

1. Identify different geometrical shapes in furniture items, school buildings, plants and trees and other objects..
2. Draw and paint objects using different shapes of different sizes on paper.
3. Make objects using shapes of different sizes with clay.
4. Draw patterns using different lines namely: straight, curved, smooth, crooked, vertical and horizontal lines.
5. Share and communicate (verbally and in writing) the meaning of form.
6. Differentiate between geometrical and natural forms.
7. Demonstrate use of extended vocabulary related to the theme.
8. Link the experience and understanding of forms (in line, shape and size) with mathematics.
9. Engage and learn to observe and explore immediate surroundings for the joy of knowing more.

Theme 2: Colour | CLASSES 04 - 05

Learning Outcomes:

1. Identify and name different colors / shades of household objects, furniture items, flowers, vegetables, fruits, plants & trees etc..
2. Drawing and painting images of their liking from immediate surroundings and color them with their appropriate colors.
3. Create secondary colors and their shades by mixing primary colors.
4. Identify neutral colors and use them for creating tones.
5. Demonstrate use of extended vocabulary related to the theme.
6. Link the experience and understanding of colors with learning of language and EVS.
7. Feel better emotionally/internally after experiencing and expressing through colors.
8. Appreciate the beauty of colors in nature and in human-made objects around.

Theme 3: Texture | CLASSES 04 - 05

Learning Outcomes:

Children will be able to:

1. Identify and name different textures and surfaces of the household objects, flowers, vegetables, fruits, plants & trees, animals, fabrics, wool, sponge etc..
2. Create new textures in 2-D and 3-D mediums and materials.
3. Demonstrate use of extended vocabulary related to the theme.
4. Link the experience and understanding of textures with learning of language and EVS.
5. Engage and learn to observe and explore immediate surroundings for the joy of knowing and experiencing different surfaces and textures.
6. Appreciate beauty and the variety of surfaces in nature.

Theme 4: Composition | CLASSES 04 - 05

Learning Outcomes:

Children will be able to:

1. Select compositions from the immediate surroundings, using the viewfinder.
2. Draw or paint compositions on themes, such as. festival/s I like, Hockey/Football/Cricket match, landscape, seascape..
3. Compose posters and greeting cards.
4. Install 3-D objects in a given theme.
5. Demonstrate use of extended vocabulary related to the theme.
6. Link the experiences gained while creating composition, with learning of other subjects.
7. Engage with and learn to observe and explore their immediate surroundings for the joy of knowing different compositions.
8. Feel better emotionally/internally after communicating and expressing through their
9. Arrangement of visual images.

Theme 5: Tools and Techniques | CLASSES 04 - 05

Learning Outcomes:

Children will be able to:

1. Identify and name the age appropriate tools and materials.
2. Differentiate and describe different age appropriate techniques, such as. drawing, coloring, painting, pen & ink, block printing, 2-D and 3-D work, origami, coil, slab and pinching methods of clay modeling, paper masks, 3-D masks and puppets, simple crafts (local specific) rangoli, wall painting, etc..
3. Create artworks using age appropriate tools and techniques.
4. Demonstrate use of extended vocabulary related to the theme.
5. Create their own tools and techniques of visual expression.
6. Link the experience and understanding of tools and techniques with learning of other subjects.
7. Engage and learn to explore the use of materials for the joy of knowing and creating with different materials.
8. Appreciate beauty and a variety of methods and materials for visual expression.

Theme 6: Art Vocabulary (Visual Arts) | CLASSES 04 - 05

Learning Outcomes:

Children will be able to:

1. Identify different tools and techniques, such as. round brushes, flat brushes, hard and soft brushes, type of scissors, rollers/rolling pins, drawing & painting, printing, clay modeling, pottery, spray painting, Reverse techniques, origami, construction, Round and relief work, 2-D and 3-D work, paper craft.
2. Name terms/specifications of materials, such as. colors, medium of colors, water colors, pastel colors, neutral colors, shades and tones of colors, paints, background and foreground in the composition, landscapes, seascapes, lines of different types, shapes and sizes .
3. Narrate art experiences using appropriate (age appropriate) vocabulary.
4. Communicate their art experience with appropriate use of art vocabulary.
5. Demonstrate use of extended vocabulary related to the theme.
6. Link the knowledge of art vocabulary with learning of other subjects.
7. Appreciate beauty and variety of artistic expression using appropriate vocabulary.

Theme 7: Responding to the Artifacts and Nature | CLASSES 04 - 05

Learning Outcomes:

Children will be able to

1. Describe the objects, scenes and situations of their liking in the immediate surroundings.
2. Respond to the good in art work done by their classmates and self.
3. Appreciate nature and natural beauty based on form, colors, composition, etc.. such as plants, flowers, animals, lakes, deserts, sea beaches, rivers, mountains, clouds, wind and rain, sun, moon and stars, rainy day, starry night, sunny day.
4. Describe artifacts of different kinds. paintings, pottery, terracotta and sculptures, installations, etc. of known artists.
5. Write their experiences of the art museum, by explaining artifacts seen.
6. Demonstrate use of extended vocabulary related to the theme.
7. Link the knowledge of appreciation and responding to nature and to the artifacts with learning of other subjects.