Class V (English)

Suggested Pedagogical Processes

The learner may be provided opportunities in pairs/groups/ individually and

encouraged todiscuss and present orally, and then write answers to text-based questions, short descriptive paragraphs

- participate in activities which involve English language use, such as role play, enactment, dialogue and dramatisation of stories read and heard
- look at print-rich environment such as newspapers, signs and directions in public places, pamphlets, and suggested websites for language learning
- prepare speech for morning assembly, group discussions, debates on selected topics, etc.
- infer the meaning of unfamiliar words from the context while reading a variety of texts
- refer to the dictionary, for spelling, meaning and to find out synonyms and antonyms
- understand the use of synonyms, such as 'big/large', 'shut/ close', and antonyms like inside/outside, light/dark from clues in context
- relate ideas, proverbs and expressions in the stories that they have heard, to those in their mother tongue/surroundings/cultural context
- read independently and silently in English/ Braille, adventure stories, travelogues, folk/ fairy tales etc.
- find out different forms of writing (informal letters, lists, stories leave application, notice etc.)
- learn grammar in a context and integrated manner (such as use ofnouns, adverbs; differentiates between simple past and simple present verbs.)
- use linkers to indicate connections between words and sentences such as 'Then', 'After that', etc.
- take dictation of sort texts such as lists, paragraphs and dialogues.
- enrich vocabulary through crossword puzzles, word chain etc.

Learning Outcomes

The learner-

- answers coherently in written or oral form to questions in English based on day-today life experiences, unfamiliar story, poem heard or read.
- recites and shares English songs, poems, games, riddles, stories, tongue twisters etc, recites and shares with peers and family members.
- acts according to instructions given in English, in games/sports, such as 'Hit the ball!' 'Throw the ring.' 'Run to the finish line!'etc.
- reads independently in English storybooks, news items/ headlines, advertisements etc. talks about it, and composes short paragraphs
- conducts short interviews of people around him e.g interviewing grandparents, teachers, school librarian, gardener etc.
- uses meaningful grammatically correct sentences to describe and narrate incidents; and for framing questions
- uses synonyms such as'big/large', 'shut/ close', and antonyms like inside/outside, light/dark from clues in context
- reads text with comprehension, locates details and sequence of events
- connects ideas that he/she has inferred, through reading and interaction, with his/ her personal experiences
- takes dictation for different purposes, such as lists, paragraphs, dialogues etc.
- uses the dictionary for reference
- identifies kinds of nouns, adverbs; differentiates between simple past and simple present verbs
- writes paragraphs in English from verbal, visual clues, with appropriate punctuation marks and linkers
- writes a 'mini biography' and 'mini autobiography'
- writes informal letters, messages and e-mails
- reads print in the surroundings (advertisements, directions, names of places etc), understands and answers queries

Learning Outcomes at the Elementary Stage



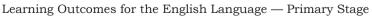
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- look at cartoons/ pictures/comic strips with or without words and speak/write a few sentences about them.
- write a 'mini biography' and 'mini autobiography'
- attempts to write creatively (stories, poems, posters, etc)
- writes and speaks on peace, equality etc suggesting personal views
- appreciates either verbally / in writing the variety in food, dress, customs and festivals as read/heard in his/her day-to day life, in storybooks/ heard in narratives/ seen in videos, films etc.





Class V (Mathematics)

Suggested Pedagogical Processes

The learner may be provided opportunities in pairs/groups/ individually and encouraged to —

- discuss on contexts/situations in which a need arises to go beyond the number 1000 so that extension of number system occurs naturally. For example number of grams in 10 kg, number of metres in 20 km, etc.
- represents numbers beyond 1000 (up to 100000) using place value system, like extend learning of numbers beyond 9 thousand, how to write number one more than 9999
- operate (addition and subtractions) large numbers using standard algorithm. This may be identified as extension of algorithm for one more place
- use a variety of ways to divide numbers like equal distribution and inverse process of multiplication
- estimate the results of number operation through approximations and then verifies it
- develop the idea of multiples of a number through its multiplication facts, skip counting on a number line and number grid
- develop the concept of factors through division of numbers and multiples
- discuss and use contexts/ situations from daily life in activities to develop understanding about fractional part of the group like, how many bananas are there in half a dozen bananas?
- compares fractions through various ways like paper folding, shading of diagram etc.
- develop the idea of equivalence of fractions through various activities. For example, by paper folding and shading:



 $\frac{1}{2}$ is the same as



- understand the idea of decimal fractions (1/10 th and 1/100 th)
- develop earlier understanding of angles and to describe it.

Learning Outcomes

The learner —

- works with large numbers
 - reads and writes numbers bigger than 1000 being used in her/his surroundings
 - performs four basic arithmetic operations on numbers beyond 1000 by understanding of place value of numbers
 - divides a given number by another number using standard algorithms
 - estimates sum, difference, product and quotient of numbers and verifies the same using different strategies like using standard algorithms or breaking a number and then using operation. For example, to divide 9450 by 25, divide 9000 by 25, 400 by 25, and finally 50 by 25 and gets the answer by adding all these quotients.
- acquires understanding about fractions
 - finds the number corresponding to part of a collection
 - identifies and forms equivalent fractions of a given fraction
 - expresses a given fraction 1/2, 1/4, 1/5 in decimal notation and vice-versa. For example, in using units of length and money- half of Rs. 10 is Rs.5
 - converts fractions into decimals and vice versa
- explores idea of angles and shapes
 - classifies angles into right angle, acute angle, obtuse angle and represents the same by drawing and tracing
 - identifies 2D shapes from the immediate environment that have rotation and reflection symmetry like alphabet and shapes
 - makes cube, cylinder and cone using nets designed for this purpose
- relates different commonly used larger and smaller units of length, weight and volume and converts larger units to smaller units and vice versa
- estimates the volume of a solid body in known units like volume of a bucket is about 20 times that of a mug

Learning Outcomes at the Elementary Stage











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- observe angles in their surroundings and compare their measures. For example, whether the angle is smaller, bigger or equal to the corner of a book which is a right angle; further, classify the angles
- introduce protractor as a tool for measuring angles and use it to measure and draw angles
- explore symmetry by using paper folding/ paper cutting
- explore shapes so that they can find out that some shapes look the same only after one complete rotation/ part of a rotation
- plan their shopping— to make estimates of money (in different denominations) and the balance money one would get
- conducts role play of shopkeepers/ buyers in which students create bills
- measure length of different objects using a tape/ metre scale.
- appreciates the need of converting bigger units to smaller units
- discuss experiences on units of capacity printed on water bottle, soft drink pack, etc.
- fill a given space by using different solid shapes, cubes, cuboids, prisms, spheres, etc. and encourage students to decide which solid shape is more appropriate
- measure volume by counting the number of unit cubes that can fill a given space
- explore patterns in numbers while doing various operations and to generalise them as patterns in square numbers







- Triangular number as shown below also forms a pattern
 - •





- collect information and display it in a pictorial form. For example, heights of students from their class and represent it pictorially
- collect and discuss various diagrams/ bar charts from the newspapers/ magazines may be in the class.

- applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals
- identifies the pattern in triangular number and square number
- collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it.

Learning Outcomes in Mathematics — Elementary Stage



Learning Outcomes Part 1 Folder.indd 65 13-04-2017 16:34:26

सीखने-सिखाने की प्रक्रिया

सभी शिक्षार्थियों (भिन्न रूप से सक्षम बच्चों सहित) को बच्चे -व्यक्तिगत, सामृहिक रूप से कार्य करने के अवसर और प्रोत्साहन दिया जाए ताकि उन्हें-

- विभिन्न विषयों, स्थितियों, घटनाओं, अनुभवों, कहानियों, कविताओं आदि को अपने तरीके और अपनी भाषा में (मौखिक/लिखित/सांकेतिक रूप से) कहने-सुनाने/प्रश्न पूछने, टिप्पणी करने, अपनी राय देने की आज़ादी हो।
- पुस्तकालय/कक्षा में अलग-अलग तरह की कहानियाँ, कविताएँ अथवा/बाल साहित्य, स्तरानुसार सामग्री, साइनबोर्ड, होर्डिंग, अखबारों की कतरनें उनके आस-पास के परिवेश में उपलब्ध हों और उन पर चर्चा करने के मौके हों।
- तरह-तरह की कहानी, कविताओं, पोस्टर आदि को संदर्भ के 🔸 अनुसार पढ़कर समझने-समझाने के अवसर उपलब्ध हों।
- सुनी, देखी, पढ़ी बातों को अपने तरीके से, अपनी भाषा में लिखने के अवसर हों।
- ज़रूरत और संदर्भ के अनुसार अपनी भाषा गढ़ने (नए शब्द/ वाक्य/अभिव्यक्तियाँ बनाने) और उनका इस्तेमाल करने के अवसर हों।
- एक-दूसरे की लिखी हुई रचनाओं को सुनने, पढ़ने और उस पर 🍨 अपनी राय देने, उसमें अपनी बात को जोड़ने, बढ़ाने और अलग-अलग ढंग से लिखने के अवसर हों।
- आस-पास होने वाली गतिविधियों/घटने वाली घटनाओं को लेकर प्रश्न करने, बच्चों से बातचीत या चर्चा करने, टिप्पणी करने. राय देने के अवसर उपलब्ध हों।
- विषय-वस्तु के संदर्भ में भाषा की बारीकियों और उसकी नियमबद्ध प्रकृति को समझने और उनका प्रयोग करने के अवसर
- नए शब्दों को चित्र शब्दकोश/शब्दकोश में देखने के अवसर उपलब्ध हों।
- अन्य विषयों, व्यवसायों, कलाओं आदि (जैसे-गणित, विज्ञान, सामाजिक अध्ययन, नृत्यकला, चिकित्सा आदि) में प्रयुक्त होने वाली शब्दावली को समझने और उसका संदर्भ एवं स्थिति के अनुसार इस्तेमाल करने के अवसर हों।

सीखने के प्रतिफल (Learning Outcomes)

- स्नी अथवा पढ़ी रचनाओं (हास्य, साहसिक, सामाजिक आदि विषयों पर आधारित कहानी, कविता आदि) की विषय-वस्त, घटनाओं, चित्रों और पात्रों, शीर्षक आदि के बारे में बातचीत करते हैं/प्रश्न पूछते हैं/अपनी स्वतंत्र टिप्पणी देते हैं/अपनी बात के लिए तर्क देते हैं/निष्कर्ष निकालते हैं।
- अपने आस-पास घटने वाली विभिन्न घटनाओं की बारीकियों पर ध्यान देते हुए उन पर मौखिक रूप से अपनी प्रतिक्रिया व्यक्त करते हैं/प्रश्न पूछते हैं।
- भाषा की बारीकियों पर ध्यान देते हए अपनी (मौखिक) भाषा गढते हैं।
- विविध प्रकार की सामग्री (अखबार, बाल साहित्य, पोस्टर आदि) में आए संवेदनशील बिंदुओं पर (मौखिक/लिखित) अभिव्यक्ति करते हैं, जैसे-'ईदगाह' कहानी पढ़ने के बाद बच्चा कहता है- मैं भी अपनी दादी की खाना बनाने में मदद करता हाँ।
- विभिन्न स्थितियों और उद्देश्यों (बुलेटिन पर लगाई जाने वाली सूचना, कार्यक्रम की रिपोर्ट, जानकारी आदि प्राप्त करने के लिए) के लिए पढते और लिखते हैं।
- अपनी पाठ्यपुस्तक से इतर सामग्री (अखबार, बाल पत्रिका, होर्डिंग्स आदि) को समझते हुए पढ़ते और उसके बारे में बताते
- स्नी अथवा पढ़ी रचनाओं (हास्य, साहसिक, सामाजिक आदि विषयों पर आधारित कहानी, कविता आदि) की विषय-वस्त, घटनाओं, चित्रों और पात्रों, शीर्षक आदि के बारे में बातचीत करते हैं/प्रश्न पूछते हैं/अपनी स्वतंत्र टिप्पणी देते हैं/अपनी बात के लिए तर्क देते हैं/निष्कर्ष निकालते हैं।
- अपरिचित शब्दों के अर्थ शब्दकोश से खोजते हैं।
- स्वेच्छा से या शिक्षक द्वारा तय गतिविधि के अंतर्गत लेखन की प्रक्रिया की बेहतर समझ के साथ अपने लेखन को जाँचते हैं और लेखन के उद्देश्य और पाठक के अनुसार लेखन में बदलाव करते हैं, जैसे- किसी घटना की जानकारी के बारे में बताने के लिए स्कुल की भित्ति पत्रिका के लिए लिखना और किसी दोस्त को पत्र लिखना।
- भाषा की बारीकियों पर ध्यान देते हुए अपनी भाषा गढ़ते हैं और उसे अपने लेखन/ब्रेल में शामिल करते हैं।

प्राथमिक स्तर पर हिंदी भाषा सीखने के प्रतिफल



- पाठ्यपुस्तक और उससे इतर सामग्री में आए प्राकृतिक, सामाजिक एवं अन्य संवेदनशील मुद्दों को समझने और उन पर चर्चा करने के अवसर उपलब्ध हों।
- भाषा की व्याकरिणक इकाइयों (जैसे— कारक-चिह्न, क्रिया, काल, विलोम आदि) की पहचान करते हैं और उनके प्रति सचेत रहते हुए लिखते हैं।
 - विभिन्न उद्देश्यों के लिए लिखते हुए अपने लेखन में विराम-चिह्नों, जैसे– पूर्ण विराम, अल्प विराम, प्रश्नवाचक चिह्न, उद्धरण चिह्न का सचेत इस्तेमाल करते हैं।
 - स्तरानुसार अन्य विषयों, व्यवसायों, कलाओं आदि (जैसे– गणित, विज्ञान, सामाजिक अध्ययन, नृत्यकला, चिकित्सा आदि) में प्रयुक्त होने वाली शब्दावली को समझते हैं और संदर्भ एवं स्थिति के अनुसार उनका लेखन में इस्तेमाल करते हैं।
 - अपने आस-पास घटने वाली विभिन्न घटनाओं की बारीकियों पर ध्यान देते हुए उन पर लिखित रूप से अपनी प्रतिक्रिया व्यक्त करते हैं।
 - उद्देश्य और संदर्भ के अनुसार शब्दों, वाक्यों, विराम-चिह्नों का उचित प्रयोग करते हुए लिखते हैं।
 - पाठ्यपुस्तक और उससे इतर सामग्री में आए संवेदनशील बिंदुओं पर लिखित/ब्रेल लिपि में अभिव्यक्ति करते हैं।
 - अपनी कल्पना से कहानी, कविता, पत्र आदि लिखते हैं। कविता,
 कहानी को आगे बढ़ाते हुए लिखते हैं।



Class V (EVS)

Suggested Pedagogical Processes

Learning Outcomes

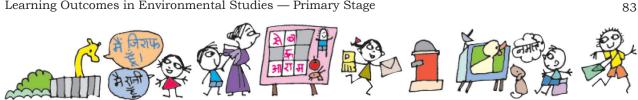
The learners may be provided opportunities in pairs/groups/ individually and encouraged to -

- observe and explore the animals for the unique and unusual sense of sight, smell, hear, sleep, and their response to light, heat, sound etc.
- explore the sources of water in their neighbourhood, and how fruit, vegetables, grains, water, reach their home and kind of processes/techniques employed to convert grain to flour and flour to Roti, purification of water etc.
- share experiences and discuss about the information collected or places visited with peers, teachers and elders
- prepare guide routes to reach from one place to another
- collect information from pictures / elders/ books/ newspapers/ magazines/web resources / museums etc. about animals which have very sharp sense of hearing, smell and vision, different landforms such as plain area, hilly area, deserts, etc. and the varieties of flora-fauna, lives of people in such places
- discuss with teachers and elders and use pictures, paintings, visit museums and collect information related to the lives for food, shelter, availability of water, means of livelihood, practices, customs, techniques, of different regions and different time periods
- visit petrol pumps, nature centers, science parks, water treatment plant, bank, health centre, wildlife sanctuaries, cooperative, monument, museum and if possible, far off places with different landforms, lifestyles and livelihoods, etc. to observe and interact with people living there and share experiences in different ways

The learner —

- explains the super senses and unusual features (sight, smell, hear, sleep, sound, etc.) of animals and their responses to light, sound, food etc.
- explains the use of technology and the process of accessing basic needs (food, water etc.) in our daily life. (e.g., farm produce to kitchen; grains to Roti, preservation techniques, storage and tracking of water source)
- describes the interdependence among animals, plants and humans. (e.g., communities earning livelihood animals, dispersal of seeds etc.)
- explains the role and functions of different institutions in daily life. (Bank, Panchayat, cooperatives, police station, etc.)
- establishes linkages among climate, resources (food, water, shelter, livelihood) and cultural life. (e.g., life in distant/difficult areas like hot/cold deserts)
- groups objects, materials, activities for features and properties such as- shape, taste, colour, texture, sound, traits etc.
- traces the changes in practices, customs, techniques of past and present through coins, paintings, monuments, museum etc. and interacting with elders. (e.g., cultivation, conservation, festivals, clothes, transport, materials or tools, occupations, buildings and houses, practices activities like cooking, eating, working)
- guesses (properties, conditions phenomena), estimates spatial quantities (distance, area, volume, weight etc.) and time in simple standard units and verifies using simple tools/set ups. (e.g., floating/ sinking/ mixing/evaporation /germination /spoilage /breathing /taste)

Learning Outcomes in Environmental Studies — Primary Stage



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- observe and share experiences for different phenomena such as how water evaporates, dissolves condenses. and different substances under different conditions, and how food gets spoilt, how seeds germinate and the direction in which roots, shoot grow and conduct simple experiments and activities to find out the same
- conduct activities and simple experiments to check the properties / features of different objects/ seeds/ water/waste materials, etc.
- observe, explore surroundings and critically think how seeds reach from one place to another, how the plants and trees grow at places where no one plants them e.g., forests, who waters them and who owns them
- visit the night shelters, people living in camps, old age homes, in surroundings and interact with old and/or differently abled and who change their means of earning to find out where do people belong to and why they left their places, where their ancestors had been living for ages, migration of people and debate on various such issues in the surroundings
- enquire from parents, teachers, peers and elders at home/community to critically think and discuss to reflect on experiences of children related to situations at home, school, neighbourhood
- discuss freely with peers, teachers and elders about the biases, prejudices, and stereotypes by providing counter examples to one another
- visit departments/ bodies in the surroundings e.g., Bank, Jal Board, and Hospital and Disaster management body and interact with related people and interpret different documents related to them

- records observations and experiences; information in an organised manner (e.g., in tables/ sketches/ bar graphs/ pie charts) and predicts patterns in activities/ phenomena (e.g., floating, sinking, mixing, evaporation, germination, spoilage) to establish relation between cause and effect.
- identifies signs, directions, location of different objects/landmarks of a locality / place visited in maps and predicts directions in context of positions at different places for a location
- creates posters, designs, models, set ups, local dishes, sketches, maps (of neighbourhood/ different places visited) using a variety of local/waste material and writes poems/ slogans/travelogue etc.
- voices opinions on issues observed/ experienced and relates practices happenings to larger issues of society. (e.g., discrimination for access/ownership of resources, migration/ displacement / exclusion, child rights)
- suggests ways for hygiene, health, managing waste, disaster/emergency situations and protecting/saving resources (land, fuels, forests, etc.) and shows sensitivity for the disadvantaged/deprived.

Learning Outcomes at the Elementary Stage











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- watch videos on different types of landforms and the variety of life forms found in such places, different institutions which cater to the need of societies, behaviour of animals, water scarcity, etc. followed by meaningful discussions and debates on occupations that derive from the peculiar geographical characteristics of different regions
- perform simple activities, record the observations in the form of table/ sketch/ bar graph/ pie chart/ oral/ written form, etc. interpret and present their findings
- discuss issues of living beings (plants and animals) as rightful inhabitants of earth, animal rights and ethical treatment to animals
- share experiences of people who work selflessly for common good and what motivates them
- participate actively and undertake initiatives of care, share empathy, leadership by working together in groups e.g., in different indoor/outdoor/local/contemporary activities, games, dance, fine art, carry out projects/role play for taking care of a plant(s), feed birds/animals, things/ elderly/differently abled around them
- conduct mock drills for emergency and disaster preparedness.

Note: For addressing the inclusive aspect in EVS please refer to the Guidelines given for Children With Special Needs under Science and Social Science sections.

Learning Outcomes in Environmental Studies — Primary Stage



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