

Class VII (English)

Suggested Pedagogical Processes	Learning Outcomes
The learner may be provided opportunities in pairs groups/ individually and encouraged to– - consciously listen to songs/poems/stories/ prose texts in English through interaction and being exposed to print-rich environment - participate in different events/ activities in English in the classroom, school assembly; and organised by different Institutions - listen to English news and debates (TV, Radio) as input for discussion and debating skills - watch and listen to English movies, serials, educational channels with sub-titles, audio-video materials, teacher reading out from materials and eminent speakers - share their experiences such as journeys, visits, etc. in pairs /groups - introduce self, converse with other persons, participate in role play / make speeches, reproduce speeches of great speakers - summarise orally and in writing a given text, stories, or an event - learn vocabulary associated with various professions (e.g. cook, cobbler, farmer, blacksmith, doctor etc) - read stories / plays (from books/ other sources in English / Braille) and locate details, sequence of ideas and events and identify main idea - use material from various sources in English and other languages to facilitate comprehension and co-relation - understand the rules of grammar through a variety of situations and contexts focussing on noun, pronoun, verb, determiners, time and tense, passivisation, adjective, adverb, etc. - interpret tables, charts, diagrams and maps, and incorporate the information in writing - think critically on inputs based on reading and interaction and try to provide suggestion/solutions to the problems	The learner– - answers questions orally and in writing on a variety of texts - reads aloud stories and recites poems with appropriate pause, intonation and pronunciation - participates in different activities in English such as role play, poetry recitation, skit, drama, debate, speech, elocution, declamation, quiz, etc., organised by school and other such organisations - engages in conversations in English with family, friends, and people from different professions such as shopkeeper, salesperson etc. using appropriate vocabulary - responds to different kinds of instructions, requests, directions in varied contexts viz. school, bank, railway station - speaks about excerpts, dialogues, skits, short films, news and debate on TV and radio, audio-video programmes on suggested websites - asks and responds to questions based on texts (from books or other resources) and out of curiosity - reads textual/non-textual materials in English/Braille with comprehension - identifies details, characters, main idea and sequence of ideas and events in textual / non-textual material - thinks critically, compares and contrasts characters, events, ideas, themes and relates them to life - reads to seek information in print / online, notice board, signboards in public places, newspaper, hoardings etc. - takes notes while teacher teaches /from books / from online materials. - infers the meaning of unfamiliar words by reading them in context - refers dictionary, thesaurus and encyclopedia to find meanings / spelling of words while reading and writing



raised. (The themes could be social issues, environment problems, appreciation of culture and crafts)

- refer sources such as dictionary, thesaurus and encyclopedia to facilitate reading
- read text, both familiar and unfamiliar, and write answers for comprehension and inferential questions
- take dictation of a paragraph with a variety of sentence structures.
- draft, revise and write with appropriate beginning, middle and end, along with punctuation marks
- know the features of various types of writing: messages, emails, notice, letter, report, short personal/ biographical experiences etc.
- use ICT (Net, mobile, website, Youtube, TED talks etc) to browse for information, for projects/PPT discussion, debate etc.
- attempt creative writing, like stories, poems, dialogues, skits etc.
- visit a language laboratory
- write a Book Review.

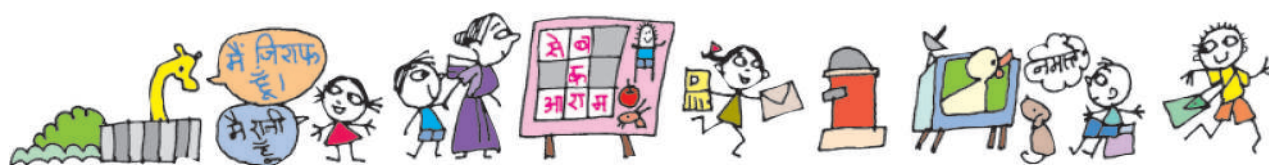
- reads a variety of texts for pleasure e.g. adventure stories and science fiction, fairy tales, biography, autobiography, travelogue etc. (extensive reading)
- uses appropriate grammatical forms in communication (e.g. noun, pronoun, verb, determiners, time and tense, passivisation, adjective, adverb, etc)
- organises sentences coherently in English / in Braille with the help of verbal and visual clues and with a sense of audience
- writes formal letters, personal diary, list, email, SMS, etc.
- writes descriptions / narratives showing sensitivity to gender, environment and appreciation of cultural diversity
- writes dialogues from a story and story from dialogues
- visits a language laboratory.
- writes a Book Review.

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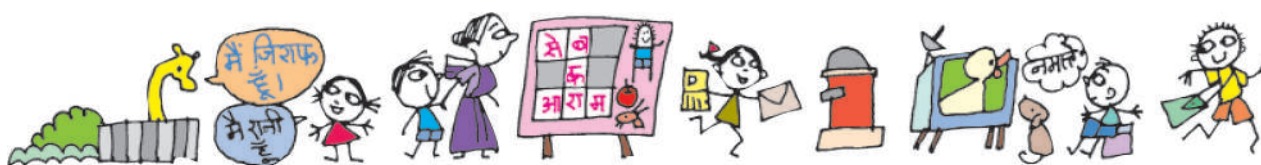
- writes dialogues from a story and story from dialogues

- writes a Book Review.



Class VII (Mathematics)

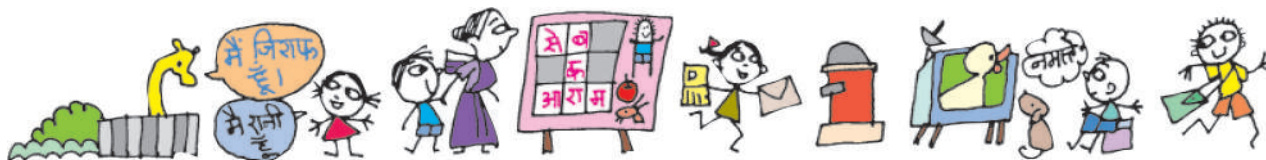
Suggested Pedagogical Processes	Learning Outcomes
The learner may be provided opportunities in pairs/groups/ individually and encouraged to— - provide contexts for exploring the rules of multiplication and division of integers. This can be done through number line or number patterns. For example : $3 \times 2 = 6$ $3 \times 1 = 3$ $3 \times 0 = 0$ $3 \times (-1) = -3$ $3 \times (-2) = -6$ So $3 \times (-3) = -9$ means a positive integer multiplied by a negative integer given a negative integer For example: (a) $\frac{1}{4} \times \frac{1}{2}$ is $\frac{1}{4}$ of $\frac{1}{2}$ is $\frac{1}{8}$ means number of $\frac{1}{4}$ in $\frac{1}{2}$ are two  (b) $\frac{1}{2} \div \frac{1}{4}$  - explore the multiplication/ division of fractions/decimals through pictures/paper folding activities /daily life examples. - discuss the situations that require the use of fractional numbers in opposite direction, such as moving $10\frac{1}{2}$ m to the right of a tree and $15\frac{2}{3}$ m to its left etc. - involve children in exploring how repeated multiplication of numbers can be expressed in short form. For example $2 \times 2 \times 2 \times 2 \times 2 = 2^5$ can be expressed as 2^5.	The learner— - multiplies/divides two integers - interprets the division and multiplication of fractions. - for example interprets $\frac{2}{3} \times \frac{4}{5}$ as $\frac{2}{3}$ of $\frac{4}{5}$. Also $\frac{1}{2} \div \frac{1}{4}$ is interpreted as how many $\frac{1}{4}$ make $\frac{1}{2}$? - uses algorithms to multiply and divide fractions/decimals. - solves problems related to daily life situations involving rational numbers - uses exponential form of numbers to simplify problems involving multiplication and division of large numbers. - represents daily life situations in the form of a simple equation and solves it - adds/subtracts algebraic expressions - distinguishes quantities that are in proportion. For example, tells that 15, 45, 40, 120 are in proportion as $\frac{15}{45}$ is the same as $\frac{40}{120}$ - solves problems related to conversion of percentage to fraction and decimal and vice versa - calculates profit/loss percent and rate percent in simple interest - classifies pairs of angles based on their properties as linear, supplementary, complementary, adjacent and vertically opposite and finds value of the one when the other is given. - verifies the properties of various pairs of angles formed when a transversal cuts two lines - finds unknown angle of a triangle when its two angles are known - explains congruency of triangles on the basis of the information given about them like (SSS, SAS, ASA, RHS) - using ruler and a pair of compasses constructs, a line parallel to a given line from a point outside it and triangles



- explore the possible combinations of variables and constants using different operations to form algebraic expressions in various contexts.
- provide situations from daily life that lead to setting up of equations and choosing the appropriate value of the variable that equate both sides.
- conduct activity of adding /subtracting number of objects of same category from daily life. For example number of notebooks obtained when 3 notebooks are added to a group of 5 notebooks.
- evolve the understanding of the concepts of ratios and percentage (equality of ratio.)
- provide daily life situations based on profit/loss and simple interest that show the use of percentage
- explore different examples from daily life in which pair of angles are involved with a common vertex, e.g., Scissors, Road Junction, Letter X, T, etc
- verify the properties of various pairs of angles by drawing diagram (One group can give measure of one angle, the other group needs to give the measure of other angle.)
- visualise the relationship between various pairs of angles when a transversal cuts two lines (parallel and non-parallel), angles of triangle and relationship among its sides through diagrams and upper primary mathematics kit (developed by NCERT)
- draw different types of triangles, ask them to measure angles of all triangles, and verify
- explore exterior angle property of triangles; and Pythagoras theorem
- identify symmetrical figures from their environment and which shows rotational symmetry
- visualise the symmetry through paper folding activities
- establish congruence criterion and later on verify the property by superimposing one above the other
- demonstrate the construction of a line parallel to the given line from a point outside it through students active participation
- finds out approximate area of closed shapes by using unit square grid/ graph sheet
- calculates areas of the regions enclosed in a rectangle and a square
- finds various representative values for simple data from her/his daily life contexts like mean, median and mode
- recognises variability in real life situation such as, variations in the height of students in her class and uncertainty in happening of events like throwing a coin
- interprets data using bar graph such as consumption of electricity is more in winters than summer, runs scored by a team in first 10 overs etc.

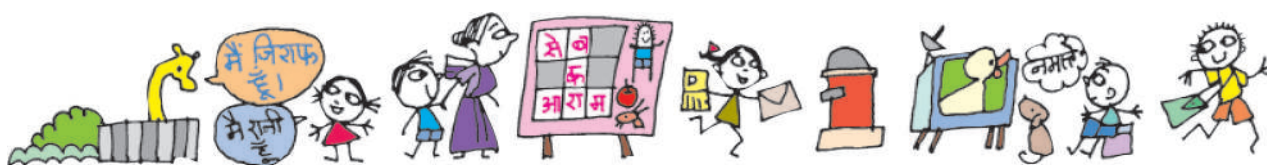


- construct the simple triangle by using ruler and compasses
- cut out different closed figures drawn on hard boards/ thick papers. trace the figures in the given graph sheets
- count the exact number of square units occupied by the traced figure (Complete, Half, etc). and find out the approximate area of these figures
- through discussion motivate them to arrive at the formula for area of a rectangle/square
- find a representative value of data i.e. mean, mode or median of ungrouped data. Encourage them to arrange it in a tabular form and represent it by bar graphs
- draw inferences for future events from the existing data
- discuss the situations where the term 'chance' can be used, for example, what are the chances of winning today as chances of getting 6 while rolling a dice
- sum of two sides of a triangle is greater than the third side.



कक्षा VII (हिंदी)

सीखने की प्रक्रिया	सीखने के प्रतिफल (Learning Outcomes)
सभी शिक्षार्थियों (भिन्न रूप से सक्षम बच्चों सहित) को व्यक्तिगत, सामूहिक रूप से कार्य करने के अवसर और प्रोत्साहन दिया जाए ताकि उन्हें— - अपनी भाषा में बातचीत तथा चर्चा करने के अवसर हों। - प्रयोग की जाने वाली भाषा की बारीकियों पर चर्चा के अवसर हों। - समूह में कार्य करने और एक-दूसरे के कार्यों पर चर्चा करने, राय लेने-देने, प्रश्न करने की स्वतंत्रता हो। - हिंदी के साथ-साथ अपनी भाषा की सामग्री पढ़ने-लिखने की सुविधा (ब्रेल/ सांकेतिक रूप में भी) और उन पर बातचीत की आजादी हो। - अपने परिवेश, समय और समाज से संबंधित रचनाओं को पढ़ने और उन पर चर्चा करने के अवसर हों। - अपनी भाषा गढ़ते हुए लिखने संबंधी गतिविधियाँ हो, जैसे— शब्द खेल, अनौपचारिक पत्र, तुकबंदियाँ, पहेलियाँ, संस्मरण आदि। - सक्रिय और जागरूक बनाने वाली रचनाएँ, अखबार, पत्रिकाएँ, फ़िल्म और ऑडियो-वीडियो सामग्री को देखने, सुनने, पढ़ने, और लिखकर अभिव्यक्त करने की गतिविधियाँ हों। - कल्पनाशीलता और सृजनशीलता को विकसित करने वाली गतिविधियों, जैसे— अभिनय, रोल-प्ले, कविता, पाठ, सृजनात्मक लेखन, विभिन्न स्थितियों में संवाद आदि के आयोजन हों और उनकी तैयारी से संबंधित स्क्रिप्ट लेखन और रिपोर्ट लेखन के अवसर हों। - विद्यालय/विभाग/कक्षा की पत्रिका/भित्ति पत्रिका निकालने के लिए प्रोत्साहन हो।	बच्चे— - विविध प्रकार की रचनाओं को पढ़कर समूह में चर्चा करते हैं। - किसी सामग्री को पढ़ते हुए लेखक द्वारा रचना के परिप्रेक्ष्य में कहे गए विचार को समझकर और अपने अनुभवों के साथ उसकी संगति, सहमति या असहमति के संदर्भ में अपने विचार अभिव्यक्त करते हैं। - किसी चित्र या दृश्य को देखने के अनुभव को अपने ढंग से मौखिक, /सांकेतिक भाषा में व्यक्त करते हैं। - पढ़ी गई सामग्री पर चिंतन करते हुए बेहतर समझ के लिए प्रश्न पूछते हैं/ परिचर्चा करते हैं। - अपने परिवेश में मौजूद लोककथाओं और लोकगीतों के बारे में चर्चा करते हैं और उनकी सराहना करते हैं। - विविध कलाओं, जैसे— हस्तकला, वास्तुकला, खेती-बाड़ी, नृत्यकला और इनमें प्रयोग होने वाली भाषा के बारे में जिज्ञासा व्यक्त करते हैं, उन्हें समझने का प्रयास करते हैं। - विभिन्न स्थानीय सामाजिक एवं प्राकृतिक मुद्दों /घटनाओं के प्रति अपनी तार्किक प्रतिक्रिया देते हैं, जैसे— बरसात के दिनों में हरा भरा होना? विषय पर चर्चा। - विभिन्न संवेदनशील मुद्दों/विषयों, जैसे— जाति, धर्म, रंग, जेंडर, रीति-रिवाजों के बारे में मौखिक रूप से अपनी तार्किक समझ अभिव्यक्त करते हैं। - सरसरी तौर पर किसी पाठ्यवस्तु को पढ़कर उसकी उपयोगिता के बारे में बताते हैं। - किसी पाठ्यवस्तु की बारीकी से जाँच करते हुए उसमें किसी विशेष बिंदु को खोजते हैं। - पढ़ी गई सामग्री पर चिंतन करते हुए बेहतर समझ के लिए प्रश्न पूछते हैं। - विभिन्न पठन सामग्रियों में प्रयुक्त शब्दों, मुहावरों, लोकोक्तियों को समझते हुए उनकी सराहना करते हैं। - कहानी, कविता आदि पढ़कर लेखन के विविध तरीकों और शैलियों को पहचानते हैं, जैसे— वर्णनात्मक, भावात्मक, प्रकृति चित्रण आदि। - किसी पाठ्यवस्तु को पढ़ने के दौरान समझने के लिए जरूरत पड़ने पर अपने किसी सहपाठी या शिक्षक की मदद लेकर उपयुक्त संदर्भ सामग्री, जैसे— शब्दकोश, मानचित्र, इंटरनेट या अन्य पुस्तकों की मदद लेते हैं।



- विविध कलाओं, जैसे- हस्तकला, वास्तुकला, खेती-बाड़ी, नृत्यकला आदि से जुड़ी सामग्री में प्रयुक्त भाषा के प्रति जिज्ञासा व्यक्त करते हुए उसकी सराहना करते हैं।
- भाषा की बारीकियों/व्यवस्था तथा नए शब्दों का प्रयोग करते हैं, जैसे- किसी कविता में प्रयुक्त शब्द विशेष, पदबंध का प्रयोग- आप बढ़ते हैं तो बढ़ते ही चले जाते हैं या जल-रेल जैसे प्रयोग।
- विभिन्न अवसरों/संदर्भों में कही जा रही दूसरों की बातों को अपने ढंग से लिखते हैं, जैसे- अपने गाँव की चौपाल की बातचीत या अपने मोहल्ले के लिए तरह तरह के कार्य करने वालों की बातचीत।
- हिंदी भाषा में विभिन्न प्रकार की सामग्री (समाचार-पत्र/पत्रिका, कहानी, जानकारीपरक सामग्री, इंटरनेट प्रकाशित होने वाली सामग्री आदि) को समझकर पढ़ते हैं और उसमें अपनी पसंद-नापसंद के पक्ष में लिखित या ब्रेल भाषा में अपने तर्क रखते हैं।
- अपने अनुभवों को अपनी भाषा शैली में लिखते हैं।
- विभिन्न विषयों और उद्देश्यों के लिए लिखते समय उपयुक्त शब्दों, वाक्य संरचनाओं, मुहावरों, लोकोक्तियों, विराम-चिह्नों एवं अन्य व्याकरणिक इकाइयों, जैसे- काल, क्रिया विशेषण, शब्द-युग्म आदि का प्रयोग करते हैं।
- विभिन्न संवेदनशील मुद्दों/विषयों, जैसे- जाति, धर्म, रंग, जेंडर, रीति-रिवाजों के बारे में लिखित रूप से तार्किक समझ अभिव्यक्त करते हैं।
- भित्ति पत्रिका/पत्रिका आदि के लिए तरह-तरह की सामग्री जुटाते हैं, लिखते हैं और उनका संपादन करते हैं।

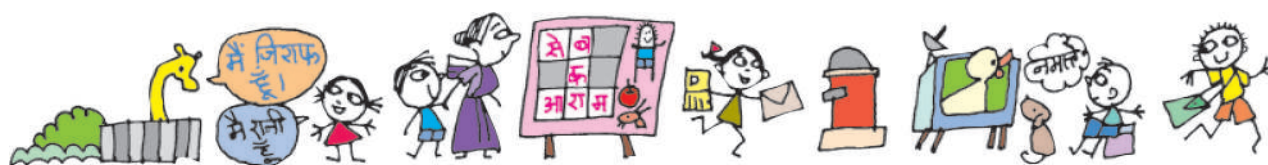


Class VII (Science)

Suggested Pedagogical Processes	Learning Outcomes
The learner is to be provided with opportunities in pairs/groups/individually in an inclusive setup and encouraged to — • explore surroundings, natural processes, phenomena using senses viz. seeing, touching, tasting, smelling, hearing • pose questions and find answers through reflection, discussion, designing and performing appropriate activities, role plays, debates, use of ICT, etc. • record the observations during the activity, experiments, surveys, field trips, etc. • analyse recorded data, interpret results and draw inference/ make generalisations and share findings with peers and adults • exhibit creativity presenting novel ideas, new designs/patterns, improvisation, etc. • internalise, acquire and appreciate values such as cooperation, collaboration, honest reporting, judicious use of resources, etc.	The learner — • identifies materials and organisms, such as, animal fibres; types of teeth; mirrors and lenses, on the basis of observable features, i.e., appearance, texture, functions, etc. • differentiates materials and organisms such as, digestion in different organisms; unisexual and bisexual flowers; conductors and insulators of heat; acidic, basic and neutral substances; images formed by mirrors and lenses, etc., on the basis of their properties, structure and function • classifies materials and organisms based on properties/characteristics, e.g., plant and animal fibres; physical and chemical changes • conducts simple investigations to seek answers to queries, e.g., Can extract of coloured flowers be used as acid-base indicator? Do leaves other than green also carry out photosynthesis? Is white light composed of many colours? • relates processes and phenomena with causes, e.g., wind speed with air pressure; crops grown with types of soil; depletion of water table with human activities, etc. • explains processes and phenomena, e.g., processing of animal fibres; modes of transfer of heat; organs and systems in human and plants; heating and magnetic effects of electric current, etc. • writes word equation for chemical reactions, e.g., acid-base reactions; corrosion; photosynthesis; respiration, etc. • measures and calculates e.g., temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc. • draws labelled diagrams/ flow charts e.g., organ systems in human and plants; electric circuits; experimental set ups; life cycle of silk moth, etc. • plots and interprets graphs e.g., distance-time graph



- constructs models using materials from surroundings and explains their working, e.g., stethoscope; anemometer; electromagnets; Newton's colour disc ,etc.
- discusses and appreciates stories of scientific discoveries
- applies learning of scientific concepts in day-to-day life, e.g., dealing with acidity; testing and treating soil; taking measures to prevent corrosion; cultivation by vegetative propagation; connecting two or more electric cells in proper order in devices; taking measures during and after disasters; suggesting methods for treatment of polluted water for reuse, etc.
- makes efforts to protect environment, e.g., following good practices for sanitation at public places; minimising generation of pollutants; planting trees to avoid soil erosion; sensitising others with the consequences of excessive consumption of natural resources, etc.
- exhibits creativity in designing, planning, making use of available resources, etc.
- exhibits values of honesty, objectivity, cooperation, freedom from fear and prejudices

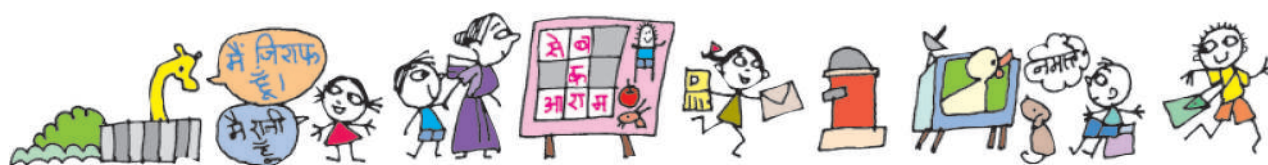


Class VII (Social Sciences)

Suggested Pedagogical Processes	Learning Outcomes
The learner be provided opportunities in pairs/groups/ individually and encouraged to — - engage with key concepts like ecosystem, atmosphere, disasters, weather, climate, climatic regions, etc., using meaningful explanations and appropriate resources - discuss and share their observations and experiences regarding various aspects of the environment, e.g., components of natural and human made environments, flora and fauna in different ecosystems/ climatic regions, kinds of pollution, sources of fresh water in their surroundings, etc. - explore globe and maps for identifying historical places/kingdoms, climatic regions, and other resources - use diagrams/ models/visuals/audio-visual materials for understanding interior of the earth, formation of different types of landforms, movements of water in the ocean, etc. - prepare models to display different types of landforms - collect samples and identify different types of rocks from the vicinity - participate in mock drill for earthquakes or other disasters - discuss factors, both natural and human-made that cause disasters like tsunamis, floods, earthquakes, etc. - discuss similarities and differences in the life of people in different climatic regions of the world, including India - identify different sources of history available in books/local environment e.g., extracts from manuscripts/ maps/ illustrations/ painting/historical monuments/films, biographical dramas, tele-serials, folk dramas and interpret these to understand the time. - familiarise with the emergence of new dynasties and prepare a timeline to trace important developments during this time	The learner — - identifies major layers of the earth's interior, rock types, layers of the atmosphere in a diagram. - locates distribution and extent of different climatic regions on the world map or globe. - explains preventive actions to be undertaken in the event of disasters, e.g., earthquake, floods, droughts. - describes formation of landforms due to various factors. - explains composition and structure of the atmosphere. - describes different components of the environment and the interrelationship between them. - analyses factors contributing to pollution in their surroundings and lists measures to prevent it. - reasons and factors leading to diversity in flora and fauna, e.g., climate, landforms, etc. - reflects on the factors leading to disasters and calamities. - shows sensitivity to the need for conservation of natural resources– air, water, energy, flora and fauna - draws interrelationship between climatic regions and life of people living in different climatic regions of the world, including India - analyses factors that impact development of specific regions - provides examples of sources used to study various periods in history - relates key historical developments during medieval period occurring in one place with another. - explains the relationship between livelihood patterns and the geographical condition of the area inhabited, e.g., tribes, nomadic pastoralists and <i>banjaras</i>. - analyses socio-political and economic changes during medieval period



- enact/dramatise key events of a given historical period/personality like, Razia Sultan, Akbar etc.
- reflect on the changes in society during medieval period and compare it with present day time
- prepare projects: on dynasties/kingdoms/ administrative reforms and architectural specialties of a period, e.g., Khaljis, Mughals etc.
- engage with factors contributing to the emergence of new religious ideas and movements through the use of poems of saints/*bhajans*, *kirtans* or *qawwalis*/ visits to nearby *dargah*/ *gurudwara*/ temple associated with *bhakti* or *sufi* saints and discuss the basic tenets of different religions
- participate in a discussion on the concepts of democracy, equality, State Government, gender, media and advertising
- prepare posters with drawings and pictures on the significance of the Constitution, Preamble, right to equality
- and struggles for equality
- observe assembly constituency map of State/UTs
- organise a mock election and youth assembly
- debate about the role of media
- perform a role play with songs and poems about issues such as equality in democracy, discrimination faced by girls etc.
- express views, through descriptive and critical writing, about standards of living of girls and women in rural and urban areas.
- make oral and written presentations about women who worked for a better society
- prepare newspaper collages about the work being done by the State government on select issues (e.g., health, food, agriculture, roads) and some public works undertaken by the MLA of one's own constituency
- do projects (solo, pair or group) about types of advertisements and create advertisements about the need to save water and energy
- analyses administrative measures and strategies for military control adopted by different kingdoms, e.g., the Khaljis, and Tughluqs, Mughals, etc.
- draws comparisons between policies of different rulers
- describes distinctive developments in style and technology used for construction of temples, tombs and mosques with examples.
- analyses factors which led to the emergence of new religious ideas and movements (*bhakti* and *sufi*)
- draws inferences from poetry of *bhakti* and *sufi* saints about existing social order
- explains the significance of equality in democracy
- distinguishes between political equality, economic equality, and social equality
- interprets social, political and economic issues in one's own region with reference to the right to equality
- differentiates between local government and State government.
- describes the process of election to the legislative assembly
- locates one's own constituency on assembly constituency map of State/UTs and names local MLA
- analyses the causes and consequences of disadvantages faced by women of different sections of the society.
- identifies women achievers in different fields from various regions of India
- illustrates contribution of women to different fields with appropriate examples
- explains the functioning of media with appropriate examples from newspapers.
- creates an advertisement
- differentiates between different kinds of markets
- traces how goods travel through various market places.



- organise awareness drives in one's own locality about sanitation, public health and road safety
- visit any office under the state government / UT Administration (e.g., electricity bill office) in one's own locality to observe its functioning and prepare a brief report
- undertake case studies and projects about local markets and shopping complexes through field visits.

