

STATE COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

VARUN MARG, DEFENCE COLONY, NEW DELHI-II0024

F. No. F 1/JPB/SCERT/17-18/14

Dated 07/04/17

Public Circular

Subject: Suggestions on the draft Learning Outcomes prepared by SCERT Delhi

A committee was set up by the SCERT Delhi to study the draft learning outcomes prepared by NCERT for Elementary classes to suggest an adopted/adapted version for the schools in Delhi. The committee submitted its recommendations for grade wise learning outcomes in five subjects which in its opinion are as per the local needs.

The draft proposed by the SCERT committee is enclosed here. Inputs and/or suggestions are invited from teachers/Principals of Government, Municipal Corporations, NDMC, DCB and private schools and teacher educators of Delhi. The draft of NCERT's Learning Outcomes can be accessed at http://mhrd.gov.in/sites/upload_files/mhrd/files/Learning_outcomes.pdf

The suggestions may be mailed to SCERT at feedback2scert@gmail.com latest by April 14, 2017.

This is issued with the prior approval of the competent authority.


Anita Satia
(Director, SCERT)

Enclosed:

1. Draft Learning Outcomes proposed by the SCERT committee.

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Copy to:

1. PS to Secretary, Education
2. PS to Director, Education
3. PS to SPD SSA
4. Addl. Director (Schools)
5. All RDE's/ DDE's (Districts and Zones)
6. All DIET's
7. OS (IT) to upload on MIS


Seema Singh
OSD, SCERT

Proposed Learning Outcomes for Std 1-8

(Proposed by a committee of SCERT, Delhi)

Apart from the grade-wise learning outcomes proposed for each class and each subject, every HoS shall ensure that ALL CHILDREN enrolled in their school shall attain the following minimum competency within first six month of the academic year 2017-18.

While attainment of grade wise learning outcomes in different subjects is incremental i.e. different children attaining it at different point of time, the minimum outcomes proposed below for primary and upper primary children are absolute. This is the minimum level which should be guaranteed to every child under all circumstances. These are:

Primary- All children between Std 3-5 should be able to:
<ul style="list-style-type: none">• Read 8-10 lines of simple story in Hindi/Urdu with comprehension i.e. being able to explain the main idea in his/her own words.• Read short paragraph of 4-5 lines in English and explain the meaning of key words in it.• Identify and carry out basic operations (addition, subtraction, multiplication and division) involving 3 digits number.
Upper Primary- All children from Std 6 onwards should be able to:
<ul style="list-style-type: none">• Read any text in Hindi/Urdu (short stories or informative text) with comprehension i.e. being able to identify the main idea, key facts and sequences and draw conclusions.• Read short stories (8-10 lines) in English with comprehension i.e. being able to identify main idea, details and sequence and draws conclusion.• Identify and carry out basic operations (addition, subtraction, multiplication and division) involving 4 digits number.

The central idea behind grade wise learning outcomes, building on the basic competency of fluent reading and comprehension, is to develop the ability of the child to understand the concepts, find the connections among the events or facts and draw inferences. Further, he/she should be able to express the understanding in oral and written form with confidence, not just merely recalling the facts but with logically built argument.

This approach should guide the teachers while engaging with their students in teaching learning activities.

Grade wise Learning Outcomes- English

English	
Class	Learning Outcome
1	<ol style="list-style-type: none"> 1. Can respond to the questions asked about them and their family in their home language. 2. Can recite very short poems in chorus with other classmates after teacher. 3. Can identify characters of stories heard with their images. 4. Can mimic sounds of animals and actions and phrases related to the characters of stories heard 5. Can name objects related to everyday life such as some common fruits, vegetables, animals, birds, insects, colours, shapes, kitchen items, etc.
2	<ol style="list-style-type: none"> 1. Can recite short poems with actions. 2. Can respond to comprehension questions related to stories, in one word/phrase, orally in home language or in English. 3. Can identify characters of the stories heard. 4. Can mimic actions and phrases related to the characters of the stories heard. 5. Can express feeling in one word in response to a situation-real or simulated (e.g. happy, sad, angry etc.) 6. Can understand and respond to simple phrases related to greetings. 7. Can use simple words (e.g. big, small, colour) to describe objects. 8. Can understand pronoun words (he/she/me/you) and can use them while speaking, learning to do so indirectly through conversations with teacher rather than knowing that they are leaning pronouns. 9. Can copy words and sentences correctly in notebook with appropriate spacing.
3	<ol style="list-style-type: none"> 1. Can recite simple poems with gestures in English, in chorus with other classmates as well as individually. 2. Can listen and follow simple instructions for routine tasks in school. 3. Can read simple familiar sentences with understanding. 4. Can orally describe everyday objects in very short sentences. 5. Can write two three sentences about objects of everyday life in guided format. 6. Can recall few characters from stories heard and can write the names of the characters with pictures.
4	<p>In addition to class 3:</p> <ol style="list-style-type: none"> 1. Can recite simple poems with expressions and intonation. 2. Can read simple texts of four-five lines with understanding. 3. Can guess meanings of unfamiliar words by reading them in context as well as by using dictionary. 4. Can speak very short and simple phrases related to everyday life of school. 5. Can use punctuation marks like full stop and question mark at appropriate places.
5	<p>In addition to class 3 and 4</p> <ol style="list-style-type: none"> 1. Can speak and write four-five simple sentences about her/his feelings and likes

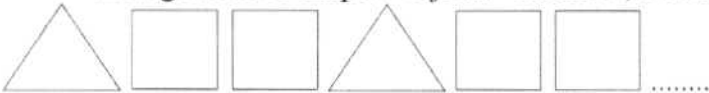
	<p>and dislikes with the help of the teacher.</p> <ol style="list-style-type: none"> Can read simple print in the surroundings (for example, advertisements on hoardings, newspapers, signposts etc.) Can describe pictures in written form in four-five short and simple sentences with the help of given clues and structure.
6	<p>In addition to class 3, 4, and 5</p> <ol style="list-style-type: none"> Can read very short story fluently and can answer in one word or sentence orally and in writing. Can speak and write four to five simple sentences about friends and family in guided format. Can write words/very short sentences as dictated by the teacher. Can draw simple and specific information from a simple text available in surroundings. Can use newly learnt vocabulary while speaking and writing. Can refer to dictionary to find meanings of unfamiliar words.
7	<p>In addition to the previous classes:</p> <ol style="list-style-type: none"> Can participate in small conversations based on familiar context. Can respond to recall and comprehension questions from a short text. Can speak four to five sentences about immediate surroundings with teacher's help. Can write short paragraphs based on context in guided format.
8	<p>In addition to the previous classes:</p> <ol style="list-style-type: none"> Can identify characters, main idea and sequence of events after listening and reading a simple short story of about 100 to 150 words. Can orally describe given picture/ simple topic in four to five sentences. Can write simple letters in guided format.

Learning Outcomes- Hindi

Hindi	
Class	Learning Outcomes
1	<ol style="list-style-type: none"> 1. सुनी कविताओं, घटनाओं इत्यादि पर आपस में चर्चा कर सकते हैं। 2. पढ़ी गई कहानियों/वाक्यों आदि को देखकर उनकी ,शब्दों,कविताओं आदि में अक्षरों , ध्वनियों को सुनकर व समझकर उनकी पहचान करते हैं. 3. चित्र को ध्यान से देखकर उसके बारे में बातचीत करते हैं जैसे चित्र में घट रही घटनाएं वस्तुएं आदि में रुचि, पात्र, गतिविधियाँ,दिखाते हैं और बातचीत करते हैं । 4. स्कूल के बहार और भीतर अपने पसंद की किताबों और अन्य लिखित सामग्री को स्वयं चुनकर पढ़ने की कोशिश करते हैं । 5. सुनी हुई और अपने मन की बातों को अपने तरीके से अभिव्यक्त)चित्र - कीरम/ काटा वर्तनी या स्व-स्व/तंत्र लेखन इत्यादि के माध्यम से(करने का प्रयास करते हैं ।
2	<p>कक्षा 1 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. सुनी गई कविता, कहानी आदि को अपनी भाषा में कहते हैं । 2. हिंदी के वर्णमाला के अक्षरों की आकृति और ध्वनि को पहचानते हैं. 3. पढ़ने के लिए विविध युक्तियों का इस्तेमाल करते हैं जैसे प्रिंट और चित्रों की मदद से अनुमान लगाना पूर्व अनुभवों व जानकारी का इस्तेमाल , शब्दों को पहचानना, । करते हुए अनुमान लगाना 4. अपनी कल्पना से अपने स्तर के अनुसार कविता कहानी आदि कहते हैं और आगे बढ़ाते हैं
3	<p>कक्षा 1&2 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. कही जा रही बातकहानी आदि क, कविता ,ो ध्यान से समझते हुए सुनते हैं और अपनी प्रतिक्रिया व्यक्त करते हैं । 2. लगभग 8-10 वाक्यों की साधारण कहानी अथवा कविता को आसानी से पढ़ सकते हैं. 3. कहानी, कविता आदि को उचित हाव भाव-के साथ सुनते सुनाते हैं 4. अपने आसपास होने वाली घटनाओं और अपने अनुभवों के विषय में बातचीत करते हैं और सवाल पूछते हैं । 5. अलगअलग तरह की रचनाओं में आए नए शब्दों के अर्थ सन्दर्भ के अनुसार समझते - हैंऔर उसे 3-4 वाक्यों में लिखने का प्रयास करते हैं.
4	<p>कक्षा 3 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. पढ़ी, सुनी देखी घटनाओं समाचारों आदि के विषय में सवाल , कविताओं, कहानियों, पूछते औरबातचीत करते हैं, अपनी राय देते हैं व प्रतिक्रिया व्यक्त करते हैं।

	<ol style="list-style-type: none"> 2. लगभग 2-3 वाक्यों के लेखन में संज्ञा ,वचन ,लिंग, विलोम, सर्वनाम, विराम चिह्न । का सचेत इस्तेमाल करते हैं (प्रश्न वाचक/अल्प विराम/पूर्ण विराम) 3. पढ़ने के लिए विविध युक्तियों का इस्तेमाल करते हैं जैसे प्रिंट और चित्रों की मदद से अनुमान लगाना, शब्दों को पहचानना, पूर्व अनुभवों व जानकारी का इस्तेमाल करते हुए अनुमान लगाना ।
5	<p>कक्षा 4 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. अपरिचित शब्दों के अर्थ शब्दकोष में खोजते हैं । 2. लगभग 15-20 वाक्यों की साधारण कहानी अथवा कविता को आसानी से पढ़ सकते हैं एवं उससे सम्बंधित प्रश्नों का उत्तर 1-2 वाक्यों में मौखिक अथवा लिखित रूप में देते हैं.
6	<p>कक्षा 5 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. किसी पाठ्यवस्तु (साधारण कहानी, निबंध अथवा कविता) को सरसरी तौर पर पढ़कर विषयवस्तु का अनुमान लगाते हैं । 2. किसी पाठ्यवस्तु (साधारण कहानी, निबंध अथवा कविता) को पढ़कर उसकी बारीकी से जांच करते हुए विशेष बिंदु को खोजते, अनुमान लगाते व निष्कर्ष निकालते हैं । 3. भाषा की बारीकियों पर ध्यान रखते हुए उनका बोलने और लिखने में इस्तेमाल करते हैं जैसे कविता में लय ,ताल, तुक- वर्ण ,आवृत्ति और कहानी में (छंद) मुहावरे इत्यादि 4. अलग अलग तरह की-साधारण लिखित सामग्री को उपयुक्त हाव,भाव- गति व उतार चढ़ाव के साथ पढ़ते हैं - 5. विभिन्न स्थितियों व लेखन के स्वरूप के अनुसार 8-10 वाक्यों में लिखते हैं जैसे पत्र, कहानी, कविता, सूची, नोटिस इत्यादि । 6. विविध प्रकार की कहानी, कविताओं,समाचारों आदि में आए प्राकृतिक , सामाजिक और अन्य संवेदनशील मुद्दों को समझते हैं और उन पर चर्चा करते हैं ।
7	<p>कक्षा 6 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. पढ़ी गई सामग्री पर बेहतर समझ के लिए स्वयं के प्रश्न बनाते और पूछते हैं. 2. अपने अनुभवों को अपनी भाषा शैली में लिखते हैं.
8	<p>कक्षा 6&7 के सभी Learning outcomes के अतिरिक्त:</p> <ol style="list-style-type: none"> 1. अपनी कल्पना से मौलिक रचना करते हैं जैसे कहानी ,कविता, संस्मरणनिबंध , और पात्र आदिलिखते हैं.

Grade wise Learning Outcome- Maths

Maths	
Class	Learning Outcomes
1	<ol style="list-style-type: none"> Is able to work with numbers 1 to 20 Classifies objects into groups based on some physical attributes like shape, size and other observable properties including rolling and sliding. Recites number names and counts objects up to 20, concretely, pictorially and symbolically. Compares numbers up to 20. For example tells whether number of girls or number of boys is more in the class. Applies addition and subtraction of numbers 1 to 20 in daily life: <ul style="list-style-type: none"> Constructs addition facts up to 10 by using concrete objects. For example to find $3+3$ counts 3 steps forward from 3 onwards and conclude that $3+3=6$. Subtracts numbers using 1 to 10. For example the child takes out 3 objects from a collection of 9 objects and counts the remaining to conclude $9-3=6$ Solves day to day problems related to addition & subtraction of numbers up to 10. Recognizes numbers up to 20 and writes numerals. Describes the physical features of various solids/shapes in her own language. For example- a ball rolls, a box slides etc. Estimates and measures short lengths using non uniform units like a finger, hand span, length of a forearm, footsteps, etc. Observes, extends and creates patterns of shapes and numbers. For example arrangement of shapes/ objects/ numbers, etc. like  <ul style="list-style-type: none"> (i) 1,2,3,4,5,..... 1,3,5,..... 2,4,6,..... 1,2,3,1,2,...., 1,...3,..... Collects, records (using pictures/ numerals) and interprets simple information by looking at visuals. (For example in a picture of a garden the child looks at different flowers and draws inference that flowers of a certain color are more). Develops concept of zero.
2	1. Works with number upto 100. <ul style="list-style-type: none"> Reads and writes numerals for numbers up to 100. Solves simple daily life problems/situations based on addition of two digit numbers. Solves daily life situations based on subtraction of two digit numbers. Represents an amount up to Rs. 100 using 3-4 notes and coins (of same/ different denominations).

	<p>2. Describes basic 3D and 2D shapes with their observable characteristics</p> <ul style="list-style-type: none"> - Identifies basic 3D-shapes such as cuboids, cylinder, cone and sphere by their informal names. - Traces 2D outlines of 3D objects. - Identifies 2D shapes (rectangle, square, triangle, circle) by their names. <p>3. Distinguishes between straight and curved lines.</p> <ul style="list-style-type: none"> • Draws/ represents straight lines in various orientations (vertical, horizontal, slant). <p>4. Estimates and measures length/distances and capacities of containers using uniform non-standard units like a rod/pencil, cup/spoon/bucket etc.</p> <p>5. Compares objects as heavier/lighter than using simple balance.</p> <p>6. Identifies the days of the week and months of the year.</p> <p>7. Sequences the events occurring according to their duration in terms of hours/days, for example does a child remain in school for longer period than at home ?</p> <p>8. Draws inference based on the data collected such as 15 children have 24 teeth and 9 children have 18 teeth.</p> <p>9. Identifies the values of currency notes up to 100/coins and performs addition and subtraction operations.</p>
3	<p>1. Works with three digit numbers:</p> <ul style="list-style-type: none"> - Reads and writes numbers upto 1000. - Compares numbers up to 1000. - Solves simple daily life problems using addition and subtraction of three digit numbers. - Constructs and uses the multiplication facts (tables) of 2, 3, 4, 5 and 10 in daily life situations. - Analyses and applies an appropriate number operation in the situation/ context. - Explains the meaning of division facts by equal grouping/sharing and finds it by repeated subtraction. For example 12,3 as number of groups of 3 to make 12 and finds it as 4 by repeatedly subtracting 3 from 12. - Can split numbers into hundreds, tens and ones. For e.g. 354 is 300 and 50 and 4. - Adds and subtracts small amounts of money with or without regrouping. - Makes rate charts and simple bills. - Can visualise a situation given in a word problem and choose the appropriate operation <p>2. Acquires understanding about 2D shapes</p> <ul style="list-style-type: none"> - Identifies and makes 2D-shapes by paper folding, paper cutting on the dot grid, using straight lines etc. - Describes 2D shapes by the number of sides, corners and diagonals. For example, the shape of the book cover has 4 sides, 4 corners and two fills a given region leaving no gaps using a tile of a given shape. <p>3. Estimates and measures length and distance using standard units like centimetres or metres & identifies relationships.</p> <p>4. Weighs objects using standard units - grams & kilograms using simple balance.</p> <p>5. Compares the capacity of different containers in terms of non standard units.</p>

	<p>6. Adds & subtracts measures involving grams & kilograms in life situations.</p> <p>7. Identifies a particular day and date on a calendar.</p> <p>8. Reads the time correctly to the hour using a clock/watch.</p> <p>9. Extends patterns in simple shapes and numbers.</p> <p>10. Acquires understanding about data handling.</p> <ul style="list-style-type: none"> - Records data using tally marks represents pictorially and draws conclusions.
4	<p>1.Applies operations of numbers in daily life</p> <ul style="list-style-type: none"> - multiplies 2 and 3 digit numbers - Divides a number by another number using different methods like equal grouping, repeated subtraction, by using inter-relationship between division and multiplication. - Creates and solves simple real life situations/ problems including money, length, mass and capacity by using the four operations. <p>2.Works with fractions</p> <ul style="list-style-type: none"> • Identifies half, one-fourth, three-fourths in a given picture (by paper folding) and also in a collection of objects. • Represents the fractions as half, one-fourth and three-fourths by using symbols respectively. <p>3.Acquires understanding about shapes around her/him</p> <ul style="list-style-type: none"> - Identifies the centre, radius and diameter of the circle. - Finds out shapes that can be used for tiling. - Draws cube/ cuboids using the given nets. - Shows through paper folding/ paper cutting, ink blots, etc. the concept of symmetry by reflection. - Draws top view, front view and side view of simple objects. - Explores the area and perimeter of simple geometrical shapes (triangle, rectangle, square) in terms of given shape as a unit like the number of books that can completely fill the top of a table. <p>4. Converts metre into centimetre and vice-versa.</p> <p>5. Estimates the length of an object/distance between two locations, weight of various objects, volume of liquid, etc., and verifies them by actual measurement.</p> <p>6. Solves problem involving daily life situations related to length, distance, weight, volume and time involving four basic arithmetic operations.</p> <p>7. Reads clock time in hour and minutes and expresses the time in a.m. and p.m.</p> <ul style="list-style-type: none"> • Relates 24 hr clock with respect to 12 hr clock. • Calculates time intervals/ duration of familiar daily life events by using forward or backward counting/ addition and subtraction. <p>8. Identifies the pattern in multiplication and division (up to multiple of 10).</p> <p>9. Observes, identifies and extends geometrical patterns based on symmetry.</p> <p>10. Represents the collected information in tables and bar graphs and draws inferences from these.</p>
5	<p>1.Works with large numbers</p> <ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> 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). <p>2.Acquires understanding about fractions</p> <ul style="list-style-type: none"> Finds the number corresponding to part of a collection. Identifies and forms equivalent fractions of a given fraction. <p>3.Explores idea of angles and shapes</p> <ul style="list-style-type: none"> 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. <p>4. Applies the four fundamental arithmetic operations in solving problems involving money, length, mass, capacity and time intervals.</p> <p>5. Identifies the pattern in triangular number and square number.</p> <p>6. Collects data related to various daily life situations, represents it in tabular form and as bar graphs and interprets it.</p>
6	<ol style="list-style-type: none"> Solves problems involving numbers upto 5 digits by applying appropriate operations (addition, subtraction, multiplication and division). Classifies the numbers as even, odd, prime and composite. Applies Highest Common Factor /Lowest Common Multiple in real life situations. Solves problem involving addition and subtraction of integers Solves simple problems on daily life situations involving addition and subtraction of fractions / decimals. Compares quantities using ratios in different situations. For example the ratio of girls to boys in a particular class in 3:2. Describes geometrical ideas like line, line segment, open and closed figures, angle, triangle, quadrilateral, circle, etc. with the help of examples in surroundings and paper folding. Demonstrates an understanding of angles by: <ul style="list-style-type: none"> Identifying examples of angles in the surroundings. Classifying angles according to their measure. Estimating the measure of angles using 45°, 90°, and 180° as reference angles. Demonstrates an understanding of line symmetry by identifying symmetrical 2-Dimensional (2-D) shapes which are symmetrical along one or more lines and creating symmetrical 2-D shapes.

	<ol style="list-style-type: none"> Identifies triangle and its parts. Explores different sizes of triangles and infers that there are different types of triangles Differentiates between a rectangle and a square Identifies various (3-D) objects like sphere, cube, cuboids, cylinder, cone from the surroundings with the help of examples from surroundings. Describes and provides examples of edges, vertices and faces of 3-D objects. Finds out the perimeter and area of rectangular objects in the surroundings like floor of the class room, surfaces of a chalk box etc. Organizes given/collected information such as expenditure on different items in a family in the last six months, in the form of table, pictograph and bar graph and interprets them.
7	<ol style="list-style-type: none"> Solves problem involving additions and subtraction of integers and daily life situations involving addition and subtraction of fractions/decimals. 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 \div is interpreted as how many $\frac{1}{4}$ make $\frac{1}{2}$? Uses algorithms to multiply and divide fractions/decimals. Solves simple problems related to daily life situations involving fractions/decimals. Represents daily life situations in the form of a simple equation and solves it. Uses variable with different operations to generalise a given situation. For example, adds/subtracts algebraic expressions, distinguishes quantities that are in proportion. For example, tells that 15, 45 and 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, Finds value of the one when the other is given. Finds unknown angle of a triangle when its two angles are known. Using ruler and a pair of compasses constructs a line parallel to a given line from a point outside it and triangles. 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 Interprets data using bar graph such as consumption of electricity is more in winters than summer, runs scored by a team in first 10 over etc.
8	<ol style="list-style-type: none"> Generalises properties of addition, subtraction, multiplication and division of rational numbers through patterns. Finds out as many rational numbers as possible between two given rational numbers. Is able to use divisibility rules of 2, 3,4, 5, 6, 9 and 11. Finds squares, cubes and square roots and cube roots of numbers using different methods. Solves problems with integral exponents.

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| | <ol style="list-style-type: none"> 6. Solves simple daily life problems using variables. 7. Multiplies algebraic expressions e.g. expands $(2x-5)(3x+7)$. 8. Uses various algebraic identities in solving problems. 9. Applies the concept of percent in profit and loss situation in finding discount, VAT and compound interest. e.g. calculates discount per cent when marked price and actual discount are given or finds profit per cent when cost price and profit in a transaction are given. 10. Solves problems based on direct and inverse proportions. 11. Solves problems related to angles of a quadrilateral using angle sum property. 12. Verifies properties of parallelograms and establishes the relationship between them through reasoning. 13. Represents 3D shapes on a plane surface such as sheet of paper, black board etc. 14. Verifies Euler's relation through pattern. 15. Constructs different quadrilaterals using compasses and straight edge scale. 16. Estimates the area of shapes like trapezium and other polygons by using square grid/graph sheet and verifies using formulas. 17. Finds the area of a polygon. 18. Finds surface area of cuboidal and cylindrical object. 19. Draws and interprets bar charts and pie charts. 20. Makes hypotheses on chances of future events on the basis of its earlier occurrences or available data like after repeated throws of dice and coins. |
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Learning Outcomes- EVS and Science

Environmental Science- Std 3 to 5	
Class	Learning Outcomes
3	<ol style="list-style-type: none"> 1. Identifies simple observable features (<i>e.g. shape, colour, texture, aroma</i>) of leaves, trunk and bark of plants in immediate surroundings. 2. Identifies simple features (<i>e.g. movement, at places found/kept, eating habits, sounds</i>) of animals and birds in the immediate surroundings. 3. Identifies relationships with and among family members. 4. Identifies objects, signs (means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do) at home/school/ neighborhood. 5. Describes in his/her own words need of food for people of different age groups, animals/birds, availability of food and water. 6. Describes in his/her own words roles of family members and need for living together through oral/written/other ways. 7. Groups objects, birds, animals, features, activities according to differences/similarities using different senses. (<i>e.g. appearance/place of living/ Food/ movement/ likes-dislikes/ any other features.</i>) 8. Differentiates between objects and activities of present and past (<i>e.g. clothes /vessels /games played/ work done by people</i>). 9. Identifies directions, location of objects/places in simple maps (of home/ classroom/ school) using signs/symbols/verbally. 10. Estimates quantities of materials/activities in daily life and verifies using symbols/non-standard units (hand spans, spoon/mugs, etc.). 11. Records observations, experiences, information on objects/activities/places visited in different ways. 12. Creates drawings, designs, motifs, models, top, front, side views of objects, simple maps (of classroom, sections of home/school, etc.) and slogans, poems, etc. 13. Observes rules in games (local, indoor, outdoor) and other collective tasks. 14. Shows awareness of good/bad touch, stereotypes for tasks/play/food in family w.r.t gender, misuse/wastage of food and water in family and school. 15. Shows sensitivity for plants, animals, the elderly, differently abled and diverse family set ups in surroundings.
4	<ol style="list-style-type: none"> 1. Identifies simple features (<i>e.g. shape, colour, aroma, where they grow/any other</i>) of flowers, roots and fruits in immediate surroundings. 2. Identifies different features (beaks/teeth, claws, ears, hair, nests/shelters, etc.) of birds and animals. 3. Identifies relationship with and among family members in extended family. 4. Explains the herd/group behaviour in animals (ants, bees, elephants), birds (building nests), changes in family (<i>e.g. due to birth, marriage, transfer, etc.</i>). 5. Describes in her own words different skilled work (<i>farming, construction, art/craft, etc.</i>), their inheritance (from elders) and training in daily life. 6. Explains the process of producing and procuring daily needs (<i>e.g. food, water, clothes</i>) i.e. from source to home. (<i>e.g. crops from field to mandi and</i>

	<p>to home, water from local source and ways of its purification at home/ neighbourhood).</p> <ol style="list-style-type: none"> Differentiates between objects and activities of past and present. (E.g. transport, currency, houses, materials, tools, skills - farming, construction, etc.) Groups the animals, birds, plants, objects, waste material for observable features. (E.g. on appearance (ears, hair, beaks, teeth, texture of skin/surface), instincts (domestic/wild), uses (edibility, medicinal, decoration, any other, reuse), traits (smell-taste/, likes, etc.) Guesses (properties, conditions of phenomena), estimates spatial quantities (distance, weight, time, duration) in standard/local units (kilo, gaj, pav etc.) and verifies using simple tools/set ups to establish relation between cause and effect. Records her observations/experiences/information for objects, activities, phenomena, places visited (<i>Mela, festival, historical place</i>) in different ways and predicts patterns in activities/phenomena. Identifies signs, location of objects/places and guides for the directions w.r.t a landmark in school/neighbourhood using maps etc. Uses the information on signboards, posters, currency (notes/coins), railway ticket/time table. Creates collage, designs, models, rangolis, posters, albums, and simple maps (of school/neighbourhood etc.) using local/waste material. Shows awareness of stereotypes and discrimination based on gender and caste in family/school/ neighborhood. Shows awareness of child rights (schooling, child abuse, punishment and forced labour.) Suggests ways for hygiene, reduce, reuse, recycle and takes care of different living beings (plants, animals, and the elderly, differently abled people), resources (food, water, and public property).
5	<ol style="list-style-type: none"> Explain 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 i.e. grains to Roti, preservation techniques, storage tracking of water source) Describes the interdependence among animals, plants and humans e.g. <i>communities earning livelihood from animals, dispersal of seeds etc.</i> Explains the role and functions of different institutions in daily life e.g. Bank, municipality, police station, etc. Establishes linkages among terrain, climate, resources (food, water, shelter, livelihood) and cultural life. (<i>E.g. life in distant/difficult areas like hot/cold deserts</i>). Groups objects, materials, activities for features/properties such as shape, taste, colour, texture, sound, traits etc. Records observations/experiences/information in an organised manner (e.g. in tables/ sketches/ bar graphs/ pie charts) and predicts patterns in activities/phenomena (<i>e.g. floating, sinking, mixing, evaporation, germination, spoilage</i>) 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 w.r.t. positions at different places for a location.

	<p>9. Creates posters, designs, models, set ups, local dishes, sketches, maps (of neighbourhood/ different places visited) using variety of local/waste material and writes poems/ slogans/travelogue etc.</p> <p>10. Suggests ways for hygiene, health, managing waste, disaster/emergency situations and protecting/saving resources (land, fuels, forests, etc.).</p>
Science- Std 6 to 8	
6	<ol style="list-style-type: none"> 1. Identifies materials and organisms, such as, plant fibres, flowers, on the basis of observable features i.e. appearance, texture, function, aroma, etc. 2. Differentiates and explains in his/her own words materials and organisms, such as, fibre and yarn; tap and fibrous roots; electrical conductors and insulators; on the basis of their properties, structure and functions. 3. Classifies (with examples from surrounding) materials, organisms and processes based on observable properties, e.g., materials as soluble, insoluble, transparent, translucent and opaque; changes as can be reversed and cannot be reversed; plants as herbs, shrubs, trees, creeper, climbers; components of habitat as biotic and abiotic; motion as rectilinear, circular, periodic. 4. Conducts simple investigations to seek answers to queries, e.g., What are the food nutrients present in animal fodder? Can all physical changes be reversed? Does a freely suspended magnet align in a particular direction? 5. Relates processes and phenomenon with causes, e.g., deficiency diseases with diet; adaptations of animals and plants with their habitats; quality of air with pollutants, etc. 6. Explains processes and phenomenon, e.g., processing of plant fibres; movements in plants and animals; formation of shadows; reflection of light from plane mirror; variations in composition of air; preparation of vermicompost, etc. 7. Measures physical quantities and expresses with example in SI units, e.g., length. 8. Draws and explains labeled diagrams / flow charts of organisms and processes, e.g., parts of flowers; joints; filtration; water cycle, etc. 9. Constructs models using materials from surroundings and explains their working along with the application of scientific principles, e.g., pinhole camera, periscope, electric torch, etc. 10. Applies learning of scientific concepts in day-to-day life, e.g., selecting food items for a balanced diet; separating materials; selecting season appropriate fabrics; using compass needle for finding directions; suggesting ways to cope with heavy rain/ drought, etc. 11. Shows awareness towards protecting environment, e.g., minimizing wastage of food, water, electricity and generation of waste; spreading awareness to adopt rain water harvesting; care for plants, etc.
7	<ol style="list-style-type: none"> 1. Identifies materials and organisms, such as, animal fibres; types of teeth; mirrors & lenses, on the basis of observable features, i.e., appearance, texture, functions, etc. 2. 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,

	<p>etc., on the basis of their properties, structure and function.</p> <ol style="list-style-type: none"> 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 colored 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 in his/her own words the 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. Measures and calculates e.g temperature; pulse rate; speed of moving objects; time period of a simple pendulum, etc. Explains the scientific principles through self drawn 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. 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. Shows awareness to protect environment, e.g., following good practices for sanitation at public places; minimizing generation of pollutants; planting trees to avoid soil erosion; sensitizing others with the consequences of excessive consumption of natural resources, etc.
8	<ol style="list-style-type: none"> Differentiates materials and organisms, such as, natural and human made fibres; contact and non-contact forces; liquids as electrical conductors and insulators; plant and animal cells; viviparous and oviparous animals, on the basis of their properties, structure and functions. Classifies materials and organisms based on properties/ characteristics, e.g., metals and non metals; <i>kharif</i> and <i>rabi</i> crops; useful and harmful microorganisms; sexual and asexual reproduction; celestial objects; exhaustible and inexhaustible natural resources, etc. Conducts simple investigations to seek answers to queries, e.g, What are the conditions required for combustion? Why do we add salt and sugar in pickles and <i>murabbas</i>? Do liquids exert equal pressure at the same depth? Whether angle of incidence is equal to angle of reflection? Relates processes and phenomenon with causes, e.g., smog formation with the presence of pollutants in air; deterioration of monuments with acid rain, etc. Explains processes and phenomenon, e.g., reproduction in human and animals; production and propagation of sound; chemical effects of electric current; formation of multiple images; structure of flame, etc. Prepares slides of microorganisms; onion peel, human cheek cells, etc., and describes their microscopic features.

	<ol style="list-style-type: none"> 7. Explains with the help of self drawn labelled diagram/ flow charts, e.g., structure of cell, eye, human reproductive organs; experimental set ups, etc. 8. Constructs models using materials from surroundings and explains their working, e.g. <i>ektara</i>, electroscope, fire extinguisher, etc. 9. Applies learning of scientific concepts in day-to-day life, e.g., purifying water; segregating biodegradable and non-biodegradable wastes; increasing crop production; using appropriate metals and non-metals for various purposes; increasing/ reducing friction; challenging myths and taboos regarding adolescence, etc. 10. Shows awareness to protect environment, e.g., using resources judiciously; making controlled use of fertilisers and pesticides; suggesting ways to cope with environmental hazards, etc.
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Learning Outcomes- Social Science

Social Science	
Class	Learning Outcomes
6	<p>Geography :</p> <ol style="list-style-type: none"> 1. Understands the concept of solar system, distinguishes between stars, planets and satellites. 2. Recognizes that earth is a unique celestial body due to existence of life, with special reference to biosphere. 3. Develops an understanding of how day and night occur and seasons change by becoming well versed with the concept of rotation and revolution. 4. Is able to use maps and various components associated such as, symbols to locate directions, and places on map. 5. Identifies latitudes and longitudes and how it is used in locating place and time settings. 6. Understands the process of formation of different land forms such as mountains, plateaus and plains can locate these on the map of India. <p>History:</p> <ol style="list-style-type: none"> 1. Understands and appreciates why we need to study about our pasts which have shaped our present. 2. Comprehends how historians come to know about the pasts through various sources and anything that survive from earlier times. Identifies the different types of sources (archeological, literary and others) and their utility in understanding history of a period. 3. Can build upon how important developments such as discovery of fire, cultivation of crops, tools, wheel and pottery shaped history or influenced human life. 4. Is able to trace and explain the gradual journey of man from hunter gatherer and wanderer to settled cultivator. 5. Appreciates the distinctive features of urban civilization beginning with earliest cities on Indus and can draw parallels with cities of today. 6. Understands the context and process of rise of new kingdoms starting from early republics to the more powerful ones like Mauryas and Guptas in the North and Pallavas and Cholas in South. 7. Becomes familiar with the developments in lives and activities of ordinary people in towns and villages- about hunters and peasants, crafts people and traders, saints and pilgrims. Gains a sense that history is not only about political events but everything that happens in a society. 8. Understands the context of why new ideas and religion developed during this period and can analyse the basic values and ideas associated with them. 9. Is able to locate and plot earliest Indus Cities and other important cities and kingdoms on an outline map of India. <p>Social and Political Life</p> <ol style="list-style-type: none"> 1. Understands the importance of diversity in society, and how discriminatory experiences exist in our society.

	<ol style="list-style-type: none"> 2. Is Able to appreciate how despite diversity a nation stands united. 3. Understands the concept of equality of status and opportunity and can give examples from day to day life. 4. Familiarizess himself about the types of government, their functions and how while working they complement each other. 5. Apply the meaning of democracy in context of their family, society and State. 6. Observes and is able to describe various forms of occupation in his society and distinguish between different occupations, villages and cities and why they so exist.
7	<p>Geography:</p> <ol style="list-style-type: none"> 1. Recognizes and understands the composition of major layers of the interior of the earth, various types of rocks, minerals, their composition and uses. 2. Observe Pattern of distribution and geographical extent of different climatic regions on the world map and globe. 3. Understands the phenomenon and causes of various natural disasters such as earthquake, flood and draughts. Can suggest preventive and remedial actions during such disasters. 4. Describes different components of the environment and the interrelationship among them. 5. Develops awareness about various factors contributing to pollution in surroundings and lists measurers to prevent it. 6. Reflect on the factors leading to disasters and calamities. 7. Shows sensitivity to the need for conservation of natural resources like air, water, energy, etc. 8. Draws inter relationship between climatic regions and life of the people in different regions. 9. Analyses factors that impact development in specific regions. <p>History:</p> <ol style="list-style-type: none"> 1. Appreciates the growing importance of textual records in examining the history of the period in addition to manuscripts, inscriptions and archeological evidence. 2. Traces the key developments in North and South India from 7th to 12th Centuries and 12th to 16th century and can explain the similarities and differences among them. 3. Is able to explain the salient features and implications of the administrative, economic and military reforms under Khaljis, Tughlaqs and Mughals. 4. Is able to explain Akbar's unique religious and revenue policy in social, political, economic context of the time. 5. Understands the background of development of towns as administrative, religious and commercial centres. Discovers what was happening in the towns- about new arts, crafts, production activities and flourishing urban culture. 6. Is able to derive interconnection between the diverse livelihoods taken up by various tribes and geography of the area inhabited. Comprehends how interaction between Varna based society and tribal people caused both kinds of societies to adapt and change. 7. Enquires into and analyses the factors that led to the emergence of new

	<p>religious ideas and movements (Bhakti and Sufi).</p> <ol style="list-style-type: none"> 8. Draws inferences from poetry of Bhakti and Sufi saints about the existing social order. Understands how using simple logical arguments they criticised and challenged the rituals and other aspects of conventional religious and social order. 9. Discovers how new languages (regional) were used to compose poems, songs and other literary works. 10. Develops an understanding of the reasons for the decline and disintegration of Mughal empire and rise of new political groups such as Jats, Marathas, Sikhs and Rajputs to power during first half of 18th century. <p>Social and Political Life:</p> <ol style="list-style-type: none"> 1. Understands issues related to equality and can examine existence of equality (social political and economic) with examples. 2. Questions and examines preconceived notions and ideas regarding institutions and processes. 3. Is able to appreciate the role of government in providing basic services like health and education. Can compare availability of the same in his own locality and other localities. 4. Is able to understand the difference between the process and mechanism of Parliamentary and State elections. 5. Differentiate between assembly and parliamentary constituencies. 6. Appreciates the contribution of women in different fields with appropriate examples. 7. Appreciates the value of domestic work which often remains unaccounted for and unacknowledged. 8. Recognize various forms of advertisement and means of communication in their surroundings and how it influences people. 9. Explains why government needs to regulate economic activities. 10. Can understand the market process (with some examples) starting from manufacturing to distribution.
8	<p>Geography:</p> <ol style="list-style-type: none"> 1. Understands different types of resources and their utility. 2. Familiarizes with different types of industries, their classification on the basis of raw material, size ownership and so on. Examines the factors affecting their location. 3. Understands the factors affecting use of land. Shows sensitivity towards environmental issues such as degradation of soil and deforestation. 4. Interprets the world map for uneven distribution of population. 5. Analysis causes of fire, landslide and industrial disasters and suggests measures for risk reduction. 6. Analyses reasons of uneven distribution of natural and human resources on earth. 7. Is able to justify and advocates for judicious use of natural resources such as water, soil, forest and so on for sustainable development. 8. Analyses the factors due to which some countries rank as leading producers of major crops such as wheat, rice, cotton, jute etc. And is able to locate these countries on the world map.

9. Draws relationship between type of farming and how they impact development in different regions of the world.
10. Is able to use maps for plotting the distribution of population, concentration of industries and so on.

History:

1. Is able to trace the journey of British East India Company's expansion from a small trading company to the most dominant power in India and the consequences of the same.
2. Explain how company's policies were reshaping the new order in countryside and its reactions in form of indigo rebellion and other revolts.
3. Can explain the causes of popular tribal revolts such as Santhal rebellion.
4. Digs deeper into/examines the origin, nature and spread of the Revolt of 1857 and the lessons learned from it. Is able to appreciate how a new phase of history began after 1857.
5. Explains the reasons of the decline of some cities and emergence of some other cities in later 19th and early 20th century.
6. Explains the changes introduced in the education system by the British and reaction on the Indians.
7. Explains why British adopted cautious policy towards social reforms while highlighting some of the laws enacted during that period.
8. Is able to outline the course of national movement from 1870s till independence not only chronologically but establishing connections and cause and effect between the events and processes involved.
9. Analyses the significant developments in the process of nation building. Becomes familiar with the problems and challenges posed before a newly independent India.

Social and Political Life

1. Appreciates the values enshrined in the Indian Constitution such as fundamental rights, secularism etc.
2. Appreciate that no one should be discriminated against on grounds of their religious practices and beliefs.
3. Applies the knowledge of the fundamental rights to find out about their violation, protection and promotion in a given situation (e.g. child rights).
4. Is able to compare the functions of State and Union government.
5. Is able to explain the key functions of MP and MLA.
6. Is familiar with the functions of legislature, how it works and the process of law making.
7. Is able to understand the importance of judiciary and its role in resolving the disputes at different level.
8. Develops awareness about one's own judicial rights (e.g. FIR etc.)
9. Is able to explain the causes and types of marginalization and their different forms existing in our society with examples from immediate surroundings.
10. Identifies the role of government in providing essential public facilities such as water, road and sanitation etc. and its role in ensuring protection of the environment with examples.