

Curricular Expectations and Learning Indicators in Environmental Studies (EVS) at the Primary Stage

I - How do children learn EVS?

We all are concerned that every school needs to provide opportunities where each child learns and happily engages in school level activities. This requires that the teaching-learning processes in each classroom must address the needs of all children- *cognitive/ age-appropriate curriculum, conducive and non threatening classroom environment, encouraging school based assessment and reporting practices in the school*. If children find such learning environment they would be able to achieve more successfully. Thus there is a need to visualize their learning processes holistically rather than viewing child's progress in isolation. We all realize that children learn EVS when they are exposed to the real situations in their surroundings that help them construct, be aware, appreciate and get sensitized towards the environmental issues(natural, social and cultural) prevailing around. The learning process begins with the child's immediate environment i.e. self and family in the early classes and moving on further to the wider environment beyond neighbourhood and community at large. NCF-2005 recommends to follow an integrated and thematic approach- towards its teaching-learning at the primary stage. Thematic approach needs to be followed in EVS in early classes and gradually making efforts to make them understand the issues and concerns related to natural and social environment in class V and onwards. Efforts need to be made to avoid giving direct information, definitions and descriptions as children construct their own knowledge using varied teaching and assessment strategies. However, this requires ensuring their active engagement participation in learning by exposing them to diverse experiences through a variety of sources within and outside the classrooms. According to their varied potential we all agree that assessment is carried out simultaneously i.e. during teaching learning and in natural setting. It allows us to identify the learning gaps and modify teaching-learning processes to suit the needs of all children. This would also help to provide timely feedback to the children to improve her/his future learning. The learning situations need to include a variety where children get the opportunities ensuring each child's(including the differently abled and the disadvantaged children) participation to observe, express, discuss, question, critically think, improvise, analyze- etc.

While organizing the Teaching-Learning of EVS, the following pedagogical principles need to be kept in view:

- Each child is unique and has strengths and weaknesses. Children learn and progress at different pace and style. Some children learn best visually, some by questioning, some others by describing and observing, accordingly opportunities need to be given to get exposed to various situations.
- Active participation of children is crucial in constructing knowledge, using environment as a *learning resource* that would provide meaningful learning as it would relate the *child's local knowledge with the school knowledge*.
- Classroom processes need to encourage to tap various sources other than the textbook. A teacher needs to encourage learning beyond four walls of the classroom and provide wider perspective of the environment around her/him.
- **Visuals play a major role in EVS learning.** Reading of visuals not only provides joy and ethos of writing material that develops critical thinking and analyzing skills but also supplement the text to reduce the content load. Picture reading activities in group with peers improves social interaction and provides more opportunities for construction of knowledge. *Care needs to be taken to adopt these visuals for children with visual difficulties.*
- EVS learning must find suitable ways to sensitize the children to the wide differences that exist within our society relating to gender discrimination, children with marginalized groups, and differently abled children, the elderly and the sick.
- Children enjoy and learn more with hands-on activities i.e. creating materials with locally available material , draw picture of their choice, art/ craft activities. Children are very happy and respond with enthusiasm when their creative ventures are appreciated rather than being rejected or left unnoticed, as unimportant by elders.
- Each child has an innate capacity to learn about things owing to the experiences and the information available to him/her. The child constructs new meanings based on previous knowledge and builds upon his/ her understanding. *Also, all the children do not learn in a uniform manner. However, children's unique ways of thinking and learning can become an opportunity as a learning resource in a classroom.* Different children's experiences can serve as the beginning to explore multiple facets of ideas in the lesson. *Sharing ideas and insights amongst peers provide for rich 'scaffolding' opportunities, rather than arrive at a 'right' answer.*
- **Difference of opinions and varied perspectives enrich the learning process and add quality to what is learnt.** Since learning and understanding do not take place in a linear way children's distant memories and past experiences also add to the process of making sense of things. To facilitate a more meaningful learning, it is essential that teachers/elders encourage the children to make critical analysis of their prior work/knowledge and then move on to the new concepts to be learnt.

2 - What do we expect from EVS classrooms?

- Recognizing the mandate of the RTE Act, 2009 the overall development of a child, i.e., physical, socio-emotional, besides the cognitive needs to be focused on. All these aspects/dimensions can only *be nurtured through a whole range of learning experiences that a child participates in and beyond school*. To assess all these aspects, a comprehensive picture of a child's personality needs to be constructed which requires information about child's knowledge, comprehension, skills, values, interests, attitude and motivation in response to various learning situations and opportunities both in and out of the school. We all want children to learn EVS by developing those abilities/skills, and dispositions. *A wide range of suggestive indicators for learning has been drawn up so that teachers can plan learning tasks/activities to fully cover this range*. These would aim to achieve curricular expectation/learning outcomes at the end of particular periods or stages. The learning indicators have been identified for Classes III, IV and V. **Learning Indicators in EVS are process-oriented**. In class III, EVS curriculum expects learning from the immediate surroundings while in class V, curricular expectation need to provide learning related to natural and social environment so that by the time the child enters in class V, she/he would not find any learning gap in the curriculum transaction of Social Sciences and Science in class VI. The learning outcomes would be achieved through the sound and effective pedagogical processes. Initial attempts of children are stepping stones to learning as they provide a reference point and impetus to explore another way. In a supportive and stress free classroom, mistakes are used as opportunities. In EVS learning, the children's response would not be analyzed in right/wrong manner; rather it would provide and promote to put her/his own point of view Children make efforts to analyze 'why' or 'how' they may make mistakes and use their own abilities to correct them. Helping the all children including those with special needs. Aim higher, accepting them for what they are and creatively 'scaffolding' their learning; all needs to be well enmeshed together. Process indicators of EVS learning for primary stage are given below:

3 – What are the curricular expectation/ Learning outcomes of EVS Learning?

CLASS III	CLASS V
<p>1. Awareness about immediate surroundings from lived experiences from various themes related to daily life such as Family, Friends, Plants, Animals, Food, Water, Shelter, Travel etc. (<i>Learning about the environment</i>).</p> <p>2. Develop various processes/skills through the interaction with immediate surroundings (<i>learning through the environment</i>)</p> <p>3. Value the immediate resources such as water, food, paper, fuel use at house and use them according to the need</p> <p>4. Enhance/Promote curiosity and creativity in relation to the immediate surroundings</p> <p>5. Learn to appreciate the diversity(language, family, food & habits, family types, variations in plants, animals culture etc.) in the immediate surroundings.</p> <p>6. Attempt to develop sensitivity towards elderly/old, differently abled, and disadvantaged groups of the society with a focus on their strengths as well as areas of concern.</p>	<p>1. Awareness about natural and social environment from lived experiences from various themes (<i>Learning about the environment</i>).</p> <p>2. Understand the relationships between natural and social environment through various activities within and beyond classroom.</p> <p>3. Develop various processes/skills through the interaction with the natural and social environment (<i>learning through the environment</i>).</p> <p>4. Understand the need to conserve and protect the natural resources such as fuel, food, water, electricity at home and in the community and social environment (<i>Learning for the environment</i>).</p> <p>5. Develop curiosity and creativity about social (migrations of the families, various local traditional art forms, community eating, marriage celebrations etc.) and scientific phenomena (seed germination, breathing process spoilage and preservation of food) in the environment.</p> <p>6. Appreciate the variations (diversity) in natural (Plants in different countries) and social environment (tribal life in various places, community eating etc.) and respect them.</p> <p>7. Develop and reflects sensitivity towards old, differently challenged, gender and disadvantaged group of the society</p> <p>8. Awareness and sensitivity towards rights of self. i.e <i>Right to education, right to food, dignity of labour, etc.</i></p>

4 - What are the learning indicators of EVS Learning?

Broadly, the EVS learning is around ten processes as mentioned below. Thus the nature of learning indicators in EVS is process based. For classes III- V these learning indicators are same, however, the progression of learning from classes III- V can be seen through the complexity in the indicator. In order to understand the nature of complexity class III to IV, IV to V, suggestive examples have been given along with each indicator.

1. *Observation and Reporting* ó Explores shares, narrates and draws, picture-reading, makes pictures, collects and records information, tables and maps.
2. *Discussion* ó Listens, talks, expresses opinions, finds out.
3. *Expression* ó Expresses through gestures/ body movements, expresses verbally, expresses through drawing/writing/sculpting, expresses through creative writing.
4. *Explanation* ó Reasoning, makes logical connections, describes events/situation, formulates one's own reasoning, make simple gestures, thinks critically, and makes logical connections.
5. *Classification* ó Identifies objects based on observable features, identifies similarities and differences in objects, sorts/groups objects based on observable features. Compares objects and classifies them based on physical features.
6. *Questioning* ó Expresses curiosity, asks questions, raises critical questions, frame questions.
7. *Analysis* ó defines situation/ event, identifies/predicts possible causes of any event/situation, making hypotheses and inferences
8. *Experimentation* ó Improvises makes simple things and perform simple experiments.
9. *Concern for Justice and Equality* ó Sensitivity towards the disadvantaged or differently abled, shows concern for environment
10. *Cooperation* ó Takes responsibilities and takes initiatives, shares and works together with empathy.

5 - Learning Indicators in EVS for Primary Level (Classes III, IV, V)

Pedagogical Processes	Learning Indicators Class III	Learning Indicators Class IV	Learning Indicators Class V
<p>Observation and reporting:</p> <ul style="list-style-type: none"> • Providing opportunities to expose children to the immediate surroundings (<i>animals, plants, seasons, shelters, food, water, local transport</i>) and in class V gradually to natural and social environment. • Providing opportunities with due consideration for children with visual difficulties for <ul style="list-style-type: none"> – Exploring the immediate surroundings and sharing experiences with others. – Collecting and recording the information. – <i>Visiting different places.</i> • Opportunities need to be given to share experiences based on their observations. <ul style="list-style-type: none"> - Equal opportunities to all children without any discrimination - Feedback and scaffolding for further improvement - Engaging children in small group for mutual learning. 	<p>Observation and reporting:</p> <ul style="list-style-type: none"> • Observes and explores environmental objects/plants/animals/local transports in the immediate surroundings. <i>E.g., “identifies names of objects, local plants, animals, transport, and shelters, etc in their own language.”</i> • Shares and reports her observations on the collected information/objects/visited place through various ways. <i>E.g., “shares brief details of plants (part), animals, food item eaten in the family, local games, local transport, nearby park, garden/field, post office, market in their own language orally”.</i> 	<p>Observation and reporting:</p> <ul style="list-style-type: none"> • Observes and explores environmental objects, plants, animals, shelters simple phenomenon in the surroundings. <i>For e.g., “identifies variations in plants (leaves, flowers), animals (bird’s beak, claws, feather, and nests) mode of transports, and variation in seasons, give examples of each”.</i> • Collects and reports her observations on the collected materials/ information through various ways : <ul style="list-style-type: none"> <i>E.g., “reports information about variety of leaves, flowers, various modes of transport and report with peers/elders through orally as well as written form, drawings”.</i> • <i>Shares and reports variations in seasons, day night variations orally as well as in written form.</i> 	<p>Observation and Reporting:</p> <ul style="list-style-type: none"> • Observes and explores the natural and social environment, gradually moving from immediate to the wider environment. <ul style="list-style-type: none"> - <i>E.g., “identifies objects, events phenomenon in natural & social environment,</i> - <i>locate states on the map”.</i> • Collects and records the details of observed objects/phenomenon/ events of natural and social environment in an organized manner. <i>E.g., “while observing the sprouting of seeds(whole grain i.e. moong, chana), discussing ways how to collect and record the observation of each day(tabular form/draw)/ write”.</i>

<ul style="list-style-type: none"> • Providing opportunities for integrating art activities with EVS learning such as using material for art work & discuss in the class about the details of the dising/drawings. - Materials for hand on activities need to be provided. - Encouraging children about their creations <ul style="list-style-type: none"> • Providing opportunities to reflect on the work done by self, peer group through verbal and non verbal ways . 	<ul style="list-style-type: none"> • Draws simple designs/ drawings/ patterns that have been seen on different objects at home/school with the support of elders E.g., òdraw floral designs, pattern of leaves/circle/square/triangles and colour them.ö <ul style="list-style-type: none"> • Appreciates and reflects on her observations, work done by self and others. E.g., òReading and enjoying signboards, pictures, posters in the locality, school (shops name, posters name, posters related to prevention of disease notice board etc) and reflects on them verbally or through gesturesö. 	<ul style="list-style-type: none"> • Draws simple designs, drawings patterns that have been seen by her or on her own E.g., “thumb or creative printing from various materials, rangolis using various patterns of her choice”. And label them <ul style="list-style-type: none"> • Appreciates and reflects on the work done by others and self E.g., òreflecting on work i.e. drawings/ creative work done by peer group/ self, enjoying reading posters, sign boards in locality through orally/ written forms/ gesturesö. 	<ul style="list-style-type: none"> • Shares the details of the observed objects/events/ phenomenon orally/ written/ drawings/any other ways or her choice E.g., “ in an activity on survey of sources water in the neighbourhood, to share the process of survey followed by them, such as how many sources observed, who provided information,”. how information was recorded,etc (tabular form/statements) <ul style="list-style-type: none"> • Reflects on the observation report of peer group and takes feedback from others. E.g., òreflects on sprouts of various seeds, done by peer and accepts feedback on that.”
<p>Discussion: (Pedagogical Processes)</p> <ul style="list-style-type: none"> • Creating a conducive environment for group work where children are well aware of each other’s strengths and utilizing opportunities to discuss and share personal experiences. – Providing equal opportunities to all children to share personal experiences by devising various ways – Opportunities to listen’s other’s points of view 	<p>Learning Indicators: III</p> <ul style="list-style-type: none"> • Involves in group discussions related to the problems seen in immediate surroundings. o E.g., “wastage of water, littering and throwing garbage use of plastic bags, food wastage in the family, need for bridges, kind of houses, etc”. 	<p>Learning Indicators: IV</p> <ul style="list-style-type: none"> • Engages and participates in discussions on the themes related to her day to day life. o E.g., “discusses on common topics such as spoilage of wastage of food causes of noise and water pollution need for bridges and level crossing, how to resolve dispute in games”. 	<p>Learning Indicators: V</p> <ul style="list-style-type: none"> • Participates actively in group discussion in the class on the issues related to natural and social environment. o E.g., “on a topic defined role in the family and school, asking them (before giving their opinion) to discuss their personal experiences, listen to other’s views on gender

<ul style="list-style-type: none"> • Providing opportunities to all children for expressing views and ideas in the class, without discriminating them. – <i>Creating opportunities for Learning from each other’s experiences.</i> • Making comments that relate to the topic being discussed with their daily life situation • Engaging children in open-ended activities to make the discussion enriching – Opportunities to discuss family experiences, new paper clippings, other incidents.. 	<ul style="list-style-type: none"> • Listens to others experiences/ideas in group discussion on the problems / themes related to immediate surroundings <ul style="list-style-type: none"> ○ E.g., “where do their family get water, who fills water in the family, do their family discriminate in the community/public places”. • Shares experiences verbally and accepts feedback given by peers group on her work. <ul style="list-style-type: none"> ○ E.g., ‘Water in Our Life’, and narrating one’s own experiences of where s/he has seen people wasting water such as while cleaning the houses, utensils, clothes, vehicles, and reflects her views”. • Reflects on others work/views in a group <ul style="list-style-type: none"> ○ E.g., “suggests how can the use of plastic bags can be reduced, how to dispose garbage in the locality”. 	<ul style="list-style-type: none"> • Listens to others on the themes related to day to day life <i>such as peer experiences related to food items eaten in the family, ways of cooking in the family, source of water in the locality.</i> • Shares experiences or gives her own views in group or individually and accept feedback given by others on her work. <ul style="list-style-type: none"> ○ E.g. , “sharing experiences related to visited place (mela, festival, historical place) verbally or in written form, giving her own views/ opinion on the problem related to water in her day to day life, problems for using plastics”. • Reflects on others work/ views/ opinion in group or asked by teacher individually in the class <ul style="list-style-type: none"> ○ E.g., “giving feedback to peer on written work/ drawing, giving opinion on ways to reducing wastage of water, reducing use of plastic”. 	<p><i>discrimination in work at home(cooking food, fetching water, cleaning house and utensils). Later asking groups to give their opinion and reflects on this issue”.</i></p> <ul style="list-style-type: none"> • Listens carefully other’s experiences/ opinion in the group and wait for her turn E.g., “on a topic related to animals/ birds in our lives, providing them opportunities to talk to some people who keep animals for their livelihood i.e. snakes, parrot and asking them to express their opinion”. • Shares one’s experiences/opinions on the issues related to social and natural environment. • Reflects on others experiences/ideas and accepts feedback from others on one’s ideas/thoughts with openness in group activities/discussion. E.g., harms/dangers in using plastic and suggest ways what can be
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			<ul style="list-style-type: none"> Finds out from other available sources such as discusses with elders/ teacher/peer group to get more details <i>on any topic related to day to day life.</i>
	Learning Indicators: III	Learning Indicators: IV	Learning Indicators: V
<p>Expression: (Pedagogical Processes)</p> <ul style="list-style-type: none"> Providing opportunities for sharing oneö's own feelings (through various ways), ideas and listening to others in classroom situations; – <i>Providing materials such as clay, paper, other objects or any locally available material for their expressions.</i> Creating situations to express opinions on issues <i>such as defined gender roles (discrimination seen at home in work done by mother/ father) in family, school, playground; on issues of discrimination of the under privileged</i> 	<ul style="list-style-type: none"> Expresses oneö's feelings / ideas through orally /verbally form <i>in a creative writing exercise on – “If I could fly like a bird”, she can describe her own ideas creatively where would I like to go? She describes how does she interact with family as well as others who cannot see, speak or hear? How does she help them with their work?</i> Uses appropriate language/gestures to show care, respect and accept the people as they are. Expresses views/opinion on problems related to day to day life and misuse of environmental resources. <i>E.g., “ reduce</i> 	<ul style="list-style-type: none"> Expresses oneö's feelings/ ideas through various ways orally/ written /gestures i.e. <i>she could orally express feelings what help she could do for elders, differently abled. She could creatively express in written form if she were police what work I could do</i> Use appropriate language, gestures to show care, respect for others. o <i>E.g., “shows concerns for animals, respect elders, old people in the family/locality”.</i> Expresses her feelings/ideas on any event/ situation/objects through creative expressions by using locally available material. 	<ul style="list-style-type: none"> Expresses ideas, feelings of self, others through gestures, body movement, drawings, sculpting (non-verbal expressions) Use appropriate language, gestures to show care, respect for others. <i>E.g. “shows concerns for animals, respect elders, old people in the family/locality”.</i> Expresses/shares oneö's own ideas/feelings or others through writing in a creative manner.

<ul style="list-style-type: none"> Using mobility aids like wheelchair, crutches, white cane etc. Involving all children as active participants in all activities and creative play 	<p><i>wastage of food, water in school/family</i>".</p> <ul style="list-style-type: none"> Creates designs by using variety of material by using fallen dry leaves, flowers, clay and pebbles, etc. <p>Learning Indicators: III</p>	<ul style="list-style-type: none"> Creates designs by using variety of material by using fallen dry leaves, flowers, clay and pebbles, etc. <p>Learning Indicators: IV</p> <ul style="list-style-type: none"> Recognizes that there can be more than one possible explanation of an event / activity. <i>E.g., "describes beauty of Taj Mahal, monuments, process of water purification followed at home"</i>. 	<ul style="list-style-type: none"> Creates designs by using variety of material by using fallen dry leaves, flowers, clay and pebble <p>Learning Indicators: V</p> <ul style="list-style-type: none"> Recognizes that there can be more than one possible explanation of an event / activity. <i>E.g., "describes beauty of Taj Mahal, monuments, process of water purification followed at home"</i>.
<p>Explanation: (Pedagogical Processes)</p> <ul style="list-style-type: none"> Providing opportunities and getting children involved in making guesses/estimates by asking simple questions, creating situations, showing pictures, etc. Providing opportunities to understand one's relationship with others; <i>e.g. relationship with close and distant relatives;</i> Encouraging children <i>to think of different ways (divergent thinking of any explanation) of solution of any problem e.g. different ways to go to principal's</i> 	<ul style="list-style-type: none"> Makes her own guesses and gives her own reasoning on any event/situation in day-to-day life. <i>e.g., "how many hand spans will cover the table/desk?" "Where do animals drink water other than the pets?" "How many mugs of water are required to fill a bucket"?</i> Explains the relationships of <i>self with other members of the family and depicts through drawings and written language.</i> <i>E.g. makes family tree (depicting only two generations (father/grandfather)</i> 	<ul style="list-style-type: none"> Makes one own guesses and formulates her own reasoning on any seen event/phenomenon in day to day life. <i>E.g., "how much water is required to cook the rice for four people; how much food will be required for 2 day journey by train for her family"</i>. Seeing relationships of self with others. <i>E.g., "she explains the relationships of family members with self and also relationships among themselves. She can depict this by drawing family tree". (more than two generations)</i> 	<ul style="list-style-type: none"> Describes any event/ phenomenon/ situation in one's own way (verbally/ written/ non verbal). <i>E.g., "she is able to reason out why people living in Juggies are displaced from their homes, why do we need to keep pickles in the sun during its process of making etc"</i>. Identifies the reasons of any problem/ event phenomenon in natural and social environment. <i>E.g., "making logical connections why does food spoil more in summer than winter seasons, how do we know food is spoils sooner than others"</i>.

<p>room. Which do they think is the longest/shortest route and explain. Children with no vision should be allowed to use their mobility stick to walk different paths beforehand. This will encourage them to participate with other children in the activities</p>	<p>Learning Indicators: III</p>	<ul style="list-style-type: none"> Using evidences/ information to make simple predictions with the support of elders/ on her own. For example using information about mode of transport she could predict fuel consumption in different vehicles. <p>Learning Indicators: IV</p>	<p>Learning Indicators: V</p> <ul style="list-style-type: none"> Identifies similarities or differences in various environmental objects, plants, animals, food items based on their observable features.
<p>Classification: (Pedagogical Processes)</p> <ul style="list-style-type: none"> Creating and utilizing classroom for group work; activity site by depicting various objects in the classroom to develop discrimination skills/identifying skills Providing material & objects for grouping to get the hands-on experiences; for <p>– <i>Sorting objects by providing material of various size, colour, texture in small group and giving activities to sort out/group objects, based on one criteria at a time</i></p> <p>– <i>Gradually (in classes IV/ V) providing opportunities to group based on two or more than two criteria at a time</i></p>	<ul style="list-style-type: none"> Identifies objects, plants, animals, food items based on their observable features in the surroundings Engages actively in sorting the objects by one/two observable features at a time. E.g., “sorting objects on the basis of one/two visible features at a time e.g. (size, colour, shape, texture etc. classify leaves on the basis of their smell, colour, shapes, texture)”. Groups objects/animals/plants according to similarities in relation to their appearance/habitat/food/movement. E.g., “<i>looking for similarities and differences in different ways of cooking – like frying, roasting, steaming; Sorting things that are made from rice and wheat;</i>” Classifies objects/animals/plants 	<ul style="list-style-type: none"> Identifies objects, plants, animals, food items based on their observable features in the surroundings Differentiates/ discriminates environmental objects, animals, plants, food items based on their observable features. Engages actively and sorts/ group objects, plants, animals based on two common features at a time. <ul style="list-style-type: none"> E.g., “<i>groups animal’s pictures having beak and claws in one group and animals who do not have these features in other category</i>”. Compares objects, plants, animals, mode of 	<ul style="list-style-type: none"> Sequences / sorts by their size, shapes, colours, texture Classifies/ make categories of the objects, leaves, picture of plants, animals, food items, etc. based on two or more than two features at a time. <ul style="list-style-type: none"> E.g., “<i>group flowers based sambhar, tea and then sorting these in to solids and liquids</i>”. Compare objects plants, animals, food items based on their

	<p>according to differences in relation to their appearance/habitat/food/movement. <i>E.g., “Making a list of foods that one often eats such as dals, vegetables, rice, soup, water, roti., biscuits, sambhar, tea, and then sorting these into solids and liquids”.</i></p> <p>Learning Indicators: III</p>	<p>transport, food items, shelters of animals based on their similarities and differences as per their observable features. <i>E.g., “compares various mode of transport having common features i.e. having 4 wheels, driven by petrol, driven and observes differences in them such as size of wheels (small, big), sounds of vehicles”.</i></p> <p>Learning Indicators: IV</p>	<p>similarities and differences as per their observable features more minutely. <i>E.g., “Listening the differently materials seen in the buildings nearby- sand, cement, steel, bricks, and aluminum and classifying these in various ways”.</i></p> <p>Learning Indicators: V</p>
<p>Questioning: (Pedagogical Processes)</p> <ul style="list-style-type: none"> • Providing opportunities for <ul style="list-style-type: none"> – new ideas/questions to emerge – Framing questions for own queries and sharing with peers/elders; – Constructing knowledge by using various resources other than the textbook i.e peer group interaction, group work, puzzles, variety of concrete material • Creating supportive climate where children have a freedom to raise questions; 	<ul style="list-style-type: none"> • Expresses curiosity on any phenomenon/ event/celebration at home/in the immediate surroundings • E.g., ñrainbow and cloud formation, customs followed in familyö • a.)Asks questions that demonstrates a range of thinking skills (what, why, where) <i>e.g. “Why do we not eat all the vegetables throughout the year?” “Why does my four-month old sister only drink milk?”</i> • 2.b)Generates/frames questions on her own on familiar objects/animals/plants and events in the immediate surroundings. <i>e.g. “from where do</i> 	<ul style="list-style-type: none"> • Expresses curiosity on observations on the new objects/ event/ phenomenon (not only of immediate surroundings but by seeing other ways i.e. T.V, films, newspapers). • Asks questions/ frame questions of higher order (not only of what, & where level but want to know why and how level) to know the answer. <i>.E.g. “why do we preserve winters (some) vegetables, for summers , why do we need to keep preserved food items in sun. Why do some areas in the locality/colony only get regular water supply”</i> 	<ul style="list-style-type: none"> • Expresses curiosity while observing new objects/situation /phenomenon in the natural and social environment. • a) Asks and frames questions to find out more details. b)Ask questions independently or with classmates, to explore a topic further. <i>E.g., “while working cooperatively in a group, plan their flower garden by posing questions (what flowers grow best in the available soil and lightening conditions?, what materials will be needed to maintain the garden?) and gathering data to address these questions.”</i>

	<p><i>plants get water?” Where do lizards go in winter? “What happens if there are heavy rains?” “How is rain both good and bad for the environment?’ What will happen if birds could not fly but only walk on their feet? “Why dals/seeds are soaked before cooking; why round, smooth pebbles are found near the river side; how grass and small plants grow on their own, without being planted by anyone”.</i></p> <ul style="list-style-type: none"> • Reflects critically on various issues of social and cultural discrimination. (Related to working children, girls/women, elderly and differently abled). <p>Learning Indicators: III</p> <ul style="list-style-type: none"> • Defines situation or events in her simple language. 	<ul style="list-style-type: none"> • Expresses her creativity through various ways <i>E.g</i>“<i> asking questions, framing questions in class activities, creates new work etc</i>” • Reflects critically on various issues related to social/cultural aspects to childø life. <i>E.g. gender discrimination in the family, school, neighborhood visit to Ojha’s, Bhagats for treatment</i> • Accepts feedback given by peers/ elders on oneø own work/ view and gives feedback to others objectively. <p>Learning Indicators: IV</p> <ul style="list-style-type: none"> • a). Describes situation/ event/ phenomenon in her own language in a sequential manner as seen by her <i>E.g. , “changes seen in sprouting of seeds, changes seen in various seasons”.</i> 	<ul style="list-style-type: none"> • Raises critical questions on the displayed material <i> such as posters/advertisement new items in school/ neighborhood.</i> <p>Learning Indicators: V</p> <ul style="list-style-type: none"> • Reads and analyses pictures, photographs, textual material on her own/support of elders. <i>E.g. “after observing picture of a fort/visit to a fort analyzes the reasons why kings built huge walls, big gates, huge boundary walls etc”.</i>
<p>Analyzing: (Pedagogical Processes)</p> <ul style="list-style-type: none"> • <i>Creating situations and encouraging children to predict;</i> 			

	<ul style="list-style-type: none"> Predicts and identifies probable reasons of any event/situation/phenomenon seen /observed E.g., “ predict that a ten spoonful of water would fill a bowl or identifies why do a wet surface would dry more quickly when exposed to wind”. Makes simple inferences (reasoning); E.g. , ð between the shapes and size of vessels and the water stored in them. e.g. Taking vessels of different shapes and sizes and predicting and testing which one contains more/less water, etc.? <p>Learning Indicators: III</p> <ul style="list-style-type: none"> Creates simple objects (clay/locally available material) and engages in hands on activities through pictorial instructions or with the support of elders. 	<ul style="list-style-type: none"> b). Summarize information and opinion about a selected problem or issues E.g., ð <i>What difficulties if there would be no bridge to cross over?”.</i> Predicts/ identifies probable reasons of any situation/event/phenomenon seen by her E.g., “predicting/ identifying why six month old child cannot eat, why some old people cannot eat hard things, why river gets spoilt”; Making a guess of how far s/he can roll a ball along the ground and then measuring how far it actually goes.” Thinking of three different ways to go from the classroom to the principal’s room. Which do s/he think is the longest /shortest route?” Makes simple inferences on any event/ situation / phenomenon seen by her E.g., “all things cannot dissolve in water, sugar/salt dissolves fast in warm water than the cold water, River’s water pollutes due to cleaning utensils, clothes, bathing animals, throwing garbage in water or near waterö. <p>Learning Indicators: IV</p> <ul style="list-style-type: none"> Makes/ creates simple objects/ simple model with the locally available material on her own with the support of her elders. 	<ul style="list-style-type: none"> Predicts the reasons (cause and effect) about different scientific phenomenon seen by her. E.g., ð<i>why dal/whole grains are soaked before cooking; why smooth pebbles are found near the river side’s; why does the curd get sour more in summer than in winters?”</i> Draws simple inference of any observed event or phenomenon in the natural environment. E.g. ð<i>discussing possible reasons and derives their conclusion”.</i> <p>Learning Indicators: V</p> <ul style="list-style-type: none"> Makes/ creates simple objects / model with the locally available material on her own with the support of elders.
<p>Hands on activities: (Pedagogical</p>			

<p>Processes)</p> <ul style="list-style-type: none"> • Providing opportunities for individual/group work (activities/hand-on activities) for children to manipulate, tryout, improvise innovate by using locally available material. 	<p><i>E.g. “improvising/making a toy-train from empty matchboxes, simple jigsaw puzzle using cardboard; creating pictures of different animals with dried leaves.”</i></p> <ul style="list-style-type: none"> • Tries out/manipulate with the given material/objects /hands on activities with the support of elders/independently. <i>e.g., putting water in various containers to demonstrate water takes the shape of any container, flows down and feels wet;</i> <p>Learning Indicators: III</p> <ul style="list-style-type: none"> • Develops sensitivity towards plants, animals, environment needs of differently-abled children, and learns to express feelings in different ways. 	<ul style="list-style-type: none"> • Conducts simple hands-on-activities in group situation <i>E.g. “dissolves sugar, salt, sand, wood shavings in water and share results.”</i> • Demonstrates that water takes shape of the container <i>E.g., “ demonstrates by using different shape vessels</i> <p>Learning Indicators: IV</p> <ul style="list-style-type: none"> ○ Reflects sensitivity towards the needs of differently- abled children, and learns to express feelings in different ways 	<ul style="list-style-type: none"> ○ Performs simple experimental objects/materials under the guidance of elders. ○ Conducts simple hands-on-activities /experiments in the group with the support of elders. <i>E.g., “what dissolves in water and what does not (sugar, chalk, salt etc.)”</i> and write their own observations. <p>Learning Indicators: V</p> <ul style="list-style-type: none"> ○ Reflects sensitivity towards plants, animals, old, young ones, differently-abled etc. <i>E.g. “protection of forest , species of various animals, such as poaching of tiger.ö</i>
<p>Concerns for Justice and Equality: (Pedagogical Processes)</p> <ul style="list-style-type: none"> • Providing opportunities for activities and sharing experiences in an unbiased classroom environment to show respect and acceptance of people as they are such as <i>reading stories/narratives that promote respect, care, empathy, gender sensitivity and problem solving.</i> 	<ul style="list-style-type: none"> • Expresses concern for equality and for justice for disadvantaged group of society, and gives her own opinion 	<ul style="list-style-type: none"> ○ Expresses concern for equality and for justice for disadvantaged group of society, and gives her own opinion 	<ul style="list-style-type: none"> ○ Voices opinion and attempts to take initiatives for equality.

<ul style="list-style-type: none"> • Creating unbiased classroom environment and giving equal opportunities to all; <i>e.g. a child could make a ramp for physically handicapped people in her drawing, write a poem for her classmate who cannot see but has many other skills.</i> • Developing themes and activities that are inclusive of culture, language and diversity • Using appropriate words and statements with peers when speaking , sharing and taking turns 	<ul style="list-style-type: none"> • Avoids wastage of material and suggests ways for reuse of material in day to day life • Shows no biases in behavior (<i>E.g. "sitting, eating, working, sharing with all irrespective of traditional and cultural biases"</i>). <p>Learning Indicators: III</p> <ul style="list-style-type: none"> • Engages in group work and share things with peers. 	<ul style="list-style-type: none"> • Describe in detail how to show respect for the environment and avoid wastage of material and suggest ways to reduce wastage for reuse of material. <i>E.g., "recycle"; "clean up school premises"</i>. • Shows no biases in behavior <i>E.g. "sitting, eating, working, sharing with all irrespective of traditional and cultural biases"</i>. <p>Learning Indicators: IV</p> <ul style="list-style-type: none"> ○ Engages and cooperates in group work calmly. <i>E.g., " collage work, Mural "etc.</i> 	<ul style="list-style-type: none"> • Describe and document the steps involved in supporting actions that positively affect the school environment <i>E.g. " involved in school clean up, campaign"; "group projects"; "putting used paper in the recycle bins"; "conserving materials" , " not to throw leftover food in the grounds"</i>. • Show concerns in any situation on gender differences/ biases with children in family and school <i>such as defined gender roles in the family, caste discrimination and children belonging to marginalized sections of the society, etc.</i> • Shows sensitivity towards plants, animals, old, young ones, differently abled, etc <p>Learning Indicators: V</p> <ul style="list-style-type: none"> ○ Engages and cooperates in group more work calmly; listen and work with other children.
<p>Cooperation: (Pedagogical Processes)</p>			

<ul style="list-style-type: none"> • Creating situations for group work and whole class activities in the class by <ul style="list-style-type: none"> - Providing opportunities to act as group leader, as a team member - Giving responsibilities • Creating and utilizing classroom environment for group learning • Providing opportunities to identify their own strengths and areas which need improvement with the support of peer group and elders • Create situations to learn things in a collective manner 	<ul style="list-style-type: none"> • Accept responsibility for age appropriate tasks <i>E.g., “turning off the lights when not in use; not wasting paper; throwing litter in the bin”; organizing belongings;”</i> • Expresses empathy for others. <i>E.g., “Extend helps/support to friends when required.”</i> • Follows rules made for games or other collective tasks undertaken in the school/home. • Works with others to solve problems. <i>e.g., children are asked to turn to the child next to them and work cooperatively in answering a question; solves a problem by working with others, sharing ideas, and testing the solutions</i> • Shows some responsibility for his/her own health, and the health and well 	<ul style="list-style-type: none"> ○ Accepts responsibility to lead the group for certain expected tasks, undertaken in the classroom. <i>E.g., “making a to-do list,”; “staying on a given task”.</i> ○ Shows respect for other children and adults <i>.E.g., “taking turns ; letting others to finish an activity or asks to join them</i> • Follow rules and understand the reasoning behind that. <i>E.g., “listening to others without interrupting.”</i> • Work with others and appreciate contributions of others in class activities. <i>E.g. “work in cooperative group to design a flower garden for their school”</i> 	<ul style="list-style-type: none"> ○ Accepts and takes responsibility in a more refined manner <i>.E.g., “learning from mistakes”; “encouraging others to do the things in a right way.”</i> ○ Recognize and accept individual differences. <i>E.g. “Describing the problem without blaming.”</i> ○ Follow rules made by group members for better functioning of the group <i>E.g. “using dustbin, making queue for the mid day meal, follow instruction for not using polythene , avoiding the fire crackers on festivals.</i> • a)Exercise appropriate control in independent and group activities. <i>E.g., “focus on group or independent task to completion.”</i> b.)Address challenges using appropriate social and coping skills. <i>E.g., “doing things for other people;” changes activity when told ‘NO ‘ or presented with an alternative by teacher or peer</i> • Working through challenges in a small group. <i>E.g., “learns to negotiate and appreciate the difference of opinion / view point</i>
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	<p>being of others. E.g., “practices good personal hygiene and cleanliness; discusses healthy habits, and practice self-control by abstaining from actions that harm one’s self as well as others”.</p> <ul style="list-style-type: none"> • Creating and utilizing school environment for group learning E.g., ð takes a pollution walk, gathering examples of litter and trash”. 		<p><i>of other members”.</i></p>
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Guidelines for users

Curricular expectations or learning outcomes and learning indicators for classes III and V have been developed to facilitate teachers/other stakeholders with the understanding to undertake this exercise holistically. Some general guidelines for users are as under:

- The curricular expectations of Environmental studies (EVS) have been developed for classes III and V. These outcomes are identified keeping in view the objectives of teaching-learning of EVS, derived from the recommendations of National Curriculum Framework -2005. The learning outcomes for class III have been identified in relation to child's immediate surroundings as children of this stage view the environment in a holistic way rather than compartmentalized into natural and social environment. While the learning outcomes for class V have been identified, focusing gradually moving from immediate environment to the natural and social environment.
- In order to achieve these learning outcomes, what kind of pedagogical processes are necessary to be required, have been discussed in the column one. As EVS learning is process-oriented its content has to be derived from child's real life experiences, as per the need and context. The column two discusses and suggests this aspect at length along with examples.
- The column two - four presents the various learning indicators of EVS. A conscious attempt has been made not to provide these indicators in the form of rubric or outcome based assessment standards. The reason being, by providing assessment rubrics which focus on testing or on product without taking care of child's process of learning. Testing knowledge, skills likely to have 'wash back' effects on curricular expectations. Thus these indicators are not summative in nature.
- The learning outcomes and pedagogical processes and learning indicators do not correspond one to one. The reason being learning outcomes are to be achieved over a period of time with the regular interaction with children, as these are related to child's abilities, skills, values, attitudes and other personal, social qualities. Thus various processes need to achieve the expected learning outcomes. The progress of child's learning on each process can be seen through some indicators. These indicators have been given class-wise and are suggestive in nature.
- Learning Indicators for each class include examples to understand the extension of learning. For example, the level of complexity and extension of learning from class III to V can be understood easily. These examples would help you to understand length, depth and width of each broad process indicator more easily.