



NISHTHA

Module 8

**Pedagogy of Environmental Studies
(Primary Stage)**

**National Council of Educational Research and Training
New Delhi, India**

Overview of Module

- **Learning Objectives of Module**
- **Environmental Studies (EVS) as a Curricular Area**
- **Curricular Expectations and Learning Outcomes in EVS**
- **Resources and Strategies for Teaching-Learning of EVS**
- **Scope and Pedagogical Dimensions of the theme 'Water'**
- **Suggested activities for SRGs in EVS**
- **Feedback about Teaching and Learning of EVS by participants**
- **Suggested Readings**

Learning Objectives of Module

- **appreciate EVS as an integrated curricular area at the Primary Stage**
- **relate its objectives with the concepts and issues included in the syllabus**
- **locate the concepts and issues in textbooks and be aware of different approaches to their transaction in classroom**
- **plan and design context and need specific learning experiences for children**
- **organize learning opportunities to engage all learners meaningfully**
- **use varied assessment strategies to map the learning progress against learning outcomes in EVS**

Environmental Studies as a Curricular Area

- **Subject from class III to V**
- **Integrated perspective → brings together insights from Science, Social Studies & Environmental education → for inter-related understanding to develop**
- **Thematic approach → Six themes (Family & Friends, Food, Shelter, Water, Travel, Things we make & do)**
- **Syllabus web moves outwards → from child's immediate surroundings (natural, social & cultural) to wider environment (neighborhood & community at large)**

Curricular Expectations in EVS

As per EVS curriculum, children are expected to

- acquire awareness about immediate/ wider surroundings/ environment through lived experiences on various themes related to daily life
- nurture natural curiosity and creativity for the immediate surroundings
- develop various processes/skills through interaction with immediate surroundings
- develop sensitivity for the natural, physical and human resources in the immediate environment.
- point out/ raise issues related to equality, justice and respect for human dignity and rights

Pedagogical Processes

- Learning situations in context of children → considering their learning needs & styles
- Primacy to children's experiences → to connect these with school knowledge → active participation
- Facilitate children to construct their own knowledge → to explore their existing ideas and build further upon them
- Real world exposure to encounter various social issues (gender bias, marginalization, challenges of differently abled, natural concerns)
- Developing basic language skills
- Inclusive Resource materials, School environment & Pedagogical processes

Variety in approaches, strategies & resources → to ensure that each learner gets opportunity → to observe, express, discuss, question, critically think, improvise, analyze → involving use of multiple senses in individual and group set-ups.

Learning Outcomes in EVS

Class III (EVS)

Suggested Pedagogical Processes	Learning Outcomes
<p>The learner may be provided opportunities in pairs/groups/ individually and encouraged to —</p> <ul style="list-style-type: none"> observe and explore the immediate surroundings, i.e., home, school and neighbourhood for different objects/plants/ animals/birds for their concrete/ simple observable physical features (diversity, appearance, movement, places of living/ found, habits, needs, behaviour etc.) observe, explore their home/family for the people whom they live with, what works they do, the relations and their physical features and habits and share the experiences in different ways explore the neighbourhood for the means of transport, communication and what works people do observe their home/school kitchen for food items, vessels, stoves, fuels and cooking processes discuss with elders and find out from where we/birds/animals get water, food (plants/ animals, which part of the plant we eat etc.), who works in the kitchen, who eats what, who eats last visit different places in the neighborhood, e.g., market to observe the process of buying/selling, journey of a letter from post office to home, local water bodies etc. ask and frame questions and respond to the peers and elders without any fear or hesitation share their experiences/observations through drawing/ symbols /tracing / gestures/ verbally in a few words /simple sentences in their own language compare objects/entities based on differences/ similarities for observable features and sort them into different categories 	<p>The learner —</p> <ul style="list-style-type: none"> identifies simple observable features (e.g., shape, colour, texture, aroma) of leaves, trunk and bark of plants in immediate surroundings identifies simple features (e.g., movement, at places found/kept, eating habits, sounds) of animals and birds in the immediate surroundings identifies relationships with and among family members identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.); places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do, cooking processes, etc.) at home/school/ neighbourhood describes need of food for people of different age groups; animals and birds, availability of food and water and use of water at home and surroundings describes roles of family members, family influences (traits/ features /habits / practices), need for living together, through oral/ written/other ways groups objects, birds, animals, features, activities according to differences/ similarities using different senses. (e.g., appearance/place of living/ food/ movement/ likes-dislikes/ any other features) using different senses.
<ul style="list-style-type: none"> discuss with the parents/guardians/ grandparents/elders in the neighbourhood and compare their lives in past with that of now for the things of daily use such as clothes, vessels, work done by people around, games collect and arrange the objects such as, pebbles, beads, fallen leaves, feathers, pictures, etc., of their finds for their surroundings and arrange in an innovative manner, e.g., heaps, pouches and pockets critically think to guess/estimate and predict about the happenings, situations, events and the possible ways to check, verify, test them., For example, which directions (left/right/front/back) to be followed to reach a nearby object or place; which vessel (of some volume) contains more water; how many spoons of water to fill a mug or a bucket etc. perform simple activities and experiments to observe, smell, taste, feel, hear using different senses as per their abilities to identify, classify, differentiate between objects, features, entities etc. collect observations and experiences on the experiments and activities and share that orally /gestures /sketches /tables /writing in simple sentences manipulate local and waste material, fallen dry leaves/flowers, clay, fabrics, pebbles, colours to create or improvise drawings, models, designs, collage etc. For example using clay to make pots/vessels, animals, birds, vehicles, furniture from empty matchboxes, cardboard, etc. share experiences of their relationships with pets and domestic animals or other birds and animals in surroundings participate actively and undertake initiatives of care, share empathy, leadership by working together in groups, e.g., in different indoor/outdoor/local/ contemporary activities and games, carry out projects such as taking care of a plant(s), feed birds/animals, things around them. 	<ul style="list-style-type: none"> differentiate between objects and activities of present and past (at time of the elders). (e.g., clothes /vessels /games played/ work done by people) identify directions, location of objects/ places in simple maps (of home/ classroom/ school) using signs/symbols/verbally guesses properties, estimates quantities; of materials/activities in daily life and verifies using symbols/non-standard units (hand spans, spoon/mugs, etc.) records observations, experiences, information on objects/activities/ places visited in different ways and predicts patterns (e.g., shapes of moon, seasons) creates drawings, designs, motifs, models, top, front, side views of objects, simple maps (of classroom, sections of home/ school, etc.) and slogans, poems, etc. observes rules in games (local, indoor, outdoor) and other collective tasks voices opinion on good/bad touch; stereotypes for tasks/play/food in family w.r.t gender, misuse/wastage of food and water in family and school shows sensitivity for plants, animals, the elderly, differently abled and diverse family set up in surroundings. (For the diversity in appearance, abilities, choices - likes/ dislikes, and access to basic needs such as food, shelter, etc.)

Let us reflect

- **What pedagogy do I follow in teaching-learning of EVS?**
- **What resources do I use ?**
- **How do I go about in assessing the learning?**
- **What strategies do I adopt to make my class inclusive?**

Resources & Strategies for Teaching-Learning of EVS

- **Textbooks**
- **Supplementary Books**
- **e-Resources - Audio Video, Pictures, Interactives**
- **Media, Films**
- **Environment**

- **Projects**
- **Discussion**
- **Experiments**
- **Explorations**
- **Surveys**
- **Interactions/Interviews**
- **Role Play, Story telling**
- **Field Visits**
- **Drawing and Craftwork**
- **Quiz**
- **Any other**

Some ideas

Projects

- Find out availability of water at the time of your grandparents and parents. Compare it with the present situation.
- If there is a lake, well or step well near your house or school visit it and find out more about it.

Discussion

- Why some people have very less water and others have it in plenty?
- What would happen if you do not get water for two days?

Some ideas

Experiments

- What floats/sinks, What dissolves/does not dissolve?

Surveys and Interviews

- A survey of school/neighbourhood for wastage of water
- Interview of any one – farmer, mason, gardener, driver, any other

Role Play

- A family where father/mother doing the household chores
- A girl child who stays at home

Activity (Cultural aspect of water)

Let us recite/sing any folk song related to water

Where did you learn this song?

What was the occasion when people sang it?

Are there any specific dances related to water? Name those

Activity (Cultural aspect of water)

What are the festivals in your area where water plays an important role?

- How is water helpful in celebrating that particular festival?

Besides festivals, what are some other occasions/ cultural practices where water is very significant/ worshipped?

Activity (Cultural aspect of water)

Have you seen people immersing statues or flowers to the water? Do people offer eatables to water?

What are some other things which people offer/ throw in water?

Do people also take a holy dip in water?

Have you seen a situation like this?



Source: <https://commons.wikimedia.org/wiki/File:Water-crisis.jpg>

Discuss about this situation



Source: https://upload.wikimedia.org/wikipedia/commons/f/f3/Crisis_of_drinking_water.jpg

Scarcity of Water

- **Method used: Picture reading, questioning and discussion**

- What do you observe in these pictures?
- When is it difficult to get water?
- What are the problems faced by the people due to water shortage?
- Have you ever faced shortage of water in your house? When? What did you do then?

Instead of stating or explaining the reasons, the teacher need to ask questions in such a way that the student share and learn from each others responses. Encourage all the students to participate in discussion.

- **Assessment:**

- The responses given by the students need to be analysed keeping their context in mind.
- Any unique response given by the student can be recorded (anecdote) ; can be used further by the teacher.
- Teacher can record how the students are observing, reasoning, respecting each others ideas, etc. using a checklist.

Think & Share

*If your family received
only two buckets of
water a day, how would
you prioritise the works?*



We get water from the canal itself.

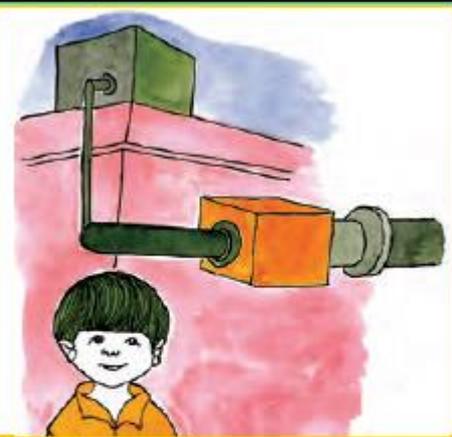
How do we get water?



There is a handpump nearby, but the water that we get from it is salty. We have to buy water for drinking.



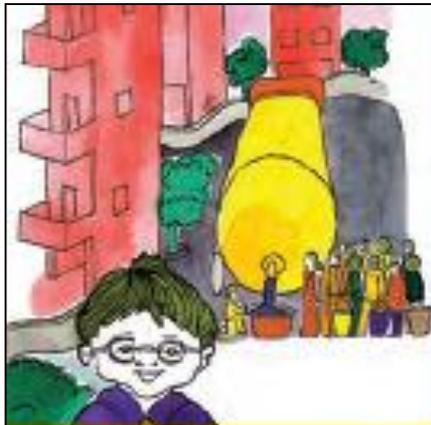
We get water at home for half an hour. We fill this in the tank to use all day. Sometime it is dirty.



We have put a pump directly in the Jal Board pipeline. Now we don't have any problem!



We fill water from the well. The nearby well dried up a year ago. Now we have to walk far to reach the other well. We are not allowed to take water from some of the wells because of our caste.



A Jal Board water tanker comes to our colony twice a day. We have to stand in a long queue to get water from the tanker. People at times have fights over water.



We have put a motor to pump up the water from the borewell. But there is no electricity, so what do we do!



We get water from our taps, all day long.

Water: Availability, Access and Distribution

Questions for discussion upon picture collage:

- What are the ways by which people get water in their house?
- What kind of problems some of these people might face in getting water ?
- Does everyone get adequate water to drink and meet other needs?
- Why do some people have it more and others not? Do you find scarcity of water in every ones life? Or there is a selective group of people who always face water shortage?
- Why do some people put a pump directly in the Jal Board pipe line? Some people draw out water from the ground by deep bore wells. How far is it correct? What problems would other people face due to this? Do you have any such experience?
- In some regions, water has to be fetched from far? Do only women fetch water? Should only women fetch water?
- Do all people use the same source of water? Are there some people who are restricted from coming near to these water sources? Do such people have some separate sources of water?
- What would happen if we had no water?
- Have you seen water being wasted – how? How can we avoid it? Do you reuse water?

Activity

Suggest different ways in which water can be saved/reused/ recycled at

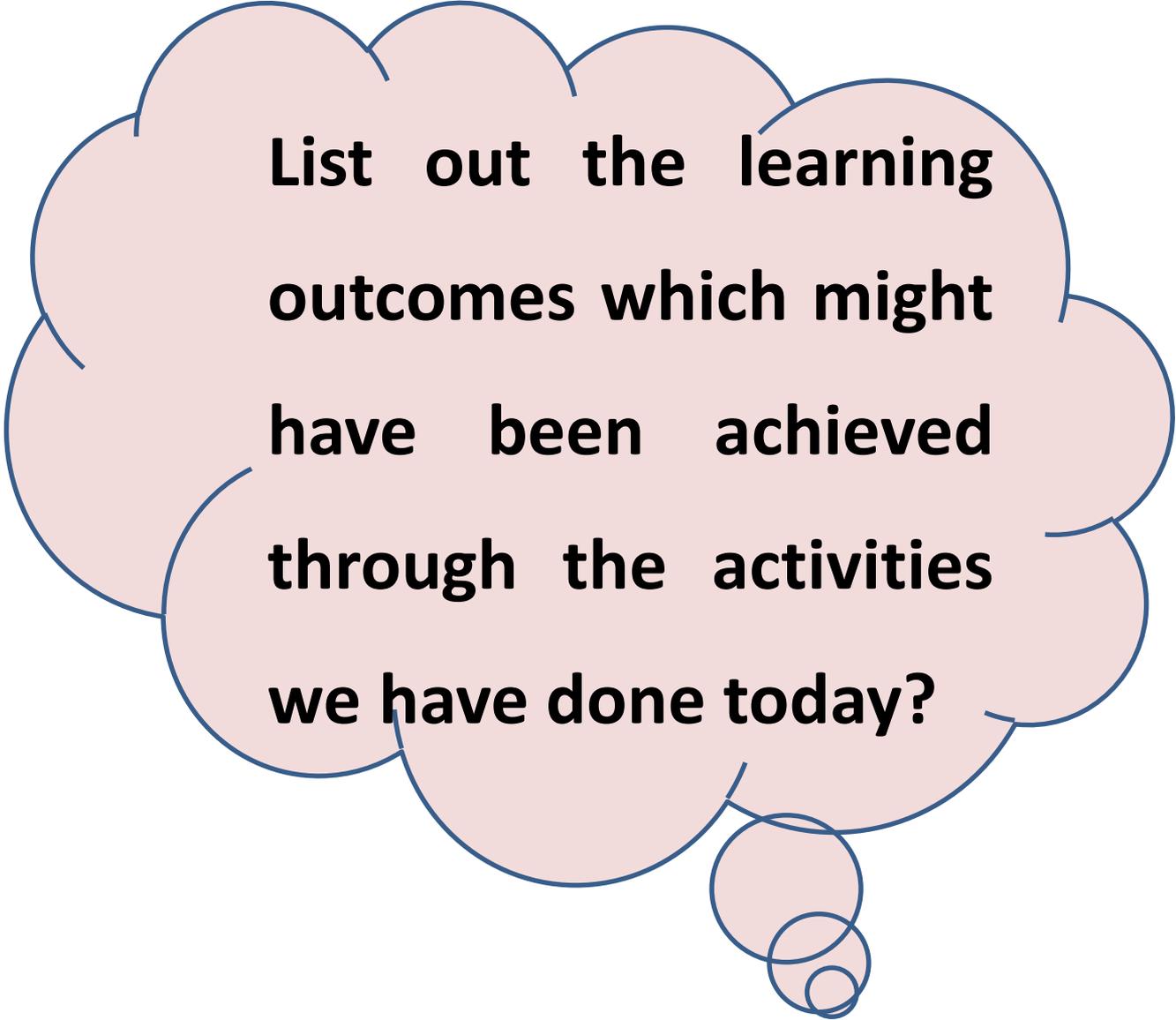
- School, or**
- Home**

You may present your suggestions in the form of poster/ song/ skit/ drawing/ slogan

Assessment Rubric for ‘Survey to find source of wastage of water and interview people to find reasons behind it’

Criteria	Level 1	Level 2	Level 3
Framing questions	The teacher framed all questions for the group	Framed questions with the support of teacher and peers	Framed most questions within group with the help of peers
Collecting Responses	Asked questions with no effort to probe	Asked questions with probing sometimes	Probed deeply and even added new questions during interaction
Recording information and report making	Responses were not organised and verbally shared some information	Systematically recorded the information and presented written report	Systematically recorded the information and presented the report before class both orally and in writing
Drawing Conclusion	Made some sense of the information without giving any suggestions	Drawn appropriate meaning and gave some relevant suggestions	Made meaning and explained logically Practical suggestions were given
Cooperation	Some members contributed and others were not involved at all	Some members have contributed and others were aware/informed	All the members have equally contributed in the work

To ponder over



**List out the learning
outcomes which might
have been achieved
through the activities
we have done today?**

Learning Outcomes targeted in Activities given in Module

- Identifies sources of water and objects for storing water**
- Describes need, availability of water and use of water at home and surroundings**
- Describes roles of family members in fetching and storing water**
- Records observations/ experiences/ information for objects/ activities in different ways and predicts patterns in activities**
- Groups objects/substances which float or sink, soluble and insoluble according to differences/similarities using different senses**
- Guesses (properties, conditions of phenomena) and verifies using simple tools/set ups (e.g., floating and sinking/ mixing)**
- Creates drawings, designs, models, maps, poems and slogans**
- Voices opinion on social discriminatory practices in using water**

Group Activity

Design a brief teaching-learning experience in EVS

- for a particular topic and class**
- integrating content, pedagogy and assessment**
- to achieve one or more learning outcome(s)**

Designing an EVS lesson

- **Class**
- **Theme/ Topic**
- **Learning aspects: Key concepts, process skills, attitudes, values**
- **Context (What does the child already know about the topic, where does the child come from, child's interest, child's style of learning)**
- **Learning Objectives**
- **Creating Learning situations**
 - **Resources needed**
 - **Assessment**
- **Learning outcomes**

Thanks