

Course-505

Learning Environmental Studies at Elementary Level

Assignment-I

Q.1. Is learning of Environmental studies important at primary level? Give reasons in your support through suitable examples.

Answer:

Yes, learning of Environmental studies is very much important at primary level. One of the major concerns of this millennium is taking good care of the environment which nurtures all of us. We have now been living in a situation where environmental degradation is occurring at an unprecedented pace. Hence the immediate need of the day is bringing about an awareness of the environment and its problems at all levels.

Sincere efforts are needed to re-establish our links with the environment. We must protect the environment from 'ourselves'. It is our own life style, greed, selfishness and lack of awareness that is the starting point of all the problems related to the environment. The great scientist Albert Einstein has said "you cannot solve a problem with the same mind-set which created it at the first place". It is only when we truly begin to see ourselves as an indivisible part of the environment, and then there would be a fundamental shift in our mind set towards its conservation.

Teachers play a significant role in the society because of their influence on the children. It is an important study area at the school level and its effective implementation requires a change in the mindset of teachers from mere content transmitters to that of facilitators and co-learners. It calls for a shift in classroom practices from mere 'transmission of the content' to 'transaction of the content leading to transformation of behaviors' in children. Teachers, thus, become the key to the successful transaction of environmental education in schools.

They play a central role in building necessary abilities and competencies in children for exploring, understanding, appreciating and participating in environmental protection and conservation. In order to achieve this, the teacher needs to be empowered to create awareness, attitude and concern in children and facilitate them in understanding and solving environmental problems.

In this process, environment becomes a medium for engaging young minds in the excitement of first-hand observation of nature and understanding the patterns and processes in the natural and social worlds. In this context, it has necessitated a relook in to the curriculum of teacher education, so as to "prepare the young minds to appreciate the importance of environment in a holistic manner, not only for human survival but also for all life forms on Earth". One of the main focuses of Environmental studies is to expose children to the actual world they live in.

The learning situations/experiences of Environmental studies help children to explore and connect with their natural and human made surroundings. Environmental studies helps children develop their own insights into the functioning of several things or understanding human

processes in their environment. Such interactions with their surrounding environment are immensely important in the healthy development of children. Such interactions also enhance children's learning capabilities by providing concrete learning experiences.

The scope of Environmental studies at the school level may be summarized as enabling children to:

- Connect with their natural and human made environment understanding our dependence on the various components of environment (biotic and human made)
- Develop a holistic understanding of their environment
- Develop a multidisciplinary perspective to understanding of our environmental issues/problems and appreciate the impact/s of our daily activities on its integrity.

Schools play a critical role in supporting and helping children explore their environment and construct their own meaning from their interactions/experiences. By structuring and organizing learning experiences for children to explore, understand and express their experiences, the transaction of Environmental studies in the primary stage contributes to development of conceptual understanding, attitudes and values, skills and habits/practices relating to range of subjects/focus areas at the primary level. Such learning experiences also introduce children to some of the hidden benefits such as Development of appreciation and respect for nature and natural resources, diversity that exists in the environment, ability to express feelings and thoughts, etc.

Q.2.How will you design real life based learning in your classroom for teaching learning of EVS ?

Answer:

Objectives & Outcomes

Students will name ways to improve their immediate environment by reducing, reusing and recycling in their lives.

Materials Needed

- A pencil

- The “Reduce, Reuse, Recycle” worksheet
- A crayon or marker for each student
- A computer with access to YouTube
- 6 large sheets of chart paper with 2 labeled “1 Reduce,” 2 labeled “2 Reuse,” and 2 labeled “3 Recycle.”

Procedure

Opening to Lesson

- *Post the pre-made chart papers around the room.*
- Direct students to the Reduce, Reuse, Recycle charts placed around the classroom and ask them if they know what each word means.
- Lead students in a discussion of what they do in their house, or what you do in the classroom to Reduce, Reuse and Recycle.

Body of Lesson

Modeling

- Show the video from Happy Dancing Turtle called “Reduce, Reuse, Recycle.
- They speak rather quickly so you may choose to watch it more than once.
- If the video is not available, lead a discussion about what students already know about Reduce, Reuse and Recycle.

Guided Practice

- Pass out the worksheet.
- Tell students to fill in any examples from the video of what people can do to reduce, reuse and recycle.

- Show the video again (or review the discussion) so that the students can complete their charts.
- Discuss as a class.

Independent Practice

- *Explain the activity to the students before you separate them into groups.*
- Split students into 6 groups and tell each student to get a marker or crayon.
- Assign each group to a chart paper and have them discuss and then write as many ideas as they have that are NOT from the video on ways to reduce, reuse or recycle (depending on which chart paper they are assigned to).
- After about 5 minutes signal for students to move to the next chart paper. Have them read and discuss all of the ideas that the previous group wrote down and then add any new ideas that they may have.
- After about 5 more minutes signal for students to move to the next chart paper. Have them read and discuss all of the ideas that the previous group wrote down and then add any new ideas that they may have.
- Instruct students to go get their worksheet and pencil from their desks and then go with their groups to the 4th chart paper, which will be a repeat of one of the 3 Rs.
- Have them discuss any ideas from this chart paper and notice if there are new ideas that they didn't see in the first chart paper.
- Instruct students to complete this section of their worksheet with ideas from the gallery walk.
- Repeat with chart papers 5 and 6, allowing students time to complete their worksheets.

Closing

Have students go back to their desk and discuss the activity. Ask what new ideas they learned for how to Reduce, Reuse or Recycle and ask how they will apply these ideas in the immediate future.

Assessment & Evaluation

Students will be asked to complete a worksheet and contribute in a class discussion.

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Assignment-II

Q.1. Select any Topic of your choice from textbook of EVS of any level and suggest an activity to teach this topic.

Answer:

Topic: Renewable or Non-Renewable

Materials:

- "Everyday Items" worksheet (one per pair of students)
- "Renewable Resources" worksheet (one per pair of students)
- "Nonrenewable Resources" worksheet (one per pair of students)
- "Renewable or Nonrenewable?" worksheet (one per student)
- Glue (one bottle per pair of students)
- Scissors (one per pair of students)
- Newspaper (one sheet per student)
- A plastic container, aluminum can, steel can, glass bottle, apple, paper and leather belt
- "Natural Resources" overhead
 - "Water Cycle" overhead
 - Rubric overhead
- Rubrics (one per student)

Preparation:

Be prepared to put students in pairs for part of the activity

Discussion

1. Hold up the plastic container, aluminum can, steel can, glass bottle, apple, paper, and leather belt.
2. Put up the "Natural Resources" overhead, and cover up the bottom half (the pictures of the items). Tell the students that all of these items are made from natural resources and that these resources are either nonrenewable or renewable. Explain that nonrenewable resources exist on Earth in limited amounts, e.g., fossil fuels (coal, oil, and natural gas) and many minerals (e.g., iron, gold, and bauxite, the source of aluminum).
3. Hold up the items, one at a time, and ask student volunteers to classify them as made from a nonrenewable or renewable resource. Uncover the rest of the overhead, and review the items that were not discussed (i.e., gasoline, bike helmet, etc.). Briefly explain how natural resources are taken from the Earth and made into products.
4. Let students know that resources can also be classified as perpetual resources. These are forms of naturally recurring energy that are beyond human management, e.g., sun, wind, falling

water, tides. Put up the "Water Cycle" overhead, and explain how the water cycle is an example of a perpetual resource.

5. Introduce the concept of conservation. Ask students whether there are ways that they can use fewer resources. Share one way that students can conserve natural resources. For example, by riding a bike to school instead of driving in a car, students can conserve fuel, which comes from a nonrenewable resource.

Procedure

1. Divide the class into pairs. Give each pair of students the following worksheets: "Everyday Items," "Renewable Resources," "Nonrenewable Resources." Also give them a pair of scissors, and glue.
2. Instruct each pair to cut out the items and classify them by gluing them into one of the two possible categories: renewable or nonrenewable resources.
3. Review with the whole class which items they classified as renewable or nonrenewable resources.

Wrap-Up

1. Ask students what they think will happen to nonrenewable resources if we continue using them. (They will be depleted.)
2. Ask students whether they think renewable resources are always available forever. Pass out one sheet of newspaper to each student, and have them roll it up to represent a tree. Put all of the "trees" together at the front of the class to represent a forest. Ask the students what would happen if they needed to cut down ten trees a year to provide enough paper for their school but only five trees were replanted each year (the natural resource will be depleted).
3. Ask the students to turn to a partner to brainstorm some ways that they can conserve nonrenewable and renewable resources. (Use less. Use renewable resources instead, e.g., a paper bag in place of a plastic bag. Reuse bags and recycle them.)
4. Pass out the "Renewable or Nonrenewable" worksheet, assign students to name one item from each of the four categories (fossil fuels, minerals, plants and animals) and explain how they can conserve the natural resources.

Final Assessment

Have students identify ten items in the classroom, writing the natural resource used to produce the item and whether the resource is renewable or nonrenewable.

Q.2. Discuss the role of learning resources in learning of EVS. Select any one resource and discuss its utility in teaching learning of concepts of EVS.

Answer:

Role of learning resources:

- 1) Real-life based experience, in physical, biological, social and cultural aspects of life are appropriate for EVS. Use of local resources and material facilitate real-life based learning.
- 2) EVS aims to enhance cognitive ability, capacity and resourcefulness in child, and to make her curious about social phenomena – starting with the family and moving on to the wider space. Using learning resources creatively one can achieve this.
- 3) By using local resources, teachers can help students to construct their own knowledge, develop skills and values providing them direct learning experiences.
- 4) With the help of local resources you can build strong relationship with society and neighboring communities.
- 5) Students can connect to the world around them through their studies and vice-versa, which is an important part of learning.
- 6) Students will become aware of their immediate environment.
- 7) Students will be sensitized towards the conservation of their immediate environment.

Institutional Resources

Institutes, especially public service sector ones; can be very effective local learning resources. Each institute has its own unique mandate and vision which eventually contributes to the development/economic goal of the society. A teacher can plan and coordinate visits to relevant institutes. This also ensures real-life link built into the teaching-learning process. Some such possibilities exist in the form of:

Public Facilities:

Public hospitals, bus stations, post offices, police stations Public libraries, banks, veterinary hospitals, gram panchayat offices, office of the Municipality

Museums and Historical Sites:

Museums of natural history, palaces, parks and gardens, laboratories, cold storage

Other establishments:

Plant nurseries, wind farms, universities, dams, zoos, fire stations

Commercial and Industrial set ups:

Power house units, factories which are not harmful for children, shopping malls, local markets, etc.

Local fairs also provide good opportunities for learning:

By visiting Fairs students can learn how market works and can realize the local rituals, dressing style, mode of living of different kind of people.

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Assignment-III

Q.1. Why there is a need of continuous and comprehensive evaluation in EVS teaching learning? As a primary teacher, how continuous and comprehensive evaluation helps you in teaching learning process of EVS?

Answer :

Learning is a continuous process, so should be the 'assessment of learning'. Assessment helps the teacher diagnose gaps and difficulties in learning. If these are addressed as soon as they are noticed, the flow of learning can continue making the Learning process efficient and effective. Classroom assessment should be geared for accomplishing this job for every pupil. Thus good assessment process should be continuous.

Assessment of learning in Environmental studies therefore demands that the assessment process is comprehensive. Assessment should be carried out by self, peers, teacher, parents or occasionally by other school staff. This helps to create a holistic picture of the child's development.

The learners need to use head, hand and heart to attain the Environmental studies objectives. Thus, the teacher should provide opportunities to the learners to use all the five senses, logical thinking, and creative thinking as well as to develop and express their feelings. Consequently the assessment should be based on learning taking place through all the five senses, logical thinking, imagination and the feelings.

The teacher may use oral, written and performance modes to assess child's learning. She will need to sometimes assess each child individually, but at other times assess groups or assess the whole class together. The teacher should not overemphasize any one form of assessment, be it written or oral or activity based. Such diverse and balanced assessment makes assessment comprehensive.

We can say that an assessment will be good and effective only when the assessment has been valid, reliable, fair and flexible. These are the four

important features of good assessment.

- 1) Valid assessment is the one which is relevant to the EVS objectives and also to the learning experiences provided. It addresses the essential skills and knowledge and dimensions of competency, as well as more importantly values.
- 2) Reliable assessment produces consistent outcomes when applied by different teachers in a range of contexts. Objective assessment like 'match the pairs' is likely to be more reliable than subjective assessment such as essay writing.
- 3) Fair assessment does not disadvantage any student and takes into account the personality and preferences of every student being assessed.
- 4) Flexible assessment tools and processes make an assessment suit/ relevant in a range of teaching learning contexts.

Formative assessment helps the teacher diagnose impediments to learning and help the teacher take a corrective action then and there.

Summative assessment helped the teacher to diagnose major gaps in the students' knowledge and understanding.

Various kinds of self assessment as well as peer assessment can add much value to the overall assessment process. Appreciation by self and classmates makes the child feel better about self. It can help the child build self esteem. During cooperative learning, group members are often asked to rate the positive social behavior of other members like helping and encouraging. A word of caution, the teacher needs to take care so that self and peer assessment neither become a tool of excessive praise nor undue criticism for any child.

Thus CCE means: students will be evaluated on a round –the-year basis instead of being tested in through a year-end only exam. Giving every child an opportunity to experience success and enjoy learning. Look for variety of abilities that a child is good at and also help the child by

supporting her/him to fill the gaps in learning through many and varied informal assessments.