SAMPLE EXAMPLES OF ‘TASK ANALYSIS’ OF SECONDARY CURRICULUM

PROCEDURE USED IN THE TASK ANALYSIS:

Task analysis is the ordering, in sequence, of learner behaviors necessary to meet an objective & state them as tasks to be performed by teacher. The task analysis reveals the following that helped the investigator to identify the Competencies of an EE teacher:

- Identify the probable environmental dimensions that can be infused in the topic that is to be taught. (Content Competencies)
- Identify the suitable techniques that can be used to infuse these dimensions. (Pedagogical Competencies)

Here are few illustrations:

Note: The objectives stated in **bold italics** represent the objectives deliberately stated to facilitate infuse of EE component in regular teaching.

1. Subject: LIFE SCIENCE
   
   Class: X  
   Unit: Food Production & Management
   Topic: Food Management

   The task of the secondary teacher is to make the students able to
   
   1. Explain the meaning of food management
   2. **Reason out the need for food management**
   3 **Identify the adverse affects of increasing population on food management**
   4. Schematically represent the spoilage and wastage during the various stages from producer to consumer.
   5. **Explore the correlation between ‘the amount of spoilage and wastage’ and the ‘increase in population’**.
   6. Explain the significance of using appropriate storage methods.
7. Explain the meaning of food processing.

8. *Reason out the need for processing food in different forms (shortage of food resources)*

The performance of the above said tasks demands the following competencies on the part of the teacher:

<table>
<thead>
<tr>
<th>Task no.</th>
<th>Competencies expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Organize Brain storming session</td>
</tr>
<tr>
<td>3.</td>
<td>Organize Role play/story narration/nature game/compose &amp; recite poem (less forest area and more human population)</td>
</tr>
<tr>
<td>5.</td>
<td>Use problem solving approach/prepare poster</td>
</tr>
<tr>
<td>8.</td>
<td>Organize Role-play/prepare poster or learning aids</td>
</tr>
</tbody>
</table>

2. Subject: **SCIENCE**  
   Class: X  
   **Unit: Nuclear Energy**  
   **Topic: Radiation Hazards**

The tasks of the teachers are to make the students able to:

1. Identify the different rays that are emitted during radiation  
2. Explain the harmful effects of UV rays emitted out during radiation  
3. *Identify that Sun emits UV rays*  
4. *Explore that UV rays are obstructed from entering earth surface.*  
5. Explain the harmful effects of different rays emitted during radiation  
6. Identify that radiation from nuclear installations affect environment adversely.  
7. *Explore the dangerous effect of Nuclear Wastes if not treated properly*  
8. *Suggest the steps to be taken by different nations in order to reduce the nuclear radiation.*

The performance of the above said tasks demands the following competencies on the part of the teacher:
<table>
<thead>
<tr>
<th>Task no.</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Exhibit video clipping/lecture</td>
</tr>
<tr>
<td>4.</td>
<td>Organize Role play/story narration using video clipping/nature game/compose &amp; recite poem</td>
</tr>
<tr>
<td>7.</td>
<td>Organize Role play/story narration using video clipping/nature game/compose &amp; recite poem</td>
</tr>
<tr>
<td>8.</td>
<td>Brain storming</td>
</tr>
</tbody>
</table>

3. Subject: Social science  
   Class: IX  
   Unit: Modern Age Begins in Europe  
   Topic: Effects of Renaissance

The tasks of the teachers is to make the students able
1. Explain the meaning of renaissance
2. Mention the different effects of renaissance
3. Identify how the scientific discoveries made the industrial revolution possible
4. Explore the adverse effects of rapid industrialization
5. Explain the changed attitude of people to think in favour of present life & human interest
6. Identify the different human activities that adversely affect the environment

The performance of the above said tasks demands the following competencies on the part of the teacher:

<table>
<thead>
<tr>
<th>Task no.</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Story narration</td>
</tr>
<tr>
<td>4.</td>
<td>Brain storming</td>
</tr>
<tr>
<td>5.</td>
<td>Compose poem on greedy man</td>
</tr>
<tr>
<td>6.</td>
<td>Brain storming/role play</td>
</tr>
</tbody>
</table>
APPENDIX NO.-2

DEMONSTRATION LESSONS BY SECONDARY TEACHERS

ROLE PLAYING – A Technique used successfully to transact EE

Posters can do miracles - self-made posters can be objective-based.
Waste materials can be used successfully to transact EE

Nature game is not a simple game played but goes a long way to clarify the whole philosophy behind the transaction
Students can benefit a lot from Scrap books and Albums related to Environment.

Using real objects and specimen make the transaction effective.
Dear teachers,

Below given is the list of competencies for an EE teacher. Kindly furnish your opinion based on your rich experience in the field of teaching at secondary level, regarding the essentiality, & need for training of the listed competencies.

<table>
<thead>
<tr>
<th>SL No.</th>
<th>Competencies</th>
<th>Is it essential for secondary teachers?</th>
<th>Are you competent in it?</th>
<th>Would you need training in it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Writing Lesson Plans to infuse environmental dimension.</td>
<td></td>
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<tr>
<td>2.</td>
<td>Identify the infusion spots in the secondary curriculum.</td>
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<td></td>
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<tr>
<td>3.</td>
<td>Select/&amp; design suitable learning experiences catering to different modes of instruction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Use problem solving approach</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td>Recite/compose environmental poems.</td>
<td></td>
<td></td>
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<tr>
<td>7.</td>
<td>Use questioning technique</td>
<td></td>
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<tr>
<td>8.</td>
<td>Organize role-play.</td>
<td></td>
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<td>9.</td>
<td>Ask open-ended questions</td>
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<td>10.</td>
<td>Hold meaningful discussion</td>
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<tr>
<td>11.</td>
<td>Use appropriate Analogies</td>
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<td>12.</td>
<td>Arrange nature walk/games.</td>
<td></td>
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<tr>
<td>13.</td>
<td>Organize brain-storming session</td>
<td></td>
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<tr>
<td>14.</td>
<td>Organize environmental field trips/visits.</td>
<td></td>
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<tr>
<td>15.</td>
<td>Prepare additional resource materials such as scrapbook and albums.</td>
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<tr>
<td>16.</td>
<td>Think critically</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>17.</td>
<td>Execute environmental action projects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Select appropriate tools to evaluate achievements in EE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Construct tools to evaluate achievements in EE</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>20.</td>
<td>Evaluate students’ achievement in EE.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
APPENDIX NO-4

TRAINING BY RESOURCE PERSONS

THIS IS HOW FOOD WEB GAME IS PLAYED!

SHARING OF INFORMATION THROUGHOUT THE NATURE WALK
HOLDING DE-BRIEFING SESSION
ENVIROMENTNAL KNOWLEDGE TEST (EKT)

Name of the pre-service teacher:

Instructions: Each item is followed by 4 alternatives, out of which only one is the correct answer. Select the correct answer and put the ‘\(\checkmark\)’ indicating the correct answer.

1) Adaptation means
   i) Adjustment to environment(\(\checkmark\))
   ii) Alterations in environment
   iii) Manipulation of environment
   iv) Changing of environment

2) Which one of the following cannot be recycled?
   i) Paper
   ii) Glass
   iii) Plastic
   iv) Petrol(\(\checkmark\))

3) Sustainable development implies
   i) Conservation and development can be mutually reinforcing
   ii) Some portions of the earth should be set aside as untouchable resource
   iii) Meeting the needs of the present generation without compromising the ability to meet future needs(\(\checkmark\))
   iv) Use of only renewable resources

4) When mercury is dumped in rivers and oceans as a waste product of certain industries, it becomes a problem because mercury is
   i) Expensive
   ii) Heavy metal
   iii) Insoluble in water
   iv) Toxic in nature(\(\checkmark\))

5) The atmosphere is becoming warmer and warmer because of the increase in
   i) Oxygen
   ii) Nitric oxide
   iii) Carbon dioxide(\(\checkmark\))
   iv) Hydrogen
6) The burning of fossil fuels for electricity generation and heating systems emits gases and results in
   i) Soil erosion and desertification
   ii) Water pollution and soil erosion
   iii) Global warming and acid rains (✓)
   iv) Air pollution and soil erosion

7) Biodiversity refers to the variety of
   i) Life forms (✓)
   ii) Human races
   iii) Plant species
   iv) Animal species

8) Soil erosion can be prevented by
   i) Constructing dams
   ii) Piling stones
   iii) Planting trees (✓)
   iv) Building houses

9) Afforestation means
   i) Cutting of forests
   ii) Tree plantation (✓)
   iii) Clearing lands for cultivation
   iv) Creating barren land

10) Looking after or natural resources and protecting them from damage is known as
    i) Protection
    ii) Development
    iii) Sustenance
    iv) Conservation (✓)

11) The solar energy is
    i) Limited
    ii) Exhaustible
    iii) Non-exhaustible (✓)
    iv) Non-renewable

12) Plants should be nurtured and protected because they give out
    i) Carbon dioxide
    ii) Nitrogen
    iii) Hydrogen
    iv) Oxygen (✓)
13) Ullas Karanth is associated with a project under which the animal saved is
   i) Crocodile
   ii) Elephant
   iii) Lion
   iv) Tiger (√)

14) Fossil fuels are
   i) Non-renewable (√)
   ii) Renewable
   iii) Storable
   iv) Non-storable

15) Hydroelectric power station generate electricity using the energy of
   i) Flowing water
   ii) Underground water
   iii) Water fall (√)
   iv) Sea waves

16) Which one of the following methods will best decrease noise level?
   i) Control noise at source (√)
   ii) Intercept noise in between
   iii) Reduce sound at the receiver
   iv) Pass laws to reduce noise

17) Un disposed garbage affects
   i) Beautification of the city
   ii) Health of the masses (√)
   iii) Cleanliness of the surroundings
   iv) Soil quality in that area

18) Waste thrown into water bodies kills fishes in them, because it
   i) Adds carbon dioxide to water
   ii) Gives off a bad smell
   iii) Removes the food particles in water
   iv) Uses up oxygen needed by them (√)

19) Which of the following acts provides for stringent measures to check hazardous pollution?
   i) The Air Act, 1987
   ii) The Environmental Act, 1986 (√)
   iii) The Water Act, 1974
   iv) The Factories Act, 1948
20) 'Project Tiger' was launched in
   i) April 1972
   ii) April 1973 (✓)
   iii) June 1972
   iv) June 1973

21) The renewable resource are mostly powered by
   i) Sun (✓)
   ii) Man
   iii) Machine
   iv) Nature

22) The deciding factors of soil erosion are
   i) Composition of soil
   ii) Speed of wind and water (✓)
   iii) Dust particles
   iv) Wind and water
   v) Lack of nutrients in the soil

23) There is a terrific fall in ground water level. One of the reasons could be,
   i) Non-availability of other water resources (✓)
   ii) Collection of rain water before it reaches ground
   iii) Buildings absorb most of the rain water
   iv) Trees obstruct the percolation of water

24) Which among the following is a fact about rain water harvesting?
   i) Induces rains
   ii) Solves only agricultural problems
   iii) Helps preserve rain water (✓)
   iv) Helps getting artificial rains

25) Thermal pollution
   i) is the harmful energy from the nucleus atom
   ii) has no impact on the aquatic life
   iii) is due to the heated discharges (✓)
   iv) does not influence the temperature of a region

26) Ozone depleting substances can also create
   i) Shortage of water resources
   ii) Formidable global warming (✓)
   iii) Respiratory problems
   iv) Shortage of food resources
27) Which among the following is a non-commercial traditional energy?
   i) Coal
   ii) Gas
   iii) Animal waste(✓)
   iv) Nuclear energy

28) Which among the following represents the major ecosystem?
   i) Forest
   ii) Pond
   iii) Desert ecosystem
   iv) Aquatic(✓)

29) An example for alternative source of energy
   i) Electricity
   ii) Petroleum
   iii) Solar(✓)
   iv) Coal

30) The presence of water hyacinth in a pond is an indicator of
   i) Good quality of water
   ii) Breeding period of insects
   iii) Polluted water(✓)
   iv) Breeding period of birds

Note: The correct responses are provided using (✓) for each item.
ENVIRONMENTAL AWARENESS TEST (EAT)

Name of the Pre-service teacher:

Instructions: Each item is followed by 4 alternatives, out of which only one is the correct answer. Select the correct answer and put the ‘✓’ indicating the correct answer.

1) In order to conserve natural resources, we should
   i) Not use natural resources
   ii) Use natural resources wisely (✓)
   iii) Restore natural resources
   iv) Replace worn out resources

2) The depletion of Ozone layer and the green house effect is caused by
   i) Atomic explosion
   ii) Excessive military operations
   iii) Too much toxic waste in the atmosphere (✓)
   iv) Launching of too many satellites

3) Meda Patekar is a well known
   i) Cine star
   ii) Politician
   iii) Social worker
   iv) Environmentalist (✓)

4) The Government of India has taken up the task of purifying the river
   i) Jamuna
   ii) Thungabhadra
   iii) Gnaga (✓)
   iv) Narmada

5) The Kerala Forum initiative against destruction of the natural resources is called
   i) Chipko movement
   ii) Narmada Andolana
   iii) Silent Valley Project (✓)
   iv) Gang Cleaning Project

6) Use of fire crackers on different occasions contributes to
   i) Noise and air pollution (✓)
   ii) Air and water pollution
   iii) Noise and industrial pollution
   iv) Water and noise pollution
7) Use of solar ovens
   i) Increases environmental pollution
   ii) Decreases environmental pollution (√)
   iii) Increases demand for solar energy
   iv) Increases demand for solar ovens

8) Fuels should not be wasted because they are
   i) Very expensive
   ii) Limited and valuable (√)
   iii) Foul smelling, when spilled
   iv) Dangerous, when burnt

9) The resistance by women to the cutting of forest in Himalayan regions is known as
   i) Silen Valley
   ii) Vimochana
   iii) Jagrithi movement
   iv) Chipko movement (√)

10) In which of the following places, over 2000 people were killed when a vaporized cloud of gas exploded from the plant?
    i) Mumbai
    ii) Calcutta
    iii) Bhopal (√)
    iv) Chennai

11) Ulsoor lake was in focus recently for
    i) Water pollution
    ii) Desilting (√)
    iii) Suicide
    iv) Beautification

12) Water pollution in Bangalore is checked by
    i) Bangalore Water Supply and Sewerage Board
    ii) Karnataka State Pollution Control Board (√)
    iii) Jalasamvardhaka Sangha
    iv) Watershed and Drought Control Board

13) The wildlife park which Karnataka intends to turn into a night sanctuary is
    i) Bandipur
    ii) Kudremukh
    iii) Banerghatta (√)
    iv) Dandeli
14) World Environment Day is celebrated every year on
   i) June 5 (√)
   ii) January 5
   iii) June 15
   iv) January 15

15) The method which is relatively safer for disposal of paper waste is
   i) Burning
   ii) Dumping
   iii) Incineration (√)
   iv) Recycling

16) Which of the following measures is currently being taken to minimize air pollution due to vehicle population?
   i) Decreasing the number of vehicles
   ii) Enforcing automobile emission standard (√)
   iii) Improving the quality of petrol and diesel
   iv) Discouraging people from buying vehicles

17) Conservation of wild life is possible by
   i) Increasing the forest area
   ii) Increasing the protected area
   iii) Enforcing strict legislation
   iv) Developing environmental awareness (√)

18) The act which provides for laying down procedures for handling of hazardous substance is
   i) The Environment Act, 1986 (√)
   ii) The Air (pollution and Control) Act, 1987
   iii) The water (Pollution and Control) act, 1988

19) Canned food is to be avoided as it
   i) Contains more multi-minerals
   ii) Contains harmful preservatives (√)
   iii) Would be manufactured long ago
   iv) Would have gone stale

20) Natural resources are exhausted faster because of
   i) Industrialization
   ii) Deforestation
   iii) Over population (√)
   iv) Degeneration
21) Project Tiger is
   i) Centrally sponsored scheme
   ii) Extension of Wild life Protection Scheme (√)
   iii) State sponsored scheme
   iv) Scheme organized by NGO’s

22) Which among the following is a constraint to sustainability?
   i) Population explosion (√)
   ii) Afforestation
   iii) Planning human intervention
   iv) Increased literacy rates

23) Which one of the following is an anti-environment activity?
   i) Using public transportation frequently
   ii) Throwing the garbage around the bin (√)
   iii) Maintaining minimum audible voice
   iv) Using cycles or choosing to walk for short distances

24) Which of the following is the direct effect of global warming?
   i) Obstruction of the entry of light rays into earth
   ii) The partial melting of ice caps (√)
   iii) Impairment of life on earth
   iv) Stripping off nutrients from the soil

25) ‘Down to earth’ is a
   i) ‘Science and environment’ fortnightly (√)
   ii) Newsletter of the environment
   iii) Bimonthly magazine
   iv) Monthly news and feature service

26) Loss of biodiversity may be due to
   i) Ecological restoration activities
   ii) Soil pollution (√)
   iii) Reduced infant mortality
   iv) Green revolution

27) DDT was introduced in India as a
   i) Catalyst
   ii) pesticide (√)
   iii) fertilizer
   iv) extinguisher
28) The fresh and usable water from all available sources in the world is just
   i) 3%
   ii) 1%
   iii) 1\%\\%
   iv) Less than 1 \%(\checkmark)

29) The responsibility of pollution control board is to
   i) Implement acts concerning restriction of pollution(\checkmark)
   ii) Punish the industry/institution that pollutes
   iii) Measure the amount of pollution frequently
   iv) Maintain statistical records related to pollution

30) Which of the following is known as 'mega diversity'?
   i) Pakistan
   ii) Holland
   iii) Denmark
   iv) India (\checkmark)

31) There is protest against implementation of Kaiga atomic power plant because it is
   i) Considered as a political issue
   ii) Hazardous to our environment(\checkmark)
   iii) Multinational company collaboration
   iv) Demands high rates for its power

Note: The correct responses are provided using (\checkmark) for each item.
ENVIRONMENTAL ACTION BEHAVIOUR TEST (EABT)

NAME OF THE PRE-SERVICE TEACHER:

INSTRUCTIONS: Different situations regarding environmental issues are given below. Each situation is followed by 4 kinds of responses. Select the response which you would prefer and write the corresponding alphabet in the space given on the left side of the item.

1) Anoop has let the water running while brushing his teeth and you are passing by, what would you do?
   i) Complain to elders in the house (1)
   ii) Tell his friends and tease him (0)
   iii) Stop the running water (3)
   iv) Ask him to stop the water (2)

2) Your neighbour Tam is trying to cut the trees in front of his house. How would you react?
   i) Keep quiet as he is felling the trees in front of his house and not yours (0)
   ii) Complain to the Forest Department (1)
   iii) Raise the issue in the neighborhood association (2)
   iv) Explain the use of having trees and request him to not to cut them (3)

3) There is a slum located near your house and your servant lives there. She often falls sick. What would be your advice to her?
   i) Drink boiled water (3)
   ii) Eat lot of food (2)
   iii) Take lot of rest (0)
   iv) Do regular exercises (1)

4) You had been for a picnic to Bannerghatta National Part with your friends. After having the food there, how would you dispose off the waste?
   i) Just leave it there (0)
   ii) Throw at a distance (1)
   iii) Put into a dustbin (3)
   iv) Pile up near bush (2)

5) I and my friends went on a camping trip to Bandipur tiger reserve. We had a Camp fire in the night. After the Camp fire, I would-
   i) Extinguish the Camp fire completely with water and sand (3)
   ii) Assume that it would extinguish by itself and leave the place (0)
   iii) Tell my friends to extinguish the fire before leaving the place (2)
   iv) Tell the camp officer about the un-extinguished fire and go (1)
6) Rajanna wants to build a house and has come to you regarding suggestions. What eco-sustainable suggestion would you give him?
   i) Make provision for solar energy( 3)
   ii) Keep long and wide windows( 2)
   iii) Build big spacious rooms( 1)
   iv) Dig bore well for water( 0)

7) The Government of Karnataka has said that whoever builds a house now should provide for rain water harvesting. What would be your reaction as a builder?
   i) Protest( 0)
   ii) Approve( 2)
   iii) Neglect( 1)
   iv) Implement( 3)

8) Jaya visited the zoo recently and noticed that an animal needs medical care, but the person in charge was not bothered. What should Jaya do?
   i) Give money to the worker and get it done( 1)
   ii) Bring this to the notice of the Zoo authorities( 2)
   iii) See that doctor comes and treats the animal( 3)
   iv) Write an article to the newspaper regarding this( 0)

9) After offering pooja to Ganesha on the festival day, the idol of Ganesha is to be immersed in water. Where would you immerse it?
   i) In your neighbor’s well( 1)
   ii) In a pond in your area( 2)
   iii) In a river flowing on the outskirts( 0)
   iv) In a bucket of water at home( 3)

10) Your son’s car has a musical horn which he honks loudly for five minutes whenever he comes in and goes. How would you react to this action?
    i) Keep the car away from him( 2)
    ii) Don’t give money for the petrol( 1)
    iii) Change the horn of the car( 3)
    iv) Not bothered about it( 0)

11) You have noticed that your friend Ajay has fallen into the trap of drugs. How would you help him?
    i) Inform his father to take action( 2)
    ii) Tell your teacher to advise him( 1)
    iii) Advise him and take to a counselor( 3)
    iv) Chase the drug peddlers away( 0)
12) Ashik has shifted to a new apartment with all the facilities for a comfortable stay. But, he misses his garden very much. What would you suggest him?
   i) Have a wall paper of a garden in the living room ( 1 )
   ii) Keep plastic plants inside the house ( 2 )
   iii) Make a beautiful album with garden pictures ( 2 )
   iv) Make provision to grow plants on the terrace ( 3 )

13) While traveling in a bus, you see a person smoking a cigar in the bus. What would be your reaction to him?
   i) Do not bother about his act ( 1 )
   ii) Convince him to throw away the cigar ( 3 )
   iii) Join him in smoking a cigar ( 0 )
   iv) Remind him of prohibition of smoking ( 2 )

14) While driving from Bangalore to Mysore, you noticed a factory’s effluent being let into Vrishabavathi river. What will you do?
   i) Drive on as it is not your problem ( 1 )
   ii) Write a letter to the concerned authority ( 0 )
   iii) Scold the factory owner for this kind of act ( 2 )
   iv) Hold demonstrations against the factory ( 3 )

15) If you happen to see an illegal quarrying being carried out in nearby hills, what would you do?
   i) Inform that person not to do it ( 1 )
   ii) Go ahead without bothering about it ( 0 )
   iii) see that action is taken against that person ( 2 )
   iv) Inform the concerned authorities about that person ( 3 )

16) Radha’s neighbour Ameena already has six girl children and wants to have a baby boy. What should Radha do?
   i) Ask Ameena to go to the doctor ( 1 )
   ii) Take Ameena to the doctor for sterilization ( 3 )
   iii) Do not bother as it is not her problem ( 0 )
   iv) Advise Ameena about the hazards ( 2 )

17) Your friend Vinay takes his scooter even to nearby destinations. Being a responsible citizen how would you react to this action?
   i) Tell his parents to advise him not to do so ( 2 )
   ii) Convince him to minimize the use of scooter ( 3 )
   iii) Scold him for wasting the petrol unnecessarily ( 1 )
   iv) Do not bother as it is not your scooter ( 0 )
18) A farmer informs you that soil in the paddy field is getting degraded. What do you suggest to the farmer?
   i) To stop over cultivation in the field (3)
   ii) To start planting trees around the field (2)
   iii) To use stronger fertilizers (0)
   iv) To replace the degraded soil (1)

19) Leela observed her neighbour letting the cattle stray into the road everyday. How would Leela react to his?
   i) Chase it with stones and move ahead (1)
   ii) Convince the neighbour not to do so (3)
   iii) Scold the neighbour for doing so (2)
   iv) Make a complaint to the corporation (0)

20) There is a need to reduce greenhouse gases leading to global warming. As an enlightened citizen, how do you contribute to meet this need?
   i) Write an article about it (1)
   ii) Minimize the use of vehicles (3)
   iii) Stop burning of fossil fuels (2)
   iv) Think it is not my responsibility (0)

21) On your sister's wedding the orchestra party increases the sound system unnecessarily and you are aware of the nearby hospital. Your immediate action will be,
   i) Feel sorry for the disturbance to the hospital (1)
   ii) Tell your father to take immediate action (2)
   iii) Request the orchestra party to minimize the sound (3)
   iv) Enjoy the orchestra without any botheration (0)

22) On a sunny afternoon, imagine that you are riding a two-wheeler near a circle. To take a right turn, you would,
   i) Turn right, across the circle (3)
   ii) Take sharp right turn (0)
   iii) Turn right, across the circle only in the presence of a police (2)
   iv) Take sharp right turn only in the absence of police around (1)

23) For an economical use of gas stove, the step you would follow,
   i) Set the ingredients ready in advance and put on the stove (3)
   ii) Set the ingredients immediately after you put on the stove (2)
   iii) Keep the flame increased always while in use (1)
   iv) Put on the stove and then go in search of the container for use (0)
24) Imagine you visit Zoo along with your friends what would you do to gain maximum entertainment from your visit?
   i) Tease every animal and irritate them (0)
   ii) Please the animals by giving eatables (2)
   iii) Observe the unique behaviour of individual animal (3)
   iv) Enjoy jokes with your friends and keep moving (1)

25) Your relative has 2 children one boy and another girl. He wants to send only his son to school and not his daughter. What is your suggestion to him?
   i) To do as he feels (0)
   ii) To read articles on female literacy (2)
   iii) To send daughter also to school (3)
   iv) To teach the daughter at home itself (1)

26) Suppose you are riding, the moment you see the red signal light, your immediate action
   i) Stop the vehicle on the spot (2)
   ii) Stop and put off the engine (3)
   iii) Move without stopping (0)
   iv) Imitate other’s action (1)

27) Imagine your Aunt’s mixer is creating unpleasant sound whenever used. What would you suggest?
   i) Throw it and buy a new one (2)
   ii) Not to use it in future (1)
   iii) Bear with the sound patiently (0)
   iv) Keep a mat under it (3)

28) A newspaper article writes on how certain reputed companies use the ‘huge rocks’ for promoting their products. What is your reaction for this information?
   i) Admire for making the best use of rocks (1)
   ii) Suggest better alternatives for promoting products (2)
   iii) Neglect the information as unimportant (0)
   iv) Feel that the act has hazardous effect on the nature (3)

29) Fishes are dieing in a pond nearby your house. What would you do?
   i) Neglect the issue as it is not my concern (0)
   ii) Write an article regarding this issue (2)
   iii) Take personal risk to find cause and try to set it right (3)
   iv) Blame the public for polluting it (1)
30) When you plan to go out for shopping which of the following decisions would you be making to accommodate for the things purchased?
Buy a new cloth bag in the city (1)
Reuse a plastic bag (2)
Take a cloth bag with you (3)
Demand the shopkeeper for a plastic carry bag (0)

Note: The correct Weightage of each option is provided in the brackets
Appendix-5

TOOLS TO ASSESS IDENTIFIED COMPETENCIES

EVALUATION OF INDOOR COMPETENCIES:

IC.1. COMPETENCE TO 'IDENTIFY THE INFUSION SPOTS IN SECONDARY CURRICULUM':

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Content is analyzed in terms of its major concepts to be taught</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>2</td>
<td>The plug point for infusion of Environmental dimension is identified in the major concepts.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>3</td>
<td>Suitable Environmental dimension for infusion under each plug point is selected.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
</tbody>
</table>

IC.2. ORGANIZING ROLE PLAY

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proper plug point is selected</td>
<td>Y/N</td>
</tr>
<tr>
<td>2</td>
<td>Characters chosen are relevant</td>
<td>Y/N</td>
</tr>
<tr>
<td>3</td>
<td>Characters chosen are sufficient</td>
<td>Y/N</td>
</tr>
<tr>
<td>4</td>
<td>Environment related information is provided</td>
<td>Y/N</td>
</tr>
<tr>
<td>5</td>
<td>Conversations imply environmental concern</td>
<td>Y/N</td>
</tr>
<tr>
<td>6</td>
<td>Time does no exceed 15 minutes</td>
<td>Y/N</td>
</tr>
</tbody>
</table>
### IC.3. POEM RECITATION:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Language used is simple</td>
<td>YES</td>
</tr>
<tr>
<td>2</td>
<td>Consists only 5 lines</td>
<td>YES</td>
</tr>
<tr>
<td>3</td>
<td>First line has one word that is a noun</td>
<td>YES</td>
</tr>
<tr>
<td>4</td>
<td>Second line has two words which are adjectives</td>
<td>YES</td>
</tr>
<tr>
<td>5</td>
<td>Third line has 3 verbs</td>
<td>YES</td>
</tr>
<tr>
<td>6</td>
<td>Fourth line has 4 words that tell one’s opinion</td>
<td>YES</td>
</tr>
<tr>
<td>7</td>
<td>Fifth line has one word that is a synonym of the noun.</td>
<td>YES</td>
</tr>
<tr>
<td>8</td>
<td>Only one environmental theme is selected</td>
<td>YES</td>
</tr>
<tr>
<td>9</td>
<td>Environment related information is provided</td>
<td>YES</td>
</tr>
<tr>
<td>10</td>
<td>Words/phrases used are relevant to the theme</td>
<td>TO A GREAT EXTENT</td>
</tr>
<tr>
<td>11</td>
<td>Recites clearly</td>
<td>TO A GREAT EXTENT</td>
</tr>
<tr>
<td>12</td>
<td>Recites emphatically to express any special feature</td>
<td>TO A GREAT EXTENT</td>
</tr>
</tbody>
</table>

### IC.4. NARRATING STORIES:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental theme is identified</td>
<td>YES</td>
</tr>
<tr>
<td>2</td>
<td>Irrelevant words/phrases are avoided</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td>3</td>
<td>Voice is clear without distractions</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td>4</td>
<td>Proper tonal modulation is used</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td>5</td>
<td>Language used is comprehensible</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td>6</td>
<td>Time does not exceed 10 minutes</td>
<td>YES</td>
</tr>
</tbody>
</table>
IC.5. ORGANIZING BRAIN STORING SESSION:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uses 'warm up'technique</td>
<td>YES</td>
</tr>
<tr>
<td>2</td>
<td>Environmental problem is stated clearly without ambiguity</td>
<td>GREAT EXTENT</td>
</tr>
</tbody>
</table>
| 3       | Brainstorms the session tactfully:  
          o Avoids criticizing/discussing ideas  
          o Helps in the continuous flow of ideas without censoring any  
          o Records all the ideas generated | GREAT EXTENT | SOME EXTENT | NOT AT ALL |
| 7       | Categorises/condenses/combines refines the ideas | GREAT EXTENT | SOME EXTENT | NOT AT ALL |
| 8       | Analyses the effects or results | GREAT EXTENT | SOME EXTENT | NOT AT ALL |
| 9       | Prioritize the options | GREAT EXTENT | SOME EXTENT | NOT AT ALL |
## TOOLS TO ASSESS IDENTIFIED COMPETENCIES

### ASSESSMENT OF OUTDOOR COMPETENCIES:

**OD1. ORGANIZING NATURE WALK:**

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
</table>
| 1      | LOCATION  
Has vegetation around it  
Frequented by insects, birds etc | YES     | NO      |
| 2      | REPORT  
1. Lists the different objectives  
2. Provides details about the location selected  
3. Indicates ‘instructions’ provided to students about  
  - Their behaviour  
  - Things to be observed  
  - Things to be recorded  
  - Things to be carried with them  
4. Gives description of the activities performed  
5. Indicates the outcome of activities undertaken  
6. Indicates flow of information related to environment  
7. Involves the highlights of debriefing session | YES     | NO      |
**OD2. ORGANIZING NATURE GAME:**

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specifies the name of the game</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Specifies the objectives</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>Provides the list of materials required</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>Provides the background knowledge needed</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>5</td>
<td>Provides the list of instructions needed for gaming</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>6</td>
<td>Gives brief description of the performance of students in the game</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>7</td>
<td>Indicates linkage between the game experience with the hidden environmental theme</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>8</td>
<td>Provides the highlights of debriefing session</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
</tbody>
</table>
### 1. ASSESSMENT OF ‘MAKING ENVIRONMENTAL PRO-DECISIONS’

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Desirable Components</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Identifies the issue in the given situation</td>
<td>Accurately</td>
</tr>
<tr>
<td>2.</td>
<td>Specifies the different options at his/her disposal clearly</td>
<td>Accurately</td>
</tr>
<tr>
<td>3.</td>
<td>Knows the consequences of each option:</td>
<td>Accurately</td>
</tr>
<tr>
<td></td>
<td>- Predicts what may happen as the consequence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Analyses the reasons as to why it happens</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Explores the environmental significance of what has happened.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Decides the best option out of the different options at his/her disposal.</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### 2. ASSESSMENT OF ‘EXECUTION OF ACTION PROJECTS’:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Statement of the problem is clear</td>
<td>To a great extent</td>
</tr>
<tr>
<td>2</td>
<td>The problem is related to Environment</td>
<td>To a great extent</td>
</tr>
<tr>
<td>3</td>
<td>Objectives formulated are relevant</td>
<td>To a great extent</td>
</tr>
<tr>
<td>4</td>
<td>The statement of the problem directs the action to be performed</td>
<td>To a great extent</td>
</tr>
<tr>
<td>5</td>
<td>Means &amp; Sources of collecting data are suggested.</td>
<td>To a great extent</td>
</tr>
<tr>
<td>6</td>
<td>A procedure of compiling the data is followed.</td>
<td>To a great extent</td>
</tr>
<tr>
<td>7</td>
<td>Collected data is analysed &amp; interpreted.</td>
<td>To a great extent</td>
</tr>
<tr>
<td>8</td>
<td>The outcome of the project synchronizes with the objectives</td>
<td>To a great extent</td>
</tr>
<tr>
<td>9</td>
<td>The report is concluded with implications/suggestions.</td>
<td>To a great extent</td>
</tr>
</tbody>
</table>
1. ASSESSMENT OF COMPETENCY ‘PREPARING ENVIRONMENTAL POSTERS’:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Most of them</td>
</tr>
<tr>
<td>1</td>
<td>Visual are: in focus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Originality in the arrangement of visuals</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Appearance:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Catchy/attractive in terms of design, layout &amp; neatness</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td>o Bold</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Colourful</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Visuals are Indirectly or directly Relevant to an environmental theme</td>
<td>Most of them</td>
</tr>
<tr>
<td>5</td>
<td>Caption and visual message convey a single idea:</td>
<td>To a great extent</td>
</tr>
</tbody>
</table>

2. ASSESSMENT OF ‘PREPARATION OF LEARNING AIDS’:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PRODUCT IS:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Colourful</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>• Proportionately structured</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>• Appropriate size</td>
<td>YES</td>
</tr>
<tr>
<td>2</td>
<td>PRODUCT:</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>Relates to environmental idea/theme</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Gives clear picture of the theme/idea</td>
<td>YES</td>
</tr>
<tr>
<td>4</td>
<td>Has the potential to complement the related theory</td>
<td>YES</td>
</tr>
<tr>
<td>5</td>
<td>Usable for class room teaching</td>
<td>YES</td>
</tr>
</tbody>
</table>
3. ASSESSMENT OF ENVIRONMENTAL SCRAP BOOK:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Materials indicate a single environmental theme</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>Sources of the collected materials</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td></td>
<td>Exhibit variety</td>
<td>SOME EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td>3</td>
<td>Materials are arranged systematically</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOME EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td>4</td>
<td>Serve as a reference/supplementary</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
</tbody>
</table>

4. ASSESSMENT OF THE COMPETENCE ‘PREPARING ENVIRONMENTAL ALBUM’

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visuals are compiled to form an album</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>VISUALS,</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>1. Together represent a single environmental theme</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>2. Individually relevant to the theme</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>3. Exhibit variety (with regard to different sources)</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOME EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td></td>
<td>4. Have orderly arrangement</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOME EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
</tr>
<tr>
<td>3</td>
<td>Useful in class room teaching.</td>
<td>GREAT EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SOME EXTENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOT AT ALL</td>
</tr>
</tbody>
</table>
## APPENDIX-9

### TOOLS TO ASSESS ‘CONSTRUCTING EVALUATION TOOLS’

#### 1. PREPARING QUESTIONNAIRE (Open type)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Desirable Components</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Question items relate to Environment</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>2.</td>
<td>All questions circle round a single environmental theme.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To a considerable extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>3.</td>
<td>Structure of question items:</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td>o simple</td>
<td>To a considerable extent</td>
</tr>
<tr>
<td></td>
<td>o meaningful</td>
<td>Not at all</td>
</tr>
<tr>
<td></td>
<td>o Concise</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Question items demand opinion/suggestion/comments/different perspective from the student</td>
<td>To a greater extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To a considerable extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
</tbody>
</table>

#### 2. PREPARING CHECK LISTS:

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>Desirable Components</th>
<th>ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Statements are relevant to the environmental theme.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>2.</td>
<td>Statements represent series of behavior that is environmental friendly.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>3.</td>
<td>Statements are presented in the order in which they are expected to occur.</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
<tr>
<td>4.</td>
<td>Stated behaviour is observable by the teacher</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To some extent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all</td>
</tr>
</tbody>
</table>
3. PREPARING RATING SCALES:

<table>
<thead>
<tr>
<th>SL. NO</th>
<th>Desirable Components</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Characteristic components are clearly defined.</td>
<td>To a great extent</td>
</tr>
<tr>
<td>2.</td>
<td>Characteristic components:</td>
<td>To a great extent</td>
</tr>
<tr>
<td></td>
<td>o Environmentally significant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Represent behaviour that occurs in schools</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Clearly visible for observation</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Rating items indicate the probable learning outcomes</td>
<td>To a great extent</td>
</tr>
<tr>
<td>4.</td>
<td>Phrases used in the Rating Items are clear.</td>
<td>To a great extent</td>
</tr>
</tbody>
</table>
lesson plan using enquiry approach.

Subject: Life Science.
Class: IX

UNIT: Microorganisms.

- Kind of microbe
  - Structure of different microbes
    - Microbial diseases
      - Disease spread through air, water, soil
- Useful microorganisms
  - Convert the soil into fertile soil
    - Microorganisms as eco-balancers by the act of decomposition.

Topic: Useful microorganisms.

Inquiry spot: (ii)

Environment related objective(s):
Students will be able to:

- Identify that microorganisms help in natural recycling by the act of decomposition.

Strategy: Brainstorm - story.
Your 30x40' site can accommodate a reasonable size of house and a tiny garden. Your father wants to utilize the whole area for construction. What do you suggest?

- What is the main issue in the action behaviour about which you have to take a decision?

  To make provision for a small garden.

- What options are available to you?

  i) Accommodate for a small garden.
  ii) No accommodate for any garden.
What are the probable consequences of each option if considered?

The probable consequences of option (a): Accommodate for a small garden.

<table>
<thead>
<tr>
<th>What may happen</th>
<th>Why is it likely</th>
<th>It's relative importance in terms of the impact on environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease the size of rooms in the house, make us feel congested.</td>
<td>Naturally 30x40' site cannot accommodate for a house with big rooms along with a garden.</td>
<td>Personal inconvenience (-)</td>
</tr>
<tr>
<td>People [outsiders] may comment on the size of the rooms.</td>
<td>It is a natural tendency of people to comment on everything.</td>
<td>Personal humiliation (-)</td>
</tr>
<tr>
<td>Garden beauties: breath air to the house and many birds and insects take habitat in the garden.</td>
<td>It is the fact that birds and insects need green for their food may be in terms of grains/fruit or in terms of smaller organisations, so they get attracted to the garden. Also, green absorb CO2 and purify air.</td>
<td>Eco-friendly life style [environmentally significant (+)]</td>
</tr>
</tbody>
</table>

Page 2 of 5
The probable consequences of option (b): **No accommodation for any garden.**

<table>
<thead>
<tr>
<th>What may happen</th>
<th>Why is it likely</th>
<th>It's relative importance in terms of the impact on environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase the size of rooms and makes us feel luxury.</td>
<td>It is possible to have reasonably big room when garden is not accommodated.</td>
<td>Enhanced personal satisfaction.</td>
</tr>
<tr>
<td>2. People appreciate the big rooms</td>
<td>People's tendency is to appreciate more about of 'lux' it achieved.</td>
<td>Personally feel great.</td>
</tr>
<tr>
<td>3. The house does not get proper air and during summer we may get very dry air and maintain bad health.</td>
<td>Wherever there is no green, fresh air cannot be found. Air does not get purified, thus it is unhealthy.</td>
<td>Not eco-friendly activity. [Environmentally very significant]</td>
</tr>
</tbody>
</table>

Best option: (1)
పోషన్స్‌లేం,
పర్యాయానం శుభమానం,
చాలాపాటం, సాధారణం, నామముందరి,
యుగానుష్ఠాపన యుగం లేదు నితినం,
ప్రతాపం మేని ని, మహీంధ్రం,
మేని మహెంద్రాం.

Reg. NO: 2
Yamuna A. M.
Questionnaire

Topic: Ecofriendly activities.

1. What do you consider as ecofriendly activities?

2. What eco-friendly activities can be performed by your family as a whole?

3. As a student what activities that benefit environment can be practised by you?

4. Do joining environmental organisations come under ecofriendly activities? How?

5. Which can be the leisure time activities which do benefit environment?
Check list

Topic: Preparation of a Haiku poem.

Y/N

1. Select an environmental theme/concept/issue for poem.
2. The poem has 5 lines.
3. The first line has a noun.
4. The words in second line are adjectives indicating qualities of the noun.
5. The words in the third line are verbs indicating function of the noun.
6. The words in the fourth line describe one's opinion about it.
7. The fifth line has only one word, which is a synonym to the word in the first line.

Could have been
Staff Writer

[Signature]
RATING SCALE

TOPIC: Demonstrate effective use of lab equipment to understand environmental concept.

1. Select proper equipment for the given theme/concept.
   - Cannot select without help
   - Inconsistent in selecting proper equipment
   - Consistently selects proper equipment

2. Sets up equipment correctly within limited time.
   - Cannot set up without help.
   - Inconsistent in setting equipment correctly.
   - Consistently sets up equipment correctly.

3. Manipulates equipment as needed during the experiment.
   - Cannot set up without help.
   - Inconsistent in setting equipment correctly.
   - Consistently sets up the equipment correctly.

4. Records accurately using appropriate device.
   - Always
   - Seldom
   - Never
APPENDIX NO-
ENVIRONMENTAL ALBUMS

1

ENVIRONMENTAL ALBUMS

2

3
REPORT ON THE EXECUTION OF ACTION PROJECTS BY PRE-SERVICE TEACHERS

1. Opinion Survey of the Awareness of Plastic Pollution


3. Testing Biodegradability of Different Substances
APPENDIX NO-

LEARNING AIDS PREPARED BY PRE-SERVICE TEACHERS (EG3) USING THERMOCOLE

Facts that should be known by students about environment can be better transacted using self-prepared learning aids. —very little water for us! Save it!

PREPARING LEARNING AIDS USING THERMOCOLE CUTTERS

Ultimate For Energy Source for the Survival of Earth
THIS IS HOW SULPHUR DIOXIDE GETS ENTERED INTO ENVIRONMENT!

HERE IS THE ACTUAL PROCESS OF THE 'OZONE DESTRUCTION PROCESS
BEST WAY TO TEACH WATER CYCLE.

BIODEGRADABILITY OF DIFFERENT SUBSTANCES!
APPENDIX NO-
ENVIRONMENTAL POSTERS PREPARED BY PRE-SERVICE TEACHERS

Combating Aids? Your Fury Fire Can Cause Pollution!

SCIENCE – BOON OR BANE?
SOME LEARNING AIDS DID NOT CLARIFY FOR WHAT PURPOSE THEY CAN BE USED
Alas! What all Have We Done?

Unlawful Way-Crime! Nature Punishes Severely!!
APPENDIX-

REPORTS OF THE OUTDOOR COMPETENCIES & ACTION PROJECT SUBMITTED BY PRE-SERVICE TEACHERS

These reports tell us: Objectives, Experiences provided & gain by students, Games played & Debriefing session

PRE-SERVICE TEACHER ORGANIZING NATURE GAME DURING THE TRANSACTION OF EE