Visits for EE

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Teaching in the classroom is what we do everyday. That forms the backbone of our efforts. But when we can combine this with visits and field trips, a whole new dimension is opened up. Teaching and learning outside the classroom provides an altogether different experience. 'Outside' the classroom does not necessarily mean going far away; nor does it always assume a trek or nature camp, although the value of these experiences is undoubtedly great. Neither do the outings need too much time or monetary resources.

Visits to zoos, gardens, parks and museums are part of school life. Yet often such visits are just picnics. Recognizing the educational opportunities offered by such visits, you as a teacher can make these 'picnics' into 'joyful learning' outings.

A wealth of learning objects and settings are available everywhere: A walk around the school ground or neighbourhood; a few hours in a city park; a visit to a local historical monument; a trip to a museum, a factory, a public office and so on. Any of these can provide rich opportunities for first-hand exposure and experiences. The challenge is to transform these into exciting, thought-provoking and educational opportunities. Properly planned, out-of-class experiences can help to enrich, vitalize and complement what is taught in the classroom. They can provide the space for the development of several skills including observation, investigation, monitoring, mapping, collecting data and analyzing it, critical thinking and problem solving.

In this unit, you will find a general framework of how to accomplish this challenging task. This unit also provides a more detailed look at some specific types of visits.

"That which can be learned in the classroom should be taught there, and that which can best be learned in the outdoors should there be taught."

L. B. Sharp, Environmental Educator
1.2
On completion of this unit, you should be able to:

- Organize visits to various sites and facilities such as zoos, parks, cultural heritage sites or a museum, in such a way that ‘joyful learning’ takes place
- Plan various activities on these visits to achieve the educational goals sought to be achieved through them

1.3 WHAT CONSTITUTES A FACILITY?
For the purpose of this Unit, we will understand a facility to be a public space in and around your village, town or city which is open to people at a minimal entry fee or sometimes free of cost. It is usually set up by the local administration with a specific purpose to provide amusement, entertainment and education to the people residing in and around the area, town or city. Such facilities could be a city lake, a park or a garden, a zoo, a nature club, a traffic park, a museum, a public library, a memorial place, a science activity centre, etc.

As a teacher, your goal should be to take your students to visit these facilities with specific educational objectives—either related directly to the curriculum or to inculcate an attitudinal or behavioural change in your students. By visiting such public places, the idea is also to expose students to what is there in and around the town in which they are living and which helps them to know that there is a world outside their school and homes.

1.4 PLANNING A VISIT
For teaching any lesson, you design a lesson plan. Similarly, it is essential to thoroughly plan any visit in order to make it a meaningful learning experience. The key to making visits successful is planning a variety of appropriate activities which will be both enjoyable and educational. It is also important not to over-stress on the educational part and maintain an informal atmosphere.

Here are the steps you can follow while planning the visit, and also some tips that could help you achieve the goals of joyful learning.

1.4.1 Setting Goals for the Visit
You, as a teacher would first need to set explicit educational goals for the visit. These may or may not be directly related to the curriculum. They may be stated in informal terms, but it is important to state these goals.
Some examples of goals:

- Through a visit to the zoo, to help children understand the concepts of ‘form and function’, classification, adaptations and predator-prey relationships
- Through a visit to the park or garden, the children will understand the biodiversity of the area
- Through a visit to the museum, the children’s appreciation of the skill of the craftsmen of the region will increase

What are some visit opportunities near your school? List them. Briefly describe one site and state the goals you will set for the visit.

1.4.2 Visit Before the Visit

A preliminary visit by you to the site is desirable so that you can find out about the facilities available and whether these would be sufficient to help you meet the educational goals you have set. You can get an idea of the various sections in the facility, e.g., reptiles, birds or large mammals in a zoo; textiles, industry, literature, etc. in a museum.

Some sites and facilities have special programmes for school groups. In case the facility has the provision for making available the services of an Education Officer, it might be good to discuss the visit beforehand with him or her, and also have this person accompany the group.

The preliminary visit will also give you an idea about several practical aspects, including the time that will be taken in seeing all the enclosures, the route to be taken and the availability of space to conduct activities, what kind of activities are best suited to reinforce the learning of the visit, points to be made while on the round, etc. After this preliminary visit, you may feel the need to revise or modify your goals for the visit.

Now is the time to thoroughly plan the programme.

1.4.3 Planning the Programme

Having set the goal and having got an idea of what is available at the site, it becomes easier to plan the programme. For instance, if you are clear that certain ecological principles are to be understood through a visit to a zoo, the route that is to be followed in the zoo must ensure that the appropriate enclosures are covered. If adaptations are to be the focus, spending time at the bird enclosures to observe different kinds of beaks and feet can help to illustrate the variety. However, you should not try to accomplish too much in just one visit.
Flexibility Helps

It is important while planning the programme to make sure that it is not too rigid, and that it allows the children to explore new things that they see. Sometimes even a properly planned visit might not go smoothly so it is always preferable to prepare a flexible plan that is easy to change depending on the situation. For instance, during the zoo visit, the weather may change suddenly. It could become too sunny or it might even rain. In this case, you might need enough indoor activities like colouring and creative writing. Or you may also find the museum may be crowded on that particular day, which could cause difficulty in carrying out activities.

Planning activities to achieve educational goals

Select and plan the activities according to the educational goals. Avoid having too many activities. Also, it is not necessary to conduct all the activities at the site itself. Some activities can be as well carried out before or after the visit, in the school.

Activities may include games, quizzes, worksheets, observation exercises, creative writing, etc. You as a teacher will need to decide which of these activities is most suitable for the kind of visit and group you have in mind. Then you need to develop/keep ready necessary materials to carry out the activities. You may also need to read and research on questions students are likely to raise.

For example, on a visit to a park, if one of the goals is to study biodiversity, you may want to do a transect study, for which you will need to organize string. You will need to prepare yourself in order to brief your students on the method. Similarly, while planning a cultural trail for your students, you will need to collect basic information about the monuments to be visited.

Worksheets

Worksheets can help to guide participants to observe more keenly. They can be used for any kind of visit – to a park, a zoo, a monument, etc. You may, during your pre-visit to the site, design a few worksheets. The worksheets must be about what students will actually see at the site or facility. Worksheets help to give a purpose to the visit as students become involved and give their unique observations, responses and perspectives. Worksheets also allow you to break the whole class into smaller groups which can work independently. Depending on the theme of the visit, the worksheet-activities may be developed as nature detective, a treasure hunt, a cat and mouse game, a safari and so on.
Different types of activities that can be done during and after visits

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<td>• Games like ‘Oh deer’, Who am I’</td>
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<td>• Discussion</td>
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1.4.4 Briefing the Students

Before setting out for the visit, it is important to brief students on where they are going, what they can expect to see, what the objectives of the visit are, what the plan is, etc. While the educational objective is being conveyed, it is important that the ‘fun’ element of the trip is also emphasized, so that they are not put off. A session on the purpose of the facility will be very useful before the visit.

‘Do’s and don’ts’ for the visit need to be clearly spelt out to the students. It is important that they be given reasons for what they are being asked to do or not do, as this will help them to accept and internalize the behaviour. These may include safety tips, their actions at the place, e.g., not physically touching the artefacts in the museum, not plucking leaves and flowers in a park, not feeding animals at the zoo, maintaining discipline, etc. This briefing should be done the day before the visit and reiterate before going into the facility.

1.4.5 During the Visit

At the site, children need to be given enough opportunity and time to make observations and explore the facility, as well as ‘complete’ the programme.
you have planned. It is important to encourage them to discover and question everything they see. If the educational goals of your visit relate directly to any textbook lesson, try to relate the visit to that lesson. There may also be many unplanned ‘lessons’ in the visit, and it is necessary to explicitly point these out to the children and reinforce them. Many questions may come from students’ observations and these must be encouraged. For example, during a visit to the museum, say a group of students get particularly interested in the textiles section. Time should be taken to discuss the rich textile history of India and give additional information e.g. Indian muslin being exported to other parts of the world since the time trading between the eastern and western countries has been recorded. This can become a project for the term if you are able to get students excited enough.

1.4.6 After the Visit

After the visit is over, the students should be assembled back in one place. A brief oral feedback may be taken on the spot or after the group has returned to the school.

A classroom period may be needed to consolidate the learnings of the visit. Such a session may include discussions, question-answer sessions, quiz, writing or drawing about the trip, making a trip report, etc. The experience of the visit could also be discussed in the context of particular lessons being taught in different subjects, e.g. food habits of animals in science; about the civic amenities in a city in the civics class; creative writing exercises in language class; habitats in a geography class etc. Games can be used to reinforce the learning. The game, ‘Who Am I?’ for instance, is useful to recapitulate and classify all the animals that students saw at the zoo. You can play word games to refresh the memory of what the students saw in the museum. A debate on the pros and cons of zoos, or the importance of having parks, garden and museums in a city, would help examine other dimensions of the subject.

Collecting the worksheets distributed during the visit is one method of feedback. The worksheets can be discussed and evaluated. Students may also be asked to list what they liked the best during the visit and what they disliked and the reasons for their comments. This feedback can also give an indication of the quality of experience students had during the visit.

As a teacher, you need to evaluate whether the educational goals you sought to achieve through the visit have been achieved or not, and whether you were able to relate them to the textbook lessons wherever intended/possible. It may be possible that the objectives with which you planned the visit were not met. Would you consider that visit a failure? Much depends on the reasons why those objectives were not achieved, and whether these reasons were within your control or outside your control. Was the situation at the facility very different than what you had seen on your pre-visit? Did the group behave unexpectedly? Was the visit affected by natural phenomenon like rain, etc.?

Now, let us take a closer look at some opportunities individually.
1.5 GOING ON A CULTURAL TRAIL

History unfortunately, is not a subject many students find interesting. The failure to identify with the subject probably stems from the fact that the students are not able to relate the past to the present, nor does it seem real or relevant to them. To students, history often means memorizing numerous dates and the many dynasties that ruled. The only parts which are easy to recall are events which have stories linked with them. Here, the imagination soars, and students are transported into another world. However, this does not happen often. As a teacher, you have the task of completing the extensive syllabus and so there is little time to explore the aspects other than what is given in the textbook. Can the syllabus and the excitement come together? In this section, we will discuss one way to make teaching and learning about history and culture more interesting – through the medium of cultural trails.

A city cultural trail can help children understand the city’s past. It provides an opportunity to participants to know about various facets of the city such as the history, art and architectural forms and their relevance today. It is an experience of learning through observing, listening, experiencing, feeling and assimilating information. In order to make the trail enjoyable and educative, interesting information and perspectives need to be shared – for example how did the city evolve, what history the city has in its records, what are some of the key environmental, geographic as well as socio-economic and political phases that the city has gone through.

Some educational objectives that a cultural trail could achieve:

- Providing an understanding of the evolution and development of the city in its present form
- Providing an opportunity to understand the social, cultural, economic and political life which existed in earlier times
- Facilitating a chronological understanding of history - in this process, also understanding the influences of various cultures on the architecture
- Giving an understanding about house-forms, their evolution, care taken in design to deal with climatic impact and the social and political needs of that time
- Highlighting the importance of conserving the historical landmarks which help link the past with the present
- Fostering an appreciation of what the city was and pride in it

While the steps to be followed while planning a cultural trail are the same as those mentioned in the general framework, here are some specific tips:
The cultural trail should follow a logical order. For instance, the route for the trail could be decided according to the chronology of historical events.

Significant landmarks (maybe five) need to be identified through library research and discussions with experts. These should be the points where time is spent.

Time given for the trail is very important. It should be extensive enough to cover a significant aspect of history, without making it too long and taxing. If it is a long trail, participants must be given a short break to refresh themselves. A good idea would be to take them to a landmark eating joint which may be an intrinsic part of the history of that locality. This will add value to the purpose of the cultural trail.

During/on the trail, you may also want to invite experts to talk about the city’s history and culture. Later, you may also want to invite representatives from relevant authorities like the Archaeological Survey of India (ASI) or the tourism department of your city, etc. for an interaction with your students.

Since a cultural trail involves visiting monuments and their precincts, the permission of the relevant authorities under whose purview they fall should be taken beforehand. For this, detailed information about the educational purpose of the visit should be given to them. Sometimes these authorities will agree to open certain areas of the monuments generally closed to public.

Certain religious monuments follow specific dress codes. These must be communicated to the students beforehand in order to avoid any intrusion on the religious sanctity of the place. Certain norms of behaviour inside the monuments should be established beforehand to convey the message of respecting heritage, religion, tradition, sentiments, etc.

At each of these sites, a resource person should explain the salient features about the architecture, historical importance of the site, and the conservation aspects, present use, etc.

**Post-visit Activities**

After the cultural trail, reinforcement of key messages/learnings is required. This could be done through a discussion, experience sharing, game or a role play. Another effective method to reinforce messages is a slide-show on the city. The slide-show could highlight the key milestones in the city’s development and present a collection of old photographs. In this way students come to know the city as it was centuries ago and relate it to what they saw on the trail. Alternately, a slide-show can also be organized before the trail to evoke interest about the theme; it may make the trail more inviting for some students with lesser interest.
HISTORY COMES ALIVE

A Teacher’s Experience of Educating Students about Heritage Conservation

This is an example of a project undertaken by students of Class VIII of Sardar Patel Vidyalaya, New Delhi to study lesser-known historical monuments in the city of Delhi. The idea behind the project was to focus on the need for protection and preservation of national heritage and to draw students’ attention to the condition of hundreds of such monuments scattered around Delhi - neglected, unprotected and unwanted. The specific objectives of this project were:

- To make teaching-learning about history more exciting
- Learning to appreciate national heritage
- To research, interview and develop specific skills like mapping, designing, etc.
- To think and do something for the environment in a constructive way

A detailed project outline paper with instructions and suggested activities was prepared and given to the class. The project was carried out by groups of four students. The project was completed in a month’s time. Before the work began, a slide show on Delhi ‘Jahanpanha’ was shown to the students.

The students visited the chosen monuments and studied them carefully. The students also visited the office of the Archaeological Survey of India (ASI) for detailed research. Most of the structures were in ruins and even the ASI had no records and little information. Unearthing of information became a great challenge for the ingenuity of the students. They interviewed the caretakers of the monuments and the people who lived in the area.

One group of students did a detailed study on one of the monuments, including maps and suggestions for clearing up the area and for its protection and preservation. Another student made a maze puzzle making a mockery of the state of apathy in which the monument was lying.

Another group of students took photographs, especially of the ugly modern carvings and inscriptions which pointed out the half-hearted attempts to repair the old buildings. They compared the photographs of the old monuments with the modern ones, such as the India Gate. Students discussed that if such is the state of neglect, what would be the condition of the monuments being built today in the future.

As narrated by Ms. Chitra Srinivas, teacher, Sardar Patel Vidyalaya, New Delhi in News EE May-June 2000
What concepts from the Social Studies curriculum of standards six to eight can be covered through a visit to a) Taj Mahal, b) Raj Ghaat? What are two to three assignments you can give students after your return from one of these?

1.6 VISIT TO ZOO

Zoos are places which are frequently visited by school children. They are a good opportunity for teaching-learning about wildlife and can therefore be used by teachers as places to sensitize students regarding the need for conservation of wildlife. Zoos are an excellent opportunity to expose students to the amazing diversity of life and help them understand many ecological concepts and principles they have been learning in their textbooks. However, often zoo visits are considered just as picnics and are undertaken without any specific purpose in mind. Therefore it is important to not treat the zoo visit as an isolated activity, but in the context of what the students are learning in the class.

Without taking away the fun, with a little creativity and innovativeness, you as a teacher can make the outcome of a zoo visit memorable and long lasting.

Some tips for organizing zoo visits

- If the group is large, divide into smaller groups
- After visiting a section, you can take a break and either conduct an activity or have a discussion, depending on the theme of your visit
- Encourage students to read the information on the sign boards near the enclosures and discuss these with them as you walk around the zoo.
- Facilitate the students in interacting with the keeper and get information about the routine, the food, the behaviour of the animal.
- Encourage students to observe different types of enclosures.
- During the visit, stress the purpose of having zoos.
- Many zoos have quite an amount of vegetation both inside the enclosures and outside. Explain the importance of the vegetation to the students.
- Remind the students to take down notes.
- The group should be advised not to carry plastic bags to the zoo. The students should be explained that animals can end up eating the plastic bags left straying around the zoo and can die of asphyxiation due to it.
Another important instruction to be given is against feeding the animals. Each animal needs a different type of food. The food given by the zoo authority is special and similar to what the animals feed on in the wild. If they are fed with biscuits, wafers, etc., animals lose their appetite for the type of food they are meant to eat. Animals can also get infected with human diseases when visitors give them food. This can make animals sick and even lead to deaths. Students should be warned of the above and also explained that instead of feeding the animals, it would be better to watch the keepers feeding them.

Students should also be informed that shouting, hissing, making faces, throwing things, running in front of the cage, waving sticks etc. disturb and irritate animals. Animals will be a lot happier if the surroundings are quiet. Sounds that animals make can also be heard if silence is maintained.

Other behaviours like spitting and smoking can also prove dangerous. Bringing pets to zoos is also not allowed—the fear is that the zoo animal might catch some infection.

A Visit to Lucknow Zoo with School Students

During Wildlife Week, October 2001, CEE North organized guided visits at Lucknow Zoo for students of standards VI to VIII. In order to make the visit interesting and educational, a quiz (questionnaire) was developed, which required the students to observe the animals. Fifteen schools from Lucknow City availed of this opportunity.

About the Zoo

The Lucknow Zoo was set up in 1921 as the ‘Prince of Wales Zoological Garden’. Subsequently it was renamed as the ‘Lucknow Zoological Garden. It is spread over 75 acres in the heart of the city and attracts a large number of visitors daily. The zoo has over a hundred wildlife species including 38 species of mammals, 52 species of birds and 10 species of reptiles. Its Snake House, Aquarium, Children’s Train and Children’s Park serve as special attractions for the children. The zoo campus also has historical monuments with unique architectural features of the Nawabi era. The State Museum with a collection of historical artefacts adds to the attraction for visitors.
Identifying the Trail/Path

The basic consideration in choosing the path was that it should begin at the zoo entrance itself so that the children were not confused. Care was also taken to design the path in a way that it covered the enclosures of various types of animals, and also that there was a good mix of animals that children are generally familiar with as well as other fascinating and attractive animals which children may not have seen before.

Thus, the identified trail began from the zoo entrance and went past the enclosures of elephant, black-necked stork, chimpanzee, four different deer species—blackbuck, swamp deer, hog deer and spotted deer. Most of the enclosures had signages about the animal.

The Questionnaire

A bi-lingual questionnaire was developed for use after the trail. It had 30 questions including:

- Questions which encouraged students to observe the animals more carefully, (e.g. How many branches do the horns of swamp deer have? Name the largest mammal seen in the zoo)
- General questions about the zoo (e.g. What was the former name of Lucknow Zoo?)
- Questions which drew attention to the code of conduct in the zoo (e.g. What is the penalty for carrying polythene bags inside the Zoo?)
- The questionnaire also had space for participants to write about their experience.

Besides these ‘objective type’ questions, the questionnaire had space for the participants to write about their experiences.

Questionnaire

Please indicate the answer that you think is correct.

Name: _______________________________ Age: ______
School: _______________________________ Std.: ______

1 Which animal is the biggest mammal?
   a) Chimpanzee           b) Barking Deer
   c) Swamp Deer           d) African Elephant
2. Which animal is Uttar Pradesh’s State Wild animal?
   a) Hog Deer  
   b) Blackbuck  
   c) Swamp Deer  
   d) Barking Deer

3. Which animal is not an Indian animal?
   a) Black Necked Stork  
   b) Barking Deer  
   c) Chimpanzee  
   d) Elephant

4. What are the things which are not allowed in Zoo?
   a) Feeding wild animals  
   b) Playing games like Cricket, Football etc.  
   c) Bringing Polythene inside  
   d) All

5. Which animal has biggest animal enclosure?
   a) Elephant  
   b) Blackbuck  
   c) Swamp Deer  
   d) Barking Deer

6. When was Lucknow Zoo established?
   a) 5 June, 1921  
   b) 16 September, 1921  
   c) 29 November, 1921  
   d) 4 October, 1921

7. An Elephant is a
   a) Vegetarian  
   b) Non-vegetarian  
   c) Vegetarian and Non-vegetarian  
   d) None

8. How many branches do a Blackbuck’s antlers have?
   a) 10-14  
   b) 12-16  
   c) 8-10  
   d) 14-18

9. Blackbuck is not found in which State?
   a) Uttar Pradesh  
   b) Gujarat  
   c) Andhra Pradesh  
   d) Rajasthan

10. Which animal is worshiped in Hindu Religion?
    a) Swamp Deer  
    b) Spotted Deer  
    c) Elephant  
    d) Hog Deer
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<th>No.</th>
<th>Question</th>
<th>Options</th>
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<td>Elephants spend 16-18 hours in</td>
<td>a) Resting  b) Roaming</td>
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<td></td>
<td></td>
<td>c) Selecting and eating food</td>
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<td>12</td>
<td>Who has better smelling ability?</td>
<td>a) Elephant</td>
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<td></td>
<td></td>
<td>b) Spotted Deer</td>
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<td></td>
<td></td>
<td>c) Swamp Deer</td>
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<td></td>
<td></td>
<td>d) Chimpanzee</td>
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<td>13</td>
<td>How much water does an Elephant drink in a day?</td>
<td>a) 50 litres</td>
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<td>b) 150 litres</td>
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<td>c) 250 litres</td>
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<td>d) 300 litres</td>
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<td>14</td>
<td>Blackbucks have antlers which are</td>
<td>a) Branched</td>
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<td></td>
<td></td>
<td>b) Small</td>
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<td></td>
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<td>c) Long and Spiraled</td>
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<td></td>
<td></td>
<td>d) None</td>
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<td>15</td>
<td>A deer which runs at very high speed is</td>
<td>a) Spotted Deer</td>
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<td></td>
<td></td>
<td>b) Barking Deer</td>
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<td></td>
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<td>c) Swamp Deer</td>
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<td></td>
<td>d) Blackbuck</td>
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<td>16</td>
<td>Which deer is the heaviest?</td>
<td>a) Spotted Deer</td>
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<td>b) Hog Deer</td>
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<td>d) Barking Deer</td>
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<td>17</td>
<td>Deer spends maximum time in</td>
<td>a) Grazing</td>
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<td></td>
<td></td>
<td>b) Roaming</td>
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<td>c) Running</td>
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<td></td>
<td></td>
<td>d) Resting</td>
</tr>
<tr>
<td>18</td>
<td>Which deer has spots on its skin?</td>
<td>a) Cheetal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Blackbuck</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Swamp Deer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Barking Deer</td>
</tr>
<tr>
<td>19</td>
<td>1st to 7th October is observed as:</td>
<td>a) Wildlife Conservation Week</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Wildlife Week</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Forestry Week</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d) Zoo Week</td>
</tr>
</tbody>
</table>
20. What is the name of train for children at Lucknow Zoo?
   a) Fun Train  b) Zoo Train
c) Bal Train  d) Appu Train

21. How many black coloured animals have you seen?
   a) Three  b) Four
c) Two  d) One

22. Chimpanzees like to eat…
   a) Fruits and leaves  b) Tree bark
c) Insects and Bird’s Eggs  d) All

23. If ten ponds are equal to one child, ten children will be equal to….*
   a) 100 Ponds  b) One Stepwell
c) One tree  d) One Forest

* This was a saying on one of the boards in the zoo.

24. “Please do not……… wild animals”
   a) Tease  b) Touch
c) Feed  d) All

25. How many species of deers have you seen on this trail?
   a) 3  b) 4
c) 5  d) 6

26. Which wild animal was film actor Salman Khan accused of hunting?
   a) Elephant  b) Blackbuck
c) Hog deer  d) Spotted Deer

27. The earlier name of Lucknow Zoo was…
   a) Prince of Bruchelles Zoo  b) Wajid Ali Shah Zoo
c) Prince of Wales Zoo  d) Princess of Wales Zoo
28. How much penalty you have to pay for taking polythene inside the Lucknow zoo?
   a) Rs. 100 /-  
   b) Rs. 500 /-  
   c) Rs. 250 /-  
   d) Rs. 750 /-

29. What is the full form of CEE?
   a) Centre of Environmental Education  
   b) Centre of Ecology and Environment  
   c) Centre of Energy and Environment  
   d) Centre for Environment Education

30. What are the most important solutions for environment protection?
   a) Saving Wildlife  
   b) Saving Plants and Trees  
   c) Controlling Pollution  
   d) All

Write your experience about the nature trail

On the Trail

At the beginning of the programme, the students were asked to carefully observe all the animals they see along the trail. They were also asked to read the instructions and information on the wayside boards.

The students along with their teacher-in-charge were taken along the trail in batches. They were given instructions on proper behaviour in the zoo. A few post-graduate students of Environmental Sciences from the Lucknow University participated as volunteers and went along with each batch to help the teachers. The students were given five minutes to observe each enclosure. This encouraged a few enthusiastic students to even write down the information on the signage in their notebooks. After the trail, the students were asked to fill up the questionnaire.

Answers: 1. (d) 2. (c) 3. (c) 4. (d) 5. (a) 6. (c) 7. (a) 8. (a) 9. (c) 10. (c) 11. (c) 12. (c) 13. (b) 14. (c) 15. (c) 16. (c) 17. (d) 18. (a) 19. (b) 20. (c) 21. (a) 22. (d) 23. (c) 24. (d) 25. (b) 26. (b) 27. (c) 28. (c) 29. (d) 30. (d)
Feedback

The analysis of the filled-in questionnaires showed that the guided trail definitely helped students consolidate their observations. Most of the students gave more than 70 per cent correct answers. (When the same questionnaires were given to children who went around the zoo but were not taken through on the trail, less than 50 per cent of their responses were correct.)

Also, from their feedback on the trail, one could gauge that the experience was quite exciting. One of the students wrote, “I have visited the Zoo several times but never cared to read about the animals. This was a great chance for me, which gave me an opportunity to read about the amazing facts about these animals. I would be glad if I get another chance to visit the zoo with this nature trail experience. It was fun.”

The instructions given before the trail also had a positive impact on the students. As one of the students noted in her feedback, “We should not tease animals. We should protect the Wildlife. So, we should always be friendly with animals”.

We hope the above example would give you a good idea and help you in planning a visit to the zoo for your students that meets your educational goals and yet retains it ‘fun’ value for the students. An example of a zoo worksheet is also given for your reference. Based on what it there at the site or facility, you can develop worksheets and distribute to children either to be filled up at the spot or later on.

Some Zoo worksheet samples:

Feathered Friends Worksheet for the Zoo

Look around and name:

- Two birds with red beaks
- One bird with a curved beak
- Two birds with long tail feathers
- Two birds with eyes on the sides of the head
- One bird that was preening
- One bird with webbed feet
- A bird with feet that have three toes facing forward & a long hind toe
- One bird with two toes facing forward and two toes in the back
Choose any bird. Describe/draw

- The colour of its feathers
- The placement of its eyes
- The size and shape of its beak
- The size and shape of its legs/feet
- What was it doing?
- What food was in the cage?
- What kind of sound was it making?

Can you develop a worksheet which helps students understand the characteristics of reptiles?

### 1.7 VISIT TO PARKS AND GARDENS

Protected Areas like National Parks and Wildlife Sanctuaries play a major role in conserving flora, fauna and representative ecosystems. Since they are visited by a large number of people, they also have a great potential in promoting appreciation and interest in wildlife and public awareness on biodiversity, conservation and sustainable use of natural resources. But as teachers of a school, it may not be convenient for you to take your students to such areas.

In urban areas, nature parks and gardens act as green lungs of the city and their environs offer interesting options to cater to a variety of interests. Usually, these parks and gardens also house a rich biodiversity of trees, insects, birds, small mammals, reptiles and other wildlife. As a result, they become a resource which beautifully combine rich natural, cultural and manmade heritage.

Taking your class to a park or a garden may not be very difficult for you and it is also a welcome change from the monotony of the classroom setting. This could simply mean a walk around the park/garden to have your students sight a number of interesting things like birds, butterflies, trees, flowers and even the public life around it. You can also plan various educational activities to evoke further interest in students for appreciating the biodiversity around them. In this way, a park or a garden in the proximity of your school can become an excellent resource for environmental education. A half-day or a two-hour visit would be a lively, exciting and enriching experience for the students to bring to life what they read in their textbooks.

Depending on what is available at the park or garden, you plan to take your students to, a number of activities can be planned. A bird-watching trip or a nature trail can be organized with the help from some nature education volunteers. With the help of the park or garden authorities, students can be explained the details of tree planting, after-care and the unique characteristics
of different species of trees and plants. A tree-planting activity can also be arranged. For this activity, you will need to organize saplings depending on the size of the group. Through worksheets and after-visit discussions, the significance of protecting and conserving nature parks in cities can be explained, especially bringing in concerns about green spaces within cities being threatened by pollution, encroachment and development activities.

Let us look at an example of a nature education project being done with city-based schools with the objective to encourage students to care for green spaces in their city.

**Nandanvanam**

Nandanavanam is a nature education project for school children initiated by CEE Andhra Pradesh. The project is supported by Urban Forestry Division of Municipal Corporation of Hyderabad (MCH) and State Department of Education. The project aims to orient school children towards plant life in urban areas through practical exposure, and also encourages students' action for conservation of green areas in the city. Under this project, CEE is working with 23 government high schools located in the proximity of 11 parks in Hyderabad city.

**Objectives of Nandanavanam**

- To orient school children to the plant life in the city, especially in the parks, gardens, (green areas) etc.
- To give school children a practical exposure to what they study in the regular curriculum
- To impart in students skills in planting, after care and study of tree and plants
- To facilitate action by students for conservation of the greenery

In order to meet these objectives, activities were designed which would focus on certain broad areas of nature education. These facilitate learning about the following aspects:

- History and significant features of the Parks
- Biodiversity existing in the Parks
- Seasonal variations occurring in the Parks
- Various organisms and their adaptations/interactions
- Plant keeping (nursery) techniques thereby enhancing their skills in the conservation of environment in general and greenery in particular.

In order to help teachers carry out activities in a structured manner, two Teacher’s Manuals were developed in English and Telugu.
The manuals not only mention the activities and how they can be carried out, they also provide background information on nature education.

The first manual titled ‘Chettu’ in Telugu meaning ‘Tree’ is about giving an understanding to students that tree is an environment by itself and also a part of the larger environment. It helps them to learn about how trees are important to a variety of creatures living on and around it; discover the relationship among them and their interdependence. The manual has various activities which take students on a discovery of the tree including its physical characteristics, leaves, bark, flowers, fruits, etc. The activities also help students to sharpen their observation skills and their senses of perception.

The second manual ‘Harita Viharam’ is a step-by-step guide that helps teachers plan and organize a nature trail in a park. A nature trail is a nature education activity where the students go on a structured tour of the park, observe and take notes on the various plants and animals (including weed plants, insects, birds, etc. which they come across). Through this activity the children learn to appreciate the role of parks as providing habitat to a variety of species, and understand the need for their conservation. This manual also provides details of various species of flora and fauna that can be easily spotted in Hyderabad’s parks. This gives structured information to teachers themselves about the special feature of some common species of plants and animals which they can share with the students.

Further Steps

The Nanadanvanam project has some more components which consolidates the above activities and makes it in to a more long lasting and comprehensive initiative in nature education. These components are:

1. Wall Magazine

A monthly wall magazine for school children called ‘Green Zone’ is being developed in Telugu and Urdu, and disseminated to 800 schools. Each issue is developed focusing on themes such as common birds, animals, insects, plants, etc. found in the city. Interesting facts about the theme, games, puzzles, etc. make the wall magazine interesting for students. Based on feedback from students, the format of presentation of the wall magazine has been improved so that it maximizes on the use of visuals while keeping text to the minimum.
2. Newsletter

A fortnightly newsletter is also developed and disseminated to the schools involved in the Nandanvanam Project. The newsletter gives information about activities happening in the project, important events and programmes in environmental education, ideas for nature education activities and other general information on nature education.

3. Snake Shows

With support from a local agency called ‘Friends of Snake Society’, snake shows are conducted in the project schools. This activity is a conscious effort to develop a sense of responsibility in children towards wild animals. The snake shows have helped in removing the myths related to snakes and created awareness towards protecting them.

4. Annual Event

As a culmination of year-long activities, an annual event is conducted by the schools wherein the findings of students along with suggestions for improving the parks are presented in the form of posters and models to other schools and community members. The schools also conduct cultural activities, drawing and painting competitions in the annual event.

Visit a Park or a Garden near your school. Prepare a plan for a two-hour visit for your students to this place. The plan should include (a) educational objectives, (b) activities to be done and (c) Pre and post visit activities.

1.8 VISIT TO MUSEUMS

Museums are repositories of knowledge; the exhibits are the most powerful means of communication there. Unfortunately, the educational value of museums is not fully understood or utilized. It is only rarely that one finds a family planning an outing to a museum - family outings usually mean a visit to places like water parks, go-karting, zoo, etc. which rank high on fun and entertainment but low on education. Schools can benefit greatly by including a museum visit in their yearly plan; it can be linked to the syllabus or can be taken up as an extra-curricular activity that adds to the general knowledge of the students. As a teacher, you will need to set the educational goals accordingly. There are several types of museums like a natural history museum or an archaeological museum, or a historical museum. You will of course need to plan your visit based on what is accessible for you and your students.
NMNH

The National Museum of Natural History (NMNH), New Delhi, was established in 1972 by the Late Prime Minister Smt. Indira Gandhi. It was set up with the objective to depict India’s flora, fauna and mineral wealth in order to provide an out-of-school facility for education of children and to promote environmental awareness among the masses. The museum seeks to achieve these objectives by organizing various activities such as film shows, public lectures, painting contests, teacher orientation programmes and programmes for the handicapped. Besides exhibit galleries, the museum has a discovery and activity room for children. As part of its regular educational activities for schools and children, it organizes in-house and outreach programmes, temporary exhibitions, and publication of popular literature for creation of environmental awareness.

One of its publication is in the form of an Animal Workbook for children. It contains interesting facts about flora and fauna of India as well as games and puzzles. Some sample activities contained in the book are given below. On a visit to a museum, you may design similar games and puzzles for your group of students which they would require to fill up based on what they observe during the visit.

Samples of museum worksheets

Animal Puzzle

Name the animals shown below, to solve the puzzle.
Who Am I?

I am proud of my massive horn-shaped large yellow-and-black bill. My wings have two white bars and tail has a black band. I live in evergreen forests. I eat fruits, insects and reptiles.

Can you guess who am I? Unscramble the letters to get the answer.

HNBLROIL

Answer:
Animal Groups

There are over million different types of animals. Scientists arrange them in groups. Members of a group have similar features.

Given below are different groups of animals. Put the names of the animal groups in the numbered squares and fill in the crossword.

1. 
2. 
3. 
4. 
5. 
6.
You can also take your students to visit a nearby bank, post office, city municipal corporation office or the village panchayat office. In all these places, EE can be transacted by preparing students to ask the staff members key questions on their awareness about the environment, present-day concerns and environmentally safe practices.

For banks and post-offices, students can prepare a questionnaire to find about wastage, usage and re-usage for saving of paper, consumption of electricity, consumption of water, etc. At the local panchayat or municipal corporation office, students can be encouraged to find out what kind of projects related to the conservation and protection of environment are underway, what is the cost of implementation, which agencies are involved in it, etc. Building check dams and percolation tanks for rainwater harvesting are the most common projects; also increasing the green cover of the city/village are uppermost on the priority.

Such visits will not only broaden their understanding about their environment but it will make children walk into offices and familiarize themselves with their working; which they will otherwise visit only after a certain age.

1.9 CONCLUSION

These are some examples of how sites and facilities can become a rich resource for teaching and learning about the environment. The advantage of such visits is that they provide students with the opportunity to interact with a real environment, not just pictures or words in books. They provide first hand experiences to see, hear and feel – these experiences may not be easily duplicated in a formal classroom. In addition, these opportunities also give the scope of breaking away from the conventional chalk-and-talk method of teaching and learning; it challenges you as a teacher/facilitator and also stimulates the students. We hope the information given in this unit will help you in planning visits for your class/schools in the future.

2.0

Take your class on a visit to any site. Prepare a plan for the same. Preparing a report on the visit including what were the practical problems; which activities worked and which did not; and students’ feedback could become a good reference tool towards planning the next visit. You may want to include some photographs in the report.