UNIT 22 EXPLORING THE ENVIRONMENT

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22.1 INTRODUCTION

You know that children learn through activity. They learn as they explore things around them. But one cannot leave all learning to chance encounters between the children and their environment. The guidance of the caregiver is necessary to help them understand what they see, to direct their attention to what they are likely to miss and to introduce them to new concepts. The caregiver can foster cognitive development by setting up an environment where there are many stimulating things to do, time to experiment and someone to listen to as children reason and question.

In this Unit you will read about organizing play activities that will help children to explore their environment and know about it. You can introduce them to many aspects of their environment through these play activities. Some of the concepts around which you can plan play activities are:

- concepts of water, air, floating, sinking, shadows, weather, seasons, day, night, the rain, the clouds (i.e., concepts about the physical environment)
- concepts related to plants, fruits, vegetables, birds, animals, the people and oneself (i.e., concepts related to living things)
- concepts related to festivals and fairs; people in different occupations—the doctor, the farmer, the vegetable seller and so forth; services for people like the hospital, the post office, the market; people in different climates and cultures—their habits, dress, festivals (i.e., concepts related to culture and society).

In the Unit we have described some play activities based on these concepts. Using these play activities as examples, you can plan many other activities that will be relevant to the needs of the children in your centre and will further their understanding about their environment.

Can you think of some more aspects of the environment around which you can plan play activities? List them in the space provided below.
Besides furthering children's understanding of their environment, you will also be able to strengthen their cognitive abilities, about which you have read in Block 4, through the play activities described in this Unit. Through them you will also be able to foster scientific thinking in children and introduce them to certain concepts of science.

What exactly do we mean by "foster scientific thinking in children and introduce them to certain concepts of science?" It does not mean explaining gravity, electricity, motion and sound or the process of life and death. The science experiences in a preschool centre are the beginning of learning. The aim is to foster children's skills of observation and analysis. These, as you know, are the processes that are involved in scientific thinking and hypothesis-testing. The preschool worker can structure children's experiences so that they get an opportunity to use these processes. These experiences of the preschool years will serve as a basis for understanding complex principles of science later on. The following scene brings out how one can use everyday experiences to promote scientific thinking.

A four-year-old was playing with a bucket full of water. As he was playing, his mother dissolved some soap flakes in the water and showed the child how to make bubbles by blowing air through a straw. Excited by this discovery, the child began to make bubbles. After playing thus for some time, he paused and looked at the bubbles for a while. Then he blew again, this time with more force. A large number of soap bubbles were formed and he ran to call his mother to see them.

Whether it is a child trying to make soap bubbles or a scientist working in a laboratory, the processes involved in thinking and problem-solving are the same—doing something, reflecting upon the outcome and modifying one's actions. Both the scientist and the four-year-old experimenting with bubbles are "doing science". One of the objectives of preschool education is to present an introduction to science and to develop a scientific temper; the objective is not an in-depth study of all the content from the biological and physical sciences. It is also important to remember that it is not advisable to present preschoolers with a lot of information and concepts at once. The teacher is responsible only for a little stimulation at a time, to children's learning.

In the Unit we have introduced the various environment-related play activities that one can carry out with preschoolers through Kamla and her group of children. Kamla is an educator working in preschool centre in a village in Uttar Pradesh. She is in charge of
15 children in the age range of 4-4 1/2 years. As we narrate the conversations and describe the activities in the centre, you will come to know about some of the play activities that you can carry out with preschoolers. After narrating each episode, we have discussed the points that emerge from it, in the sections that follow each episode. These points relate to the play activities described in Block 5 and Block 6 and not just to the activities described in this Unit. In some instances we have contrasted Kamlia's method of carrying out play activities with that of other educators. This will help you to know the more interesting and more suitable ways of carrying out play activities. The conversations with and among children written in this Unit were in Hindi. The first episode is in Hindi with its English translation. In the subsequent episodes, only the English translations have been given. As must have become clear, these conversations can be conducted in any language.

Objectives
After studying this Unit, you should be able to

- list some aspects of the environment around which you can plan play activities
- understand that children learn from concrete experiences
- realize that it is important to respond to children's feelings and convey enthusiasm in learning
- provide relevant learning experiences to children
- organize a trip with children to a place of their interest
- set-up discovery areas
- state the steps involved in planning play activities and plan play activities accordingly
- plan and organize play activities that will give the children an opportunity to explore their environment and know about it
- devise play activities that will foster cognitive abilities such as reasoning, problem-solving, hypothesis-testing, matching, grouping, finding common relations and understanding cause and effect relations i.e., those that encourage scientific thinking

Let us now join Kamla and the children in the preschool centre and read about the play activities being carried out there.

Kamla was narrating a story to the children when Sudha, an active four-year-old who had been playing outside till now, came running to her with a weaver bird's nest in her hand. Excited by her find, she wanted to show it to others.

She said— "आनी! देखो! मुझे नहा मिला!" ("Auntie, look! See, What I have found!")

Before Kamla could reply, the other children, who till now had been listening to the story with rapt attention, got up and crowded around Sudha.

Manoj—"दिखा! दिखा, मुझे दिखा l' ("Show! Show me!")

Uma—"इसे बड़ा है l' ("It is very big!"")

Hari—(पोषकता हुई हुई है) "अरे! इसमे तो घास है! और यह चूल्ला भी है l' (feeling the nest: "Oh! This has grass in it. And it is prickly as well!")

Manoj—"यह सीप का घर है l देखो, इसमे एक सुराख भी है l' ("I feel this is a snake's house. See! There is a hole in it.")

Balk—"इससे तो हम फुटबॉल खेल सकते हैं l' ("We can play football with it!")

The nest passed from one child to another. Each one had something to say about it. At this time Kamla intervened and said: "यह है तो किसी का घर, पर यह सीप का घर नहीं है l यह एक विष्कर का घर है l यह घोंसला है l तुमने कभी पेड़ पर घोंसला देखा है l' ("This is somebody's house, but it is not a snake's house. This is a bird's house. It is a nest. Have you ever seen a bird's nest on a tree?")
Some children responded to her question. Finding that the majority of the children had not seen one and, therefore, would not be able to understand much of what she would say further, Kamla took them to a tree where she had seen a nest some days earlier. She pointed out the nest to them. There in the open, under the shade of the tree, followed a conversation about why and how birds make nests and when they lay eggs in it.

At this juncture Abdul said: "मैं तो दैर्य अंडा खाता हूँ!" ("I eat an egg every day.")

No sooner had Abdul said this that Uma, who was sitting next to him, exclaimed gleefully: "अब तो तेरे पेट में एक चिड़िया बन जाएगी!" ("Now a baby bird will form in your stomach!").

This caused the whole group to break into laughter. Abdul, believing that this would really happen, got frightened. At this point Kamla interrupted the conversation and said: "नहीं, यह गलत है। जो अंडा खा लेते हैं, उसमें से चिड़िया नहीं निकलती। अंडे में से कच्चा तभी निकलता है जब उस पर चिड़िया बैठती है।" ("No, this is not correct! If you eat an egg, a bird can't come out of it. A baby bird forms inside an egg only when the mother bird sits on the egg.")

Abdul seemed a little reassured by this, but Kamla could see that he was not yet convinced. She made a note of it, realizing that she would have to deal with this aspect further.

The entire episode, from the time Sudha had brought the nest, to this last conversation, had taken about 25 minutes. Finding that the children were no longer as interested in the nest, Kamla decided that it was time to change over to the next activity. She, therefore, dispersed the group, asking them to play on their own.

In the following sections, we have analyzed the aspects that have emerged from the above interaction.
22.2 RELEVANCE OF LEARNING EXPERIENCES

The learning experiences should be appropriate to children's age and abilities. By now you are well aware of this fact, but it is an important aspect which needs to be re-emphasized here. Children should not be pushed beyond their capacity as this takes away their motivation, discourages them and results in tension for parents, educators and children. The parents will be unhappy because their child cannot do what they expect of her and the child will be unhappy because she has not been able to live up to the parents' expectations. This lowers the child's self-esteem.

But how can one gauge what is suited to children's age and abilities? One of the ways in which you can do this is to find out what the children themselves find interesting. If you build your play activity from their interests, it will be just appropriate to their needs and abilities. This is because children show an interest in what they are mentally and physically capable of doing. The episode that has been quoted brings out how Kamla, the teacher, realizing that the children found the nest interesting, devised a learning activity around it.

22.3 UTILIZING THE "TEACHABLE MOMENT"

The episode described above is a good example of how one can use the "teachable moment". Finding that the children were interested in the nest and that it was an excellent opportunity to further their minds, Kamla left the story narration and changed the activity. She was flexible. You have read in the first Block that flexibility is a very important trait in a preschool worker.

One can well imagine how a teacher who is not flexible, may have responded to Sudha. Such a teacher might have been irritated by this interruption to the smooth progress of her story. She would have probably responded by saying: "Now keep quiet Sudha! Where were you all this while? What have you got here? Go throw it away and come and sit here and listen to this story!" and then, without further delay, would have continued with the story! She would not have taken up the topic of nests because this was not what she had planned. This is a rigid approach, which does not allow room for flexibility. Such a teacher is not child-centred. Not only does she lose an excellent opportunity to broaden children's minds, but her actions also convey to children that they should do as they are told and not make any suggestions. If children experience this repeatedly, their spirit of inquiry and their sense of wonder will be smothered.

If one thinks of ones days in school, one can recall some teachers who generated a passionate interest in their subject because of their enthusiasm and their positive attitude towards the students. It is these teachers whom one remembers with fondness.

22.4 BUILDING CHILDREN'S INTEREST

Did you notice how Kamla allowed an interest to build up in the nest before she intervened? If she had intervened as soon as Sudha had brought the nest and said: "Look children! What an interesting thing Sudha has got! I will tell you about nests now!", the children would probably not have responded as enthusiastically as they did. When the children touched and explored the nest, their curiosity about it reached a level where they wanted to know more about it. They were, therefore, eager to hear what Kamla had to say. It then became an activity which they chose rather than one that was imposed upon them. Thus, the educator must know when to direct children's activity and when to remain in the background.

22.5 SPACING LEARNING

Kamla did not load the children with information about nests. Learning should be spaced, with the caregiver presenting a few facts at a time and promoting children's reasoning and problem-solving skills gradually. Also the belief that
children learn only when you tell them something is erroneous. Learning goes on even when children are by themselves — playing with pebbles, digging into the sand, picking up leaves and looking at the plants.

Let us now follow the activities of this group of children in the days after the discovery of the nest.

Play Activity 2: Discussion about hatching

Confident that the topic of nests was of interest to children, Kamla planned activities based on this for the next few days. She decided that each day she would spend about 20–25 minutes on this topic. Thus nests and related topics were taken up as a project. Let us see how the learning experiences were organized.

Since the earlier day the conversation had ended on the topic of eggs, Kamla decided to take this up as a starting point the next day.

She said: “Yesterday Uma said that if Abdul eats an egg, a bird will form in his stomach. This is not true. Let’s talk about how a bird actually develops from an egg. O.K.?”

“Yes! Hmm,” the children responded.

However, Uma insisted: “When you eat an egg you will see that a bird comes out from your stomach! My mother told me so!”

Kamla responded: “No Uma! That is not correct. But before I tell you how it really happens, you all tell me which birds have you seen?”

The children were quick to respond: “Crow, sparrow, pigeon, parrot, kite”, they said.

This conversation reminded one child about an incident with a crow and he began to narrate it: “One day a crow snatched the biscuit I was eating and flew away. I got very frightened.”

A rather child upon hearing this responded: “Why didn’t you hit it? I would have hit it.”

Finding that the conversation was about to take a different turn, Kamla gently yet firmly intervened: “Shyam, we will talk about the crow later. Let’s first talk about how a bird is formed from an egg. O.K.?”

She continued: “When birds have to lay eggs, they first build a nest. Then in the nest, the mummy bird lays the egg. She lays two or three eggs, sometimes even four or five (showing the numerals with her fingers as well). Then the mummy bird sits on the egg for the whole day and covers them completely with her body.”

At this point she was interrupted by a child who said: “If she sits on the eggs, the eggs will break!”

Kamla clarified: “She sits on the eggs very carefully and does not press them hard. So they don’t break.”

Finding that the child seemed satisfied with the answer, she went on: “In this way, she sits on the egg for about one to two weeks. During this time, a small baby bird begins to form inside the egg. When the baby bird gets formed, the egg breaks and the baby is born!”

The children became thoughtful. One child wanted to know: “What does the father bird do?”

Kamla responded: “Sometimes the father bird flies away; sometimes he stays with the mother in the nest and gets food for her.”

Feeling that she had introduced many new concepts, Kamla decided to end the discussion, but before doing so she addressed Uma: “Uma, do you think that if Abdul eats an egg, a bird will grow in his stomach?”

Uma seemed to be thinking about it and Kamla left it at that. Since it was the time for mid-morning snacks, she asked the children to get their lunch boxes.

The aspects which emerge from this dialogue between Kamla and the children are discussed under the following sections.
22.6 RESPONDING TO FEELINGS

One must remember that feelings are part of experience. This is an aspect that we often tend to forget. Just think back upon your own school life. Did you enjoy working with a teacher whom you did not like or studying the subject that did not interest you? If on a particular day you had an argument with a close friend, could you concentrate in the class? So it is with children. Since children are often unable to state their feelings clearly, we tend to assume that they have none. Along with this, there is so much pressure on the teachers to help children master academic skills, that there is no time for feelings. Therefore, the caregiver has to be particularly sensitive to the moods and expressions of children. Unless the child’s emotional life is reasonably calm, she will not be free to focus her energy on the play activities.

Notice how Kamla tackled Abdul’s fear about eating eggs. She did not ignore the fear or brush it aside “because we are talking about nests now.” In fact, she planned a discussion around it.

22.7 CONVERSING WITH CHILDREN

You may have noticed that at every stage in the conversation, Kamla involved the children. This created an atmosphere of a dialogue rather than that of a lecture.

If you go over the conversation again, you can identify the sentences through which Kamla initiated a dialogue. The first one is when Kamla says: “Let us talk about ...” Such a statement invites the children to participate in a discussion. Had she said: “Now I will tell you...” or “Now listen how...”, her words would have indirectly conveyed to children that their own involvement was not sought. Kamla also asked questions, which is another way of involving children. Thus the choice of words and sentences while conversing with children is very important.

Also notice the way Kamla steered the conversation back to the topic of eggs when two of the children began talking about a crow. At that time, there was a likelihood of the conversation shifting to the narration of make-believe encounters with birds. Kamla debated whether to encourage their imagination or to continue with her discussion. Feeling that the latter was more important at that point, she interrupted the two children.

You would remember that in the earlier case when Sudha had interrupted the story by bringing the nest, Kamla had gone along with children’s interest and left the story narration. Thus she reacted differently in the two situations, according to her assessment of what was more important. In the first case she changed her activity; in the second she did not do so. These examples bring out when to be flexible and when to continue with the activity that one has planned. However, this decision, by and large, is a matter of individual judgment. One cannot strictly lay down what one should do in a particular situation because this comes by experience and grows out of one’s understanding of children. Nonetheless, a broad rule can be suggested: Do not fail to make use of a learning experience, just because it had not been planned beforehand.

Notice that when Kamla interrupted the two children, she did not scold them for moving away from the topic of discussion. In fact, she clearly stated that they could talk about the incident with the crow later. This communicated to the children that they were not being dominated. A less sensitive person could have said: “What are you two talking about? Keep quiet and listen to me!” Such a technique, if used regularly in dealing with such situations, can stifle children’s curiosity and imagination. Thus, the way you converse with children is as important as the play activities you design.

22.8 LEVEL OF LEARNING

When we spoke about the relevance of learning experiences in the earlier section, we had said that experiences should be appropriate to children’s abilities. That point is clearly evident in this episode.
Notice the level at which Kamla pitched the information about hatching. The hatching of eggs is a complex topic. Each type of bird has its own nesting style and the time taken for the eggs to hatch is different in each. The roles of the male and female parent also vary in different species. But the preschool child does not have to be told these details. They would normally be beyond her grasp. You can find this out for yourself. As you interact with preschoolers in your neighbourhood, talk to them about nests. Through discussions with them, through their questions and their interest, you will be able to judge to what detail you can talk about this aspect.

Kamla's aim was to give the children an elementary understanding about how a bird develops from an egg. She was making the children aware of one aspect of their environment, extending their thinking a little further. She had not intended to make children simply memorize facts. Any topic that is introduced to preschool children should help develop their ability to reason and to deduce the cause for events. Through the discussion children learnt some facts—that birds lay eggs and that little birds hatch from them. But when Kamla asked Uma whether she thought that birds will grow in one's stomach if one eats eggs, she was asking the children to reason and analyse. Thus she used facts as a basis for fostering reasoning skills. Facts are important but they are not an end in themselves. You will read more about this aspect later in the Unit.

Another aspect to remember is that one must not expect children to grasp all that one has explained nor expect that all of them will grasp it equally well. In the above episode, it is not as if this one discussion had clarified children's concepts about hatching. This was just the beginning. There will be many instances which will further their understanding. They will probably hear a story related to this, or the topic may come up in their conversations with parents at home. Through these experiences, they will question and re-question their thinking and develop a firmer concept.

Check Your Progress Exercise 1

1) In your day-to-day life you would have come across many instances when children, while participating in an activity or interacting with adults, have learnt some concepts. Can you recall one such incident and write it in the space provided below?

2) Why is it important that the learning experiences you plan for children should be appropriate to their age and abilities?

3) State whether you agree or disagree with the following statements.

   a) If you build an activity around what interests the children, the activity will be just appropriate to their needs and abilities.
The next day Kamla initiated a discussion about the shape and the construction of the weaver bird’s nest. She explained why the weaver bird makes the nest in that particular way. While explaining this, she passed on the nest from one child to the other. As in the earlier conversations, she was responsive to the comments and questions of children.

The following comment by a child as she was listening to Kamla, brings out how children often relate new information to their earlier experiences. Karnla explained how the nest was divided into two compartments so that “the bird can hide its eggs from the enemies who will want to eat them.” To this Shashi, who had been listening attentively said: “I also hide when my mother brings milk!”

Subsequently, Kamla shifted her focus from giving children facts about the bird’s nest to encouraging their ability to match, compare and reason. She asked: “The nest that we saw yesterday on the tree, was it like this nest of the weaver bird?” As she asked this question, she held up the nest for the children to see.

To her question some children responded in the affirmative, some in the negative, but most kept quiet. Realizing that the children probably did not remember how the nest looked, she took them outside to see it again. Now children pointed out some features of similarity and contrast. After some discussion on this aspect, Kamla changed over to another play activity.

The play activity described in this episode was an example of how one can foster children’s reasoning ability. The children could differentiate between ‘same’ and ‘different’ and, based on this understanding Kamla helped them to compare the two nests. They used their reasoning and this, in turn, led to another fact—that different birds made different types of nests.

The next day Kamla suggested that they could try making nests of birds. These could be placed in one corner of the room and that area should be called the nest area. This idea was received with exclamations of joy and surprise but there were queries as well. One child felt that he would not be able to make a nest because “I don’t know how to climb a tree.” There were questions about how one makes a nest and a bird would come and lay eggs in this nest.

Kamla clarified: “We are not going to make a real nest. We are going to make a nest so that we can play with it. Now tell me, with what material had the birds built their nests?”

The children responded: “Grass, twigs, leaves, small sticks.”

Kamla said: “Then let’s all go out and collect these things!”

She divided the children into three groups—one group was to collect twigs, the other leaves and the third group, grass. The next ten to fifteen minutes were spent collecting these. In the process children collected other things as well—pebbles, stones and some flowers. Back in the room the children, with Kamla’s help arranged the leaves, twigs and grass in the shape of a nest. So much material had been collected that three nests...
were made. Making the nests caused a lot of excitement and laughter. There were many suggestions as to how to make the nests better.

Once the nests were ready, there came the question: "What do we do about the eggs?" There were different opinions. One child suggested: "Let's put these stones there." But this was not accepted because "One can make out these are not real eggs. Eggs are not red in colour!"

Then the children debated the merit of getting real eggs and putting them in the nests. This idea was rejected because eggs taken out of their own nests would not survive and should not be used as toys. When nothing seemed satisfactory, Kamla suggested: "Let's make eggs with clay and we can paint them with white colour and they will look like real eggs!"

As soon as she said this, some children, their imagination fired, ran to the area where the clay was kept and began making eggs. Kamla asked some children to paint the paper cut-outs of birds that she had kept ready. Finally, with the 'eggs' and the 'birds' ready, these were put around the 'nests' and a nest corner was ready.

This nest corner became the centre of attraction for many days. Groups of children would gather around the area and enact stories of birds and animals. They began to add other interesting things to this area.

Notice how Kamla lets the children think about how to make eggs before she gives a suggestion.

Let us see what happened in the subsequent days.

With so much interest created in birds and eggs, Kamla thought that it would be a good idea to take the children to visit a poultry farm in the neighbouring village. Some of the children had seen a poultry farm but most had not. In any case, even for the children who had seen one, going together as a group would be a different experience altogether.
She spoke to the owner of the farm, who agreed that children could come and spend about an hour here. The next day she told the children that she had seen a place where "there are so many hens that I could not count them! Would you like to visit this place?"

The children were enthusiastic about this visit. Over the next two or three days, she made transport arrangements and informed the parents about this visit. She prepared the children for the visit. This was to be their first visit to some place outside the preschool centre. She talked to the children about the farm and explained that it was a big place where many people worked. She prepared the children about what to expect. The children were excited and Kamla was a little nervous! She was apprehensive that children may become unruly. She requested a friend to accompany her, so that managing the children would be easier.

The children found the experience of the trip rewarding and enriching. They exclaimed: "Oh! Look there! So many hens." Their queries were answered by the workers in the farm.

Over the subsequent days the children often talked about the trip. Some children drew and painted pictures of the poultry farm, the eggs and hens—of course, in their own way.
Trips like the one described above are an invaluable part of learning. They give the children first-hand experience. Trips are fun and when children see things for themselves, it becomes easy for the educator to impart concepts. You can well imagine that simply talking to the children about the poultry farm would not have been as interesting or informative. Many of them would not have been able to visualize a poultry farm. Besides, during the trip the children came to know about many other aspects which had not even been planned. During the trip they learnt to cooperate with each other and to relate to people.

You can get ideas for planning such trips if you are attentive to children. If you listen to conversations among children as they are playing, you can get many ideas about organizing trips like these.

These trips do not have to be made to 'big places'. Any aspect of the environment which is likely to interest children and which is safe for them to visit, is a potential venue for a trip. The trips need not be elaborate. A fortnightly or monthly trip to a house being constructed or a trip to the neighbourhood park are fascinating experiences for children.

Ideally, the places you go to visit should allow children to move around, talk freely and participate, rather than just observe things. It is possible that the place one chooses does not fulfill all the criteria. The trip to the poultry farm, for example, did not give children the opportunity to do something—they were not allowed to handle the eggs, for instance.

However, another trip to the kitchen garden proved to be highly successful in providing the children an activity. The owners had planned to sow seeds of ladies fingers. When the children came to see the kitchen garden, they asked them to sow the seeds. The area for sowing had already been dug up. Children put the seeds as demonstrated and then covered them with soil. Later each child watered his/her area. When it was time to go back, children were asked to pluck tomatoes growing in the garden and take two tomatoes each.
A visit to the construction site organized by another teacher had all the children exclaim in wonder. This particular visit was to a site where the foundations were being dug. This was a completely new experience for children. Some of them exclaimed: “Oh look! The house is below the earth as well!”

Think of your own locality. If you planned to take children out for a trip, where would you take them?

In the Table 22(a) are listed trips that you can plan with children and the activities you can carry out there.

<table>
<thead>
<tr>
<th>Trip to</th>
<th>What the children can do</th>
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</thead>
<tbody>
<tr>
<td>1) Potter’s house/shop</td>
<td>— see the different operations that are performed before the clay is ready</td>
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<tr>
<td></td>
<td>— see the potter giving shape to the pot</td>
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<td></td>
<td>— see the potter painting some of the pots that are ready</td>
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<td></td>
<td>— knead the clay and paint the pots, if the potter allows</td>
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<tr>
<td></td>
<td>— buy some pots</td>
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<tr>
<td>2) The post office</td>
<td>— see what happens to the letters after they are posted in the letter box</td>
</tr>
<tr>
<td></td>
<td>— see the letters being stamped</td>
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<tr>
<td></td>
<td>— buy stamps from the counter</td>
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<tr>
<td></td>
<td>— you can help children write a few lines on real postcards which they can post to a friend</td>
</tr>
<tr>
<td>3) The lake/river/beach</td>
<td>— rowing in the lake will be fun</td>
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<tr>
<td></td>
<td>— collecting shells</td>
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<td></td>
<td>— walking along the river for a short distance</td>
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<td></td>
<td>— watching the waves at the beach and the gushing water of the river will be a great fascination</td>
</tr>
</tbody>
</table>

The following are some more suggestions for trips. What do you think the children can do on these trips?

1) The market

2) The park
4) The fair

5) The circus

6) The wheat-grinding shop

7) The library of the school

8) The kitchen garden in a nearby house

9) The teacher's house
As you must have realized, taking the children out for a visit requires careful planning on your part. Let us read about this aspect.

**Before the Trip**

You must first visit the place where you are planning to take the children. This will make you familiar with the area—you will come to know what is likely to interest the children and what may be the dangers. The visit will also prepare the adults, if any, working at that site. You can request them to talk to the children.

Before going on a trip, children should be told how they are expected to behave. For example, before visiting the kitchen garden, their parents must be informed to dress children in clothes and shoes that can take wear and tear. Children must be told to keep away from bricks and trenches on the building sites. If there is any misbehaviour during the trip, it must be tackled immediately.

The following are some practical hints that will help you to organize your trip.

- Arrange for the bus or car beforehand, if it is needed.
- Get the parents’ permission for taking the children out for a trip.
- Make sure the children are dressed suitably.
- Count the number of children before and after the trip.
- Leave a list of children at the preschool centre.
- Encourage children to use the toilet before departure.
- Make name tags with addresses for each child.
- Take a first-aid kit with you.
- Carry drinking water for the children.

**During the Trip**

While on the trip you must be open to any unexpected learning opportunity. It is important to stress again that children learn more than we may have planned. Any opportunity that allows them the use of their sensory or reasoning skills is a learning experience. The following incident illustrates this point.

A trip to the market that had been planned for buying apples and bananas became a different one. As the children were walking through the market, they were attracted by the shop where the wheat was being ground into flour. The children stopped there. The trip was then spent in seeing the working of the wheat grinding machine.

**After the Trip**

The trip should be used as a base for continued learning. Back in the preschool, encourage the children to talk about the trip. Ask them about their feelings—what they liked or disliked, what they found interesting and if they found something unpleasant. As children describe their experiences, it will help develop their vocabulary and exercise their memory. This also helps develop the skill of evaluating. Besides, a discussion always clarifies concepts and strengthens one’s understanding.

Sometimes, the experience may be such that after coming back you can help children dramatize the events that they saw. After the visit to the construction site, for example, the children spontaneously added elements of what they had seen to their play. Three children while playing with blocks began to build a house. They had done this before many times but this time their play was more elaborate, with aspects of what they had seen at the construction site added to it. One child carried a few blocks on his
head, bringing ‘bricks’ to the site. The second child had a long stick in his hand and was rubbing it against the blocks that were piled up as a ‘wall’. On being asked what he was doing he replied: “I am joining the bricks with one other.” A third child was acting the overseer, instructing the other two.

During the trip, if you question the children about what they are observing, their ability to reason will be strengthened. Questions like: “What do you think will happen if the potter mixes more water in the clay to make pots?”, “Is it necessary to water the plants?” or “Let’s find out what the postmaster does if a letter has no stamp on it?” can set children thinking. We will talk more about the use of questions in the later part of this Unit.

Let us join Kamla and the children in the bus as they return from the poultry farm.

The children were talking about what they had seen at the farm. Two children sitting near Kamla started talking to each other.

Launi—“The hen is not a bird.”
Ramu—“It is a bird! Aunty said so.”

At this point Kamla joined them. She asked: “Why do say that hen is not a bird, Laxmi?”

Kamla—“It does not fly”
Ramu—“It flies! I saw! I saw one hen fly!”

Kamla—“Laxmi, didn’t you see the hens fly?”
Launi—“No! Hens do not fly!”

Kamla decided to talk about birds to children the next day. She got a few books on birds to the centre—she had two books with her and she borrowed some from the library of the primary school in the village. The books had pictures of birds, their nests and living places. She gave these to children. There were shouts of recognition as some familiar birds stared out of the pages. The unfamiliar and fascinating birds interested the children greatly.

Since the objective of this activity was to bring out the characteristic features of birds, Kamla directed the conversation in the following manner.

Kamla—“Tell me, how can we say that a certain thing is a bird?

Some children—“Those that fly.”

Kamla—“Yes! A bird is that which can fly. Do you know how are birds able to fly?”

She waited for the children to answer, then repeated her question but no one offered an explanation. She continued: “Birds are able to fly because they have wings. You see crows, sparrows and parrots every day—do they have wings?”

Children—“Yes they have! And they fly like this!” (making the action of birds flying.)

Kamla—“When we went to the poultry farm, did anybody see the hens fly?”

Most of the children had seen the hens fly and they said so. Besides children had seen the hens in their village and were familiar with them.

Laxmi, however still insisted that hens did not fly. Kamla realised that she would not accept that hens fly till she saw it herself. She left the discussion at this point, making a note that this would need to be dealt with in a different way. To Laxmi she said: “O.K. We will go to see the hens again and we will find out whether or not they fly.”

Then she carried on the conversation: “Tell me, what do these birds have in common?”

The children looked at the pictures of birds. There were some whispers, some laughter and some “I don’t know’s”. Then one child said: “All of them have eyes.”

Kamla—“Yes, you are right! Do they all have legs?”
It is here that she got into trouble because she had not anticipated what may happen. The children, who were looking at books, came up with different answers, depending upon whether one leg was visible or two or neither!

Children—“One!”, “Two!”, “This bird does not have legs!”

Kamla explained that all birds have two legs, but that they could see only one or neither in some of the pictures because of the way the pictures were taken. However, she realized there was a better way to help children understand this. She asked the children how they would like it if she got some birds into the class. The children’s response was enthusiastic.

Kamla had a pet parrot. On her way back from the preschool she bought two other caged birds from the market. You can well imagine the children’s delight when they saw her bringing the three birds to the centre the next day! The discussion about the birds became more meaningful now, for the children could look at the birds and reason how they were different and what features they had in common. Besides this, they wanted to feed the birds and came to know what each bird ate. By the end of a week, many children could identify the birds by the sounds they made. During their play time they would crowd around the birds, discovering something new about them each time. New words and concepts were learnt in this way. A discovery that surprised most children was that the birds had no teeth.

Through this episode you have seen what concepts can be imparted to children as well as the method of doing so. There are some birds which cannot fly and Kamla was aware of that. However, there will be time enough for children to learn later that there are exceptions to the rule that all birds fly. You have also seen how to conduct conversations with children. Let us draw some general rules from this episode.

22.10 LEARNING BASED ON CONCRETE EXPERIENCES

This means that, whenever possible, learning should be based on actual experience with real objects i.e., it should be related to children’s environment. This aspect becomes clear when you read that Kamla was able to communicate more effectively with children when she brought real birds into the classroom instead of only using pictures. Involving children with the things in the environment and relating learning to what they experience is more effective in developing cognitive abilities.

The following account also brings out clearly that when one does not relate learning to the environment, then the learning is not enjoyable and children miss out on many aspects. This is an account of how Parvati, working with a group of 3-4 year olds, introduced the concept of colour to them.

Parvati initiated the activity in the following manner. She drew the children’s attention and said: “Now children, we will learn about colour.”

She had with her plastic rings of five different colours mounted on a stick. She took out the first ring, held it up for the children to see and asked: “What colour is this?”

Most of the children responded in unison: “Red.”

Parvati said: “Yes! Red colour.”

Then she put this ring on the table, took out the second ring and asked: “What colour is this?”

Some children said: “Green!” and there were some who responded “Blue” and “Yellow”.

Parvati ignored the responses “blue” and “yellow” and said: “Yes! Green! This is green colour.”

By this time some of the children lost interest in the activity and started conversing with each other. Parvati continued with the activity and repeated the same question with the
remaining three colours—orange, yellow and blue. The children, those who were still listening to her, responded as they had in the earlier two cases and the activity concluded. On being asked later she said that she had always “taught colours in this way”. From her manner of conducting the activity it was clear that she had carried out this activity earlier and the children seemed to know what she expected.

By now you have some idea about how to conduct activities with children. What do you have to say about Parvati’s manner of conducting the activity? After noting down your comments, match them with the discussion that follows.

Firstly, Parvati’s approach was restrictive. She conducted an interrogation, not a discussion. Her questions did not stimulate the children to think, reason or deduce or apply their learning to new situations. Her questions simply tested their memory. She could have made the learning more enjoyable and stimulating had she asked questions like: “Who are the children wearing a red dress today?” or “All those children who are wearing red shoes, raise your hands!” or “What things around you are red in colour?” Such questions would have fostered children’s skill of observation and they would have generalized the concept of colour to more objects. If Parvati had pointed out different objects of red colour in the room, the children would have also realized that there are many shades of red. In this task, both generalization and discrimination would have been involved.

Secondly, Parvati’s manner of conducting the activity did not involve the children. The children started to look at other things, not listening to what she was saying. And despite repeated efforts, with statements like: “Look here! Anil!”; “Sit down Sunita!”, she could not get them to attend to her. This is not surprising as her approach had no connection with the real world. There is so much colour in the world around us—there are flowers, fruits, vegetables, clothes, and toys—that is a pity that the best Parvati could think of was plastic rings!

Thirdly, Parvati ignored the fact that some children had not been able to develop a concept of colour despite the fact that she had carried out this activity many times. She made no effort to address those children who gave a wrong name for a colour.

This discussion highlights a point that has been made earlier—that the learning can be kept a part of real life, and therefore will be more enjoyable, if one derives the play activities and discussion topics from the children’s interests. Kamla based her activities on what interested the children and, therefore, she was able to get greater involvement.

22.11 CONVEYING ENTHUSIASM

You yourself must be interested and involved in the activity you are carrying out with children. This is, in fact, the crucial element which makes the difference between a good play activity and an unsatisfactory one. A caregiver who is interested and enthusiastic about learning, communicates this energy to children. Learning then become an enjoyable experience for them. Enthusiasm and excitement are infectious and children can sense them.
Whether or not an educator is enthusiastic is clearly evident from the way she plans her activities. An interested educator will think of different ways of helping children understand a concept, use a variety of play materials and have discussions with children. She will feel the joys and disappointments of children. Her face will be expressive and the tone of her voice friendly. In such an atmosphere, children will be stimulated to think and will ask questions. After reading the accounts of Kamla and the children, one can make out that Kamla is an involved and an enthusiastic preschool worker.

In the subsequent days Kamla carried out some more activities around the theme of birds and nests. She and the children made a collage around this theme. Children’s paintings reflected their interest in birds. Many children while working with clay spontaneously made birds. Kamla collected two rhymes around these themes and involved the children in singing them. However, we will not go into the details of these activities.

For the purpose of the discussion, we will describe to you another activity carried out by Kamla to help children understand some concepts about water. We will contrast her method with that used by another educator, Alwina, to impart the same concepts.

Read the following two accounts to study how the teacher’s approach can make a difference to the way an activity progresses.

Account 1

Alwina had a bucket of water, some glass tumblers and a box of paints. She had planned to show the children how water takes on the colour of the paint that is added to it.

The children were seated in a semi-circle in front of her. She took some water in a tumbler and said: “Now children, see what happens when I mix red colour in the water.” As the water turned red, the children exclaimed and she said: “Look the water has become red!” She continued: “Now what will happen when I put green colour in the water?” She paused for a few seconds only and rushed on to say: “It will turn green, won’t it? Raju what will it become? (addressing him because he was looking out of the window). It will become green.” She demonstrated this to children.

After doing the same with two more colours, she concluded: “So you see how water takes on the colour of the paint that is added to it.”

Some children nodded, some kept quiet and some boisterous ones said loudly: “Yes, teacher!”

Alwina then collected a few objects from the room—a piece of chalk, a pencil, a small iron rod and a piece of wood. “Now children see, some of these will float in water and some will sink,” she said.

She put the objects into the bucket one by one and remarked: “See! This one floats” or “See! This one sinks!”

After this experiment she concluded the activity and asked the children to play outside.

Account 2

The children had been playing outside and they came back to find that on each of the four tables in the room there were glass tumblers, paints and brushes. Some children began to play with the water; some came up to Kamla and asked: “What are we going to do with water? Can I play with it?”

Kamla responded: “We are going to play with water and do some magic. I’ll tell you if you listen to me!”

By this time everyone had come into the room. There were exclamations and questions when they saw the things on the tables. Kamla brought order to the group, and seated herself where she would be visible to all.

“Have you ever tried to mix different colours in water and see what happens?”, she asked.
When no one answered she said: “Okay! Let’s find out what happens. Here, I take some red colour and mix it in water.”

As the water turned red some children exclaimed: “Look! The water has turned red.” An alert four-year-old remarked: “Oh! This has become sherbet. I drink such a sherbet at home.”

Then Kamla addressed the children: “Now you mix red colour in the water and see what happens.”

There was one tumbler and four brushes for a group of four children. As each group experimented they reported their results; “Oh! Look! Mine has turned red.”, “Mine also.”

Kamla asked them to throw away the water into a bucket placed nearby and pour fresh water in the tumblers. Then she asked the children to “mix green paint in the water and see what happens.”

Even before doing so, some children responded: “It will become green.”

After this there was no stopping them. They dissolved the colours in the water one by one. Kamla, you would have noticed, did not dominate. She went across to each group, seeing what they were doing and setting things right, if there was confusion. One child asked her: “Aunty, what will happen if I mix two colours together?”

Kamla responded: “Why don’t you do it and see what happens?” Their minds stretched with possibilities now, the children started mixing different colours together in water. This was a completely new experience for them and they experimented with different combinations, showing the various colours to each other.

After this activity had gone on for about ten minutes, Kamla took charge again. “O.K. Now let’s put the colours away and I will show you another game.”

Kamla had collected some objects—a wooden block, a chalk, a pencil, and an iron block. She asked the children: “When I put this wooden block in the tub, do you think it will float or sink?”

The responses were varied. Kamla continued: “Let’s put it in and see.”

The wooden block floated on water bringing shouts of “It is floating!” from those who had predicted that this would happen.

Then Kamla asked one child to put the pencil in the water. Predictions were made again and then verified, as the child put the pencil in the tub. This was repeated with the remaining two objects. By now each child wanted to put something in the bucket. Kamla asked them to collect as many things as they could. The children ran outside and soon there was a pile of leaves, twigs, pebbles, stones, paper and nails. Each of these was put into the bucket to see what would happen to it. After sometime one child got the idea of floating paper boats in the bucket and the rest of the time was taken up in making paper boats.

What do you have to say about the way the two teachers conducted the activity? Note your comments in the space below.
The contrast between the two situations is clear. Alwina’s style was limiting and it is quite likely that most children did not get a feeling of having an exciting learning experience. Kamba’s approach enabled children to experiment and discover for themselves. Let us talk about the aspects that emerge from these two accounts in the following sections.

22.12 HELPING CHILDREN DISCOVER

In all activities, the effort must be to help children find out the answers for themselves, to discover. Can you say why it is important to do this?

Each time the child figures out an answer by herself, her thinking is fostered. She gains confidence and independence. Of course, sometimes there is no way children can know about something unless they are told. For example, children cannot on their own know the names of objects. But generally, if one asks the right question, children can discover and think through an idea on their own. If you adopt the following two strategies you can help children to discover.
Play Activities for Preschoolers-I

1) Encourage children to ask questions

It has been said that the best school is not the school where the children know the most answers, but the school where the children ask the most questions. When the child asks a question and finds out the answer, that learning is more permanent than when the teacher provides answers to questions. When a child’s question is not clear, ask her to repeat or rephrase it, instead of ignoring it.

b) Use children’s questions to help them learn

Often in reply to a child’s question, you can ask another question, which will help the child to figure out the answer herself. If you re-read Account 2, you will find that when a child asked Kamla what would happen if she mixed two colours, Kamla responded by asking her another question, which made the child try it out herself. Answering the ‘question with a question’ tends to foster reasoning abilities. One needs to be alert to situations which allow children to find out things for themselves.

When posing a question to children, keep the pace slow and wait for them to reply. Often in our hurry to go ahead with the discussion, we pose a question and then, without waiting long enough to let children answer it, give the answer. Instead, if one waits, it stimulates the child to think. While working with children we can ask two types of questions.

i) Those that focus on facts—These are descriptive questions that ask children to describe an object or an event. Some examples of such questions are—“How many legs does it have?”, “What is its colour?”, “What does it eat?” In other words, these are questions that focus on learning facts and information.

ii) Those that promote thinking and reasoning skills—Some of these questions require children to give explanations for why things happened the way they did. These are usually ‘why’ questions—Why did the clay become hard when we put it in the sun?, Why did the snail go into the shell?, Why did bubbles form in water? Through these questions children make guesses and learn about cause and effect relationships.

They may also be questions about what action can produce a certain result, such as—How can we build a tall tower with blocks so that it does not fall? These are usually “how” questions.

They may be questions that ask the children to compare, such as—Are these two animals the same? Which cup is exactly like this one? How is this flower different from that one? or What do they have in common?

They may be questions that encourage children to group things in different ways—How many different coloured flowers are there? Arrange all flowers of the same colour together. As children are involved in making houses in the sand, you can ask: “Which is the tallest house?”

All these questions can be incorporated into the activities that children do.

22.13 ENCOURAGING REASONING SKILLS

The aim of preschool education should be to help children use facts to practise thinking and reasoning skills. There is a difference between simply teaching facts and teaching children to use these to think and reason. In most preschools the former is what happens—the teacher gives information to children, expecting them to memorize it. It is important that children know some facts. Facts are useful but they are not an end in themselves. Rather, they should form the foundation upon which the mental abilities of reasoning, problem-solving and deduction should be based.

Recall the different methods used by the two educators to talk about water. Alwina simply communicated certain facts to children, while Kamia helped the children to reason, analyse, generalize and deduce, apart from giving them facts about water. Kamia’s approach, while making children aware of their environment, contributed more towards fostering cognitive abilities. When children put objects in water and see some of
them floating and some of them sinking, they have acquired some facts about these objects. But then the teacher who asks: “Why does the paper float and the pebble sink?” or “What is common to paper, a dry leaf and a twig that makes them float?”, is asking children to put facts together to deduce an answer. Children will probably answer in terms of weight i.e., light and heavy.

There are many day-to-day situations which an alert caregiver can use to help children develop analytical abilities. Working with clay a child once mixed more water in it than was required. The clay would no longer hold together and the children could make nothing with it. The caregiver asked questions; which focussed the children’s attention as to why this had happened—“Why can’t we make anything with clay today?” “Why has it become so thin?” “Can we make it hard again?” The last question led to many interesting experiments. One child suggested that they should squeeze the water out. The entire group began the squeezing operation, which was fun no doubt, but it could not get the water out. After some more discussion and debate it was decided to leave it in the sun. This then became the focus of the day’s activities. At intervals, children would check how much of the water had dried up.

In the sub-section 22.16 you will read some more examples of the play activities that will further children’s understanding of the environment and, besides providing facts, will strengthen their reasoning skills. In the earlier Block you had read about preschoolers’ abilities of matching, finding common relations, grouping, seriation, ordering and understanding cause and effect relationships. Through the play activities described in the sub-section 22.16, you will also come to know how these abilities can be fostered.

Check Your Progress Exercise 2

Answer the following questions briefly in the space provided below.

1) Do you think that taking children out on trips helps in their learning? Give reasons for your answer.

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2) You have read how Parvati organized an activity related to colours. If you had to impart the concept of colour to children, how would you do so?

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3) You have read that you can ask children questions that focus on facts and those that will help them to reason and analyse. Supposing you are talking to children about the different kinds of vehicles, for example, a cycle, a bullock cart, a bus, a car and a ship. Write down the questions that you will ask them during the activity that will focus on facts and those that will foster reasoning skills.
Let us read an account of activities in another preschool centre located in a village by the seaside.

Rehman, the teacher in the preschool centre, collected different types of sea shells and arranged them on one table in the room. He also placed some clay nearby. During the day, children would explore these shells. There were many questions and Rehman would respond to each child as and when they asked the questions—"What are these?" "Where are they found?", "Why are they of different shapes?", "How is it that some of them are closed?", "How many different types of shells are there?" The shells also provided opportunities for grouping, seriating and matching as children looked for one "that is just like this one", and put shells of approximately the same design or colour into separate groups. On another occasion, while making objects with clay, children spontaneously used these shells to decorate the objects they had made. They pressed the shells onto flattened clay and created designs. They also pasted shells on a collage they had made earlier. In this way, Rehman had set up a discovery corner.

22.14 SETTING UP DISCOVERY AREAS

A ‘discovery corner’ is an area of the room where you can place some material that would interest the children and that would lead to discussions and experiments. A discovery corner is an effective way of encouraging children to explore more about the world around them. It provides opportunities to ask thought-provoking questions, fosters problem-solving skills and helps children to learn facts. Here children can carry out simple experiments and make observations. It introduces them to the scientific method which involves making observations, thinking of possible reasons why things happen, testing these reasons, observing the results and drawing conclusions. When Kamla had brought the three birds in the room and placed them near the nests children had made, she too had set up a discovery area.

A discovery corner can contain anything that you think the children will find interesting. You could put together leaves, flowers, twigs, small branches, pebbles, and sand in one area. This could lead to discussions. One interesting activity related to such a discovery corner could be to ask the children to go outside and find out from which plant a particular leaf/flower has been plucked. This will help to develop children’s attention to detail, as they match one leaf with another. You could ask them to look up the different leaves in a book and find the picture of the leaf which goes with the real leaf. This is a good activity for understanding common relations.

The discovery area should generate questions such as “What will happen if...?”, “What made that happen?”, “Let’s try and find out?” “How did you figure out...?”

Can you think of some things that you could place in a discovery corner?
The various episodes described in this Unit would have given you many ideas about the play activities you can carry out with children as well as the manner in which they should be conducted. In the earlier Unit too you read about some indoor and outdoor play activities. Let us now read about the principles that go into planning play activities. The discussion which follows holds true for any play activity that you may want to organize—whether it be an outdoor team game, a story, music or art activity.

Before planning any activity you must decide:

1) What is it that you want the children to learn through that activity, i.e., what is the **goal** of your activity?

2) How will they learn this, i.e., what will be the **content** of your activity?

3) What **material** you will use to carry out that activity?

4) How will you find out whether or not the children have reached the goal, i.e., **evaluate** the usefulness of the activity?

Let us look at each of these aspects one by one.

The **goal** of an activity can be, for example, that ‘Children will have gained an understanding about some animals’ or ‘After this activity children will know some ways in which the parrot and the sparrow differ’, or ‘Children will enjoy making greeting cards,’ or ‘Children will gain some understanding about colours through this rhyme’, or ‘Children will play in the sand with each other.’ A goal, therefore, means that after the particular activity, children will be able to name, identify, construct, solve, select, compare, understand and so on.

Before selecting the **content of the activity** think about:

a) What do the children already know about that topic. In other words, you must assess the present level of knowledge of the children, so that you can build you activity upon it. You can know this by observing children, asking them and listening to them.

b) Is the content of the activity realistic i.e., will the children understand the concept? Is it suited to their level of development?

c) Is the concept something worthwhile for children to learn at this stage or will it be better to wait until they are older? Is it something that children will learn better and more easily later on?

The activities that you choose should:

- Give children an opportunity to think. Children should be able to relate the activities to their past experiences and the future ones.

- Offer a challenge, but also be ones that children can successfully achieve. This will give them emotional satisfaction.

- Be of interest to them and relevant to their lives. In this way there will be personal involvement.

Assessing this last aspect is very important. The aim of preschool teaching is not, and should not, be to accelerate cognitive development. There is a tendency in many of us to become anxious about this, worry that our child may be left behind and so push her into activities before she is developmentally ready. Pushing the child to learn more and more things at progressively younger ages is something which the preschool worker must guard against.

While planning the activity, check to see whether or not you have the **materials** needed for it. Do you need to get something, how expensive is the play material, is it safe for children to play with?

After conducting any activity, it is important to find out whether or not children have grasped the concept. This will help you to know whether the activity you chose was useful and whether your method of organizing the activity was appropriate. This means
you must evaluate the activity. There are many ways through which you can judge whether children have understood the concepts. Some of these are:

a) After the activity is over, carry out a discussion. You can ask questions based on the activity.

b) Ask the children to recall the sequence of events in the activity. In an activity related to growing plants, for example, you can ask the children the sequence in planting seeds.

c) Carry out art activities through which you can find out what all the children have grasped. For example, after talking about the festival of Diwali, one educator asked the children to draw something related to this theme.

Children’s drawings reveal a lot about how they perceive and understand events. The following is a drawing by four-year-old Anirban depicting an earthquake. Notice how he has drawn the houses a little tilted. On being asked he said that the “houses are shaking and people are looking out of the windows in fear.” (In the drawing the people are represented by black circles like these—●)

d) Draw the sequence of events on small cards and ask the children to arrange these in the correct order. For example, after making fruit chat in the centre, you can draw the various steps in making a fruit chat on different cards. Give these to the children to arrange in a sequence.

In this way not only do you judge children’s understanding but this becomes a new activity in itself, which children enjoy and which reinforces their learning.

Can you think of some other ways through which you can find out whether children have understood what you have been teaching? You will read more about evaluating children’s learning and evaluating whether or not an activity is appropriate in Unit 33 of Block 7.
Thus to help yourself in planning an interesting activity, write out an activity plan. An activity plan is a sort of mental preparation for you. An activity plan states

a) the goals and objectives of the play activity  
b) the content of the play activity  
c) the materials you will use  
d) the criteria to judge whether or not children have grasped the concept.

For carrying out play activities with children, one must think like a child. In some cases you may need to read some books before you carry out an activity with children. For example, when talking to children about shadows, you may need to read upon that topic so that you can answer their questions.

22.16 SOME PLAY ACTIVITIES

One way of helping children know about their environment is to select one particular aspect and organize many activities around it. In other words, organize activities and experiences around a single theme, as Kamla did. Children must come upon a concept in different ways before they fully understand it. These different activities that you organize around a single theme may be spread over a period of a few days.

We will now describe some play activities through which you can help the children know about their environment, the living things and their culture and society. Do you remember reading about these three categories in the introduction to the Unit?

A) PLAY ACTIVITIES AROUND THE THEME—‘MY BODY’

The following are some play activities you can carry out around this theme. With each play activity we have stated the goals and the content of the activity and the materials required.

Activity 1

Goals — This activity will help develop

a) awareness about some parts of the body  
b) eye-hand co-ordination  
c) number concept  
d) the ability to relate the drawing to the actual object

Materials to be used — paper and pencil.

Content — Tracing one’s hand and foot on paper and colouring the same. Not only do children enjoy doing this activity, but you can also impart number concept as you ask them to see whether they have drawn as many fingers as they have on their hand. Sometimes in their hurry to trace, children do not use all the fingers. Initially you may not insist that children trace each finger exactly, but if you subsequently do so, children will follow the exact contours of the fingers. This will foster eye-hand co-ordination as well as strengthen their concept of one-to-one correspondence i.e., Number concept.

Activity 2

Goal — To strengthen children’s concepts of up, down, forward, backward, left and right, through a game centered around the different parts of the body.

Contents — Stand in a circle with the children and ask them to do what you say. As you say: “Lift both your arms up”, “Put the right leg forward”, children must do as required.

Activity 3

Goal — To become familiar with the different parts of the body.

Materials to be used — newspaper, crayons.
Content — One preschool teacher planned an ingenious activity to strengthen children’s understanding of the body. She took a big sheet of newspaper and asked a child to lie down on it. She then asked the others to trace the outline of this child’s body. This done, they made the features on the face and drew the clothes on the outline. Then began the colouring, with each child colouring a certain part of the body. To avoid confusion, the teacher had formed three groups of six children each. She moved from one group to another, helping the children and answering their questions. Later she asked them to name the different parts of the body and labelled them. These drawings were later put up on the walls.

Activity 4

Goal — To create awareness about hygiene.

Materials to be used — a doll, soap, a clean piece of cloth, water, mug, comb, neem stick, a small part of an old saree.

Content — To bring in the concept of bathing, brushing the teeth and keeping the body clean, one teacher planned an interesting activity. On seeing a doll lying abandoned in a corner, she thought of an activity. She asked the children: “Would you like to give the doll a bath tomorrow?” There was instant agreement. She carried on the conservation: “If we want to bathe the doll, clean her up and dress her, what will we need?” As the children spoke, she wrote down the items — soap, towel, water, mug, clothes, comb and a neem stick. The next morning she kept these things ready. The towel was substituted by an old, but clean, rag and the clothes by a colourful piece of saree. There was great excitement as children scrupulously followed the routine of cleaning and bathing. Each
child did something—one brushed her teeth, another rubbed soap and so on. As they were bathing, the teacher talked about the importance of hygiene and cleanliness. The activity generated so much excitement and interest that children often talked about it in the days that followed.

Activity 5

Goal—To sharpen skills of observation and develop a firm concept about the body.

Materials to be used—a large sheet of paper, crayons.

Content—You can draw the figure of a person on a large sheet of paper with some parts of the body missing. Place this paper in the centre of the group. Ask each child to name a part that is missing and to draw it. Give each child a turn.

Activity 6

Goal—to help children express themselves through drawings.

Materials to be used—paper, crayons.

Content—You can sometimes ask children to draw around a theme. “Draw yourself” is an interesting theme. Try this activity with children. You can ask the children to describe what they have drawn and write their response on the drawing sheet.

Activity 7

Goal—to help the children to compare and to give them an elementary idea about measuring.

Content—Children can measure how tall they are by standing against a wall and marking their height. They can compare heights in this way.
You may be able to think of more activities related to the body. You can write them here and try them out with children when you get an opportunity.

B) COOKING PROJECTS

Surprising though it may seem, children love to make something to eat. These activities are popular as children can eat the food they have prepared and are able to relate the activity to other experiences they have had at home.

Cooking projects need not involve using the fire or electricity. Squashes, lemonade, fruit chaat and salads are easy to make. You can ask the children to get one fruit each from their homes (you will have to write a note to the parents telling them why you want the fruit). Involve each child in making the dish. Children should not merely watch as you make the dish. You must find ways to let each child stir a little, pour a little, carry the pan or add the salt.

After the food has been eaten, encourage children to discuss the sequence of its production. This will foster the skill of ordering events as well as will help you to judge whether or not children have grasped what they did.

In all such activities, your goal would be to give the children an idea about what is involved in preparing a dish, to help them know that there is a certain sequence to be followed in making an item and to help them relate the activity to their everyday experiences with food. Of course, the most important goal should be never lost sight of—children must enjoy the activity.

C) PLAY ACTIVITIES AROUND THE THEME—'SHADOWS'

It may seem that 'shadows' is a difficult concept to introduce to preschoolers but you are not expected to give them detailed explanations. You can organize the following play activities around this theme.

Activity 1

Goal—To make the children aware that they have a shadow.

It is possible that many preschoolers have not realized that they have a shadow. When you tell them, they are sure to be excited.

Content—Activities like 'Run and see if you can leave your shadow behind' will make them aware of their shadow. Ask them to observe if they have a shadow during the night. Tell them to stand under a light source when it is night and look for their shadow. Ask the children the next day about their experiences.

Activity 2

Goal—To help the children understand that the length of the shadow varies with the time of the day.

Content—Pair the children and ask one of them to trace the other's shadow. After they trace, write down the child's name on it. You can ask them to trace the shadow at different times of the day and compare the lengths of the shadows. Through discussion you can point out how the length of the shadow changes at different times of the day.
Activity 3

Goal—To draw children’s attention to the fact that the shadow does exactly what they do.

Content—You have read about a game involving the shadow in the earlier Unit. While playing this game, children stand in a circle around you and, as you give directions, they do as you say such as: “Touch your shadow”, “Step on someone else’s shadow”, “Run with your shadow”. Through such games you can bring out that the shadow does exactly what they do—help them notice that when they raise their arm so does the shadow, when they move their legs, so does the shadow.

Activity 4

Goal—Experimenting with shadows

Content—Show children how they can change the shape of their shadows by changing the way they stand or sit and by moving their arms and legs. In this way, they find out what kind of shadows they can make with their body.

If you cast the shadow of your fingers on the wall and position your fingers differently each time, you can cast different shadows on the wall. These often appear like animals. Children would like to do the same. You can build a story around these animals.

Activity 5

Goal—to help children find out whether all objects cast shadows.

Content—Ask children to collect some objects and see whether all of them cast a shadow. When you ask children such a question, they will experiment, which will lead to a more stable learning than when you tell the children the fact that objects cast shadows. Children can make shadows with boxes, toys, books, paper, pencil and blocks.
D) **PLAY ACTIVITIES AROUND THE THEME—'DAY AND NIGHT'**

**Activity 1**

Most preschool children are familiar with the words 'day' and 'night'. For them, by and large, night is characterized by sleeping, and day by coming to the school and so on. You can build upon these concepts. Ask them what the different activities are during the day and what do they do in the night. You can ask them what others in their family do during the day and at night.

**Activity 2**

Four and five-year-olds will be able to observe differences in the sky during the day and night. Talk to them about these differences and help them to speak about them. The discussion can lead to things that happen during the day, the things that they see during the day and those that they see at night.

**Activity 3**

You can involve children in a group activity in the following way. Organize this activity after you have had some discussions on this topic. Take two large sheets of paper and title them 'Day' and 'Night'. Make drawings or paste pictures on small cards that depict things that happen/things that one does during the day and night. (You must make these cards beforehand so that they are ready for children's use as they do this activity.) Keep these on the table and ask the children to paste the appropriate pictures on the two charts. You may have to show them how to do it. This, besides strengthening their concepts of day and night, will also foster skills of grouping. You can ask children to draw on these charts as well.

In the three activities described above, we have not stated what would be the goal of the activities. After having read these activities, can you state what would be the goal of each of these activities?

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E) **PLAY ACTIVITIES AROUND THE THEME—'PLANTS'**

Children have a keen interest in the plant life around them. You can build many activities around this.

**Activity 1**

**Goal**—To introduce children to the concept of how a plant grows from the seeds.

**Materials needed**—pulses, cotton, a small dish, pots, mud, manure, water

**Content**—You can start a project of growing plants in the room. You can bring some pulses and place them on a wet cotton placed in a dish. Talk to the children about what you are doing, why you are doing it and what they will observe after two or three days. Keep the dish in a safe place where the children can examine it when they want to.

The next day ask children to observe if there have been any changes in the pulses. After two or three days, the pulses will sprout. This is likely to generate considerable interest and you can follow it by actually planting seeds in a pot.

You can give a small pot to a group of 5-6 children. Help each group fill the pot with mud and manure, sow the seeds and water them. Place the pots in the sun. If you do
not have many pots, you can plant the seeds in a flower-bed in the open area. Children enjoy this activity and the potted seeds become a focus for many days to follow. They will observe the seeds each day to see if they have sprouted. Regular watering of the plant must go on. Draw their attention to the new leaves that come and that the plant is becoming taller. Some plants if placed directly in the sun may wilt. Through this activity concepts like 'plants need water to grow' can be developed. You do not have to go into the details of germination. That can be left for later years.

The activity gives a lot of emotional satisfaction as children have actually participated in growing something.

Activity 2

Goal—To help develop skills of observation and make children aware of the different kinds of leaves.

Materials needed—leaves and flowers.

Content—Ask children to collect leaves and flowers. Discussions about the different kinds of leaves, why some are green and some yellow, some big, some small and their different shapes can follow.

Activity 3

Goal—To improve fine motor skills.

Materials needed—thread, leaves.

Content—You can help children string the leaves together in a thread and make 'necklaces'. These can be hung on the walls or used for play.

Activity 4

Goal—To show the children an alternate way of painting.

Materials needed—Leaves and paper.

Content—Leaves can be used for painting. Show children how they can colour one side of a leaf and then take its imprint on paper. When they use many leaves, they will observe that each leaf leaves a different shape on paper. They can make numerous designs in this way.
F) PLAY ACTIVITIES AROUND THE THEME—'SEASONS AND WEATHER'

This is a topic around which you can plan numerous activities. Perhaps a particularly cold day or a rainy day can stimulate a conversation about the weather.

Seasons can become a project which continues the year round. Talk to the children about the different types of flowers that grow in different seasons. As you go on a walk, ask children to collect some flowers. These can be dried and preserved. If you do so in each season, by the end of the year the children will have a record of the type of flowers that grow in different seasons. Talk to the children about the weather in different seasons and the type of clothes we wear. Can you say how these play activities will help children? In other words, what would be the goal of these activities?

There are many rhymes around this theme. Many art activities can be planned around this topic. Can you think of any?

Reading these activities, as well as the ones Kamla carried out with the children, would have given you an idea about how you can plan activities related to the environment. The activities described in this Unit are guidelines. There is so much to know in the world around us, and children are so eager to explore, that an imaginative and a creative educator can devise numerous activities that will strengthen children's understanding of events and things around them. At the beginning of the Unit we listed some concepts around which you can plan activities. Can you think of some activities that you can plan around them? What will be the materials that you will need? What other environment-related concepts can you impart to children? Make a list of these in the space provided below and briefly write about the activity you will carry out. You can use the blank pages at the end of the Block as well.
Check Your Progress Exercise 3

Answer the following questions briefly in the space provided below.

1) What do we mean by ‘discovery areas’?

2) What is an ‘activity plan’? What all does an activity plan state?

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22.17 SUMMING UP

In this Unit you have read about the play activities that can enhance children’s awareness about their environment. The play activities will foster scientific thinking in children and through these you can introduce them to certain concepts of science. They will also foster the development of cognitive abilities.

While planning play activities, you must ensure that they are relevant to children’s interest and ability. If you build an activity around children’s interest, it is likely to lead to permanent learning. You must be open to unexpected learning opportunity and utilise the “teachable moment”. Guard against loading the children with too much information at one time. Your interactions with children should be in the nature of a dialogue rather than a lecture.

Trips interest children greatly and generate an interest in the things around them. A well-planned trip can lead to many learning experiences.

Children’s feelings are as important as learning. Be responsive to children’s moods and feelings and help them to deal with them. When you ask questions and stimulate children to think, you help them to discover things for themselves. The educator’s approach while carrying out the activity can make all the difference. Encourage children to ask questions and reason. Setting up discovery areas is one way of doing this.

Before planning a play activity, you must be clear about the goal of the activity, its content and the materials you will need. Some of the environment-related concepts around which you can plan play activities are seasons, weather, day, night, hot, cold, heavy, light, sun, moon, clouds, rain, snow, fruits, vegetables, plants, birds, animals, people in different occupations, climates and cultures, festivals, the market, the fair and modes of transport.
Check Your Progress Exercise 1

1) While playing with adults or with each other, children find out about many things. If you are attentive to their conversations, you can know about some concepts they learn in this way.

2) This is important because if the learning activity is too tough for children, they are likely to experience failure. This will discourage them. If the activity is too simple, children will lose interest in it.

3) a) Agree
   b) Disagree

4) To get a greater involvement you must:
   — built an activity around what interests children
   — ask questions
   — create an atmosphere of a dialogue rather than that of a lecture by being careful about the type of words and sentences you use.

Check Your Progress Exercise 2

1) Trips give the children a first-hand experience and this leads to a more permanent learning. The experience of the trip can be used as a base for later learning. As children describe their experiences during the trip, it helps to strengthen their vocabulary and memory and the skill of evaluating.

2) Imparting the concept of colour can be a part of many other activities. As you are preparing a vegetable salad, talk to the children about the colours of the vegetables. During outdoor play or on a trip, you can draw children's attention to the colours of flowers. You can colour cards with different colours and ask the children to identify objects around them which are of the same colour as a particular card. In the next Unit, you will read more about imparting the concept of colour.

3) Questions based on facts

Questions to promote reasoning skills

1) How many wheels does it have? 1) Which—a car or a bus—can carry more passengers?
2) What is the name of this vehicle? (as you show a picture of the vehicle) 2) Which will take you to your destination faster—bus or cycle?
3) Which of these moves on water? 3) You can draw the vehicles on separate cards with some part missing, for example, a wheel. Ask children to draw the missing part.

Check Your Progress Exercise 3

1) A discovery area is a place in the room where one can place some interesting material that will stimulate children to think and lead to discussions and experiments.

2) An activity plan is a guideline that will help you in organizing an activity. It should state
   — the goal of the activity
   — the content of the activity
   — the materials to be used
   — the ways in which you will evaluate whether children have grasped the concept.