Nature Around Us | Leaves to Trees

Nandini Shetty

Children are naturally curious about nature. We can see them enjoy playing with dogs, cats, and cows and look at plants and trees with interest. We can transform this interest into a concern for nature as they grow up. Global temperatures are rising day by day due to increasing pollution and our disregard towards nature and it is necessary to create awareness about nature in children so that they develop a sensitivity towards the environment. As we know, children who are brought up in rural areas naturally associate more with nature and natural life around them than children living in urban areas.

Unfortunately, smartphones have become a major source of entertainment for children - according to the National Commission for Protection of Child Rights (NCPCR) 76 percent of children consider smartphones as their primary source of entertainment. Consequently, they do not know that there are many interesting and curious things to learn about in nature. We need to attract them to nature to cultivate eco-consciousness. Every aspect of nature is interesting and full of lessons and several activities can be organised for every age group. Here I am describing a few of the activities we did with classes II - V, which can be done with children anywhere.

Learning from leaves

Children collected and dried leaves of various trees in their surroundings. Later, they classified simple and complex leaves and pasted dried leaves on chart paper to create a poster. They measured the width and length of the leaves and represented the data on a graph sheet by column mapping, integrating what they learn in maths also.

Learning seed propagation in different fruit

Children collected dried fruits and seeds from various trees around their school and homes. This led to a discussion on the structure of each fruit/seed that was collected and also about the animals and birds who feed on them. We also discussed how fruits/seeds are dispersed by animals and birds. We talked about the features of fruit/seeds that are not eaten by animals and birds, as well as those that are propagated by water and wind. We talked about the role of humans in seed propagation. So, this activity touched upon a bit of biology also.

Observing living organisms on the school grounds

We planned a programme on butterflies found around the school and saw eight types of butterflies. Children wrote down their common names. We taught children about the life cycle of butterflies, and they drew pictures of the life cycle. The children were asked to bring the fallen feathers of birds, unused nests, dead insects, moths and butterflies found in their surroundings and helped in identifying and learning more about these and other common species.

Getting to know trees

Children identified and wrote down the names of common trees found in the school surroundings. We collected flowers, bark, leaves, seeds and fruits of those trees for drying. We identified 50 trees and plants in all and drew pictures using the materials the children had collected.

Our learnings

Children participated enthusiastically in all these activities and did a lot of the work on their own. For example, they prepared posters from the dried leaves that they themselves had collected. They collected feathers of birds (crow, pigeon, and hen), broken eggs of lizards, and exoskeletons of crickets. They even searched for the larvae of Oleander Hawkmoth in the periwinkle (*vinca rosea*) plants, collected larvae, grew them and showed me the moths which emerged. We saw fully grown butterflies from the larvae of common castor butterflies found in the castor oil plant.

What do we achieve through these activities?

Through these activities, we can foster the interest and curiosity of children about nature because they learn how beautiful and full of wonder nature is. This realisation leads them to observe all living creatures in their surroundings. Another big learning is the value of trees and the life each tree

supports.

The most important learning, however, is the interdependence of all living creatures - children learn that the survival of human beings is dependent on that of the other species and natural resources and vice versa. Also, that every single species has as much a right to life on earth as human beings do, which eventually helps them in protecting and conserving their local environments.

Change in outlook

These activities have resulted in children becoming more aware; for instance, they search for insects and eggs in plants and trees. They show them to me and ask for my help to identify their names. If they find larvae in the plants near the school, they put them in paper boxes and feed the larvae leaves. They have shown me butterflies and moths coming out of their cocoons. Now children bring leaves, flowers, and fruits from nearby plants and trees, ask me their names, and give them to me for drying. They themselves try to identify trees and plants by browsing through books and trying to remember their names. They can identify all trees in the school compound.

They take care of the plants in the school compound and if they see somebody plucking leaves or flowers, they object. Even while they themselves are collecting leaves, they only take as much as is necessary, never more.

I have noticed that children learn easily if they come across any learning points related to these activities in their lessons. They can distinguish between simple and complex leaves; they can identify parts of leaves. They can narrate the life cycles of insects as if they are telling a story.

When I began these activities not all children who were involved, were fully interested. As we proceeded, more and more children participated with enthusiasm. All these activities can be done involving all interested children. Each child participates as much as he/she can. Children in classes II and III can be asked to write what they can according to their abilities.

Some pointers

It is better to use books with colour photos to identify butterflies, moths, trees and birds as children love to see pictures. They look up the names of the animals, insects, birds, moths and butterflies by observing every minute detail of the pictures and this is a good practice. If books are not available, we can show them pictures on our mobile phones and computers. A magnifying glass can be used if a microscope is not available. As teachers, we have to use every opportunity we get to create respect for the environment.

These kinds of activities certainly help to develop eco-consciousness in children; not only that, but these activities can also help in cultivating different scientific skills in children, such as observing, exploring, explaining with pictures, thinking, questioning, and logical reasoning. These activities help children to construct knowledge through self-experience.

As the NCF (2005) has recommended, we have to take children beyond the syllabus that is given in the textbooks to create awareness about nature. We have to provide as many opportunities as we can so that they grow into responsible, nature-loving citizens.

Nandini Shetty is a Resource Person at the Azim Premji Foundation and works with government schools in Bengaluru city. She has a Ph D from the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore. She can be contacted at nandini.shetty@azimpremjifoundation.org