

Amphibian Awareness Programme

Gayathri Selvaraj and Mittal Gala*

Amphibian awareness programme was held on the 25th of Feb 2012 at the Vadanemelli Village Panchayat School close to Madras Crocodile Bank Trust. The medium of education is Tamil and the total number of children studying in this school is 25.

The school is situated in a small scrub area where there are lot of small pools and water bodies are abundant with tadpoles and frogs. The idea of the programme in the school was to introduce the concept of amphibians as a part of their daily environs and the role of amphibians and people together in an ecosystem.

We started with an interactive session with the children to assess how much they know about amphibians. This was followed by a presentation. Since the children were between the age group of 4-9, a presentation was made with lot of colourful pictures and cartoons, used mainly to get and hold their attention. The ideas used for preparing this presentation was taken from 'Frogs are a part of our biodiversity' package sent to us by the Zoo Outreach Organization.

Although the presentation was in English it was translated and delivered in Tamil. The kids were told about what amphibians are, the different kinds of amphibians, how are they different from reptiles. We explained that amphibians are unique and important animals as they are older than dinosaurs. Similarities and distinguishing characteristics between frogs and toads were discussed. Life cycle of a frog was discussed and kids were shown how a tadpole looks and how they breathe through gills.

The amphibian's skin and permeability was discussed in detail. Children were told that permeability relates to how easily a gas or liquid molecule can pass back and forth from the environment into animals or from the animals into the environment. In the presentation there were different slides of close-up views of skins of various animals from birds to reptiles and mammals. They were then told how an amphibian's skin is very different and unique because it is more permeable to substances, which can be helpful and harmful at the same time. This concept was supported with a small experiment to understand the concept of permeability.



Pre-discussion before the presentation



Slide - Amphibians are older than dinosaurs

Materials used:

Two boiled eggs (prepared 24 hours prior); Food colouring agent (we used bright red colour); Air-tight Container; Knife

Procedure:

- Two eggs were boiled on the previous day of the activity. We called it as Egg#1 and Egg#2.
- 1 tea spoon of red food colour was added to a container filled with water.
- Of the two hard-boiled eggs, Egg#1 was peeled & soaked in the coloured water, while Egg#2 was left unpeeled and soaked in the same water.

- Next day both the eggs were carried to the school with the container holding coloured water.

The children were gathered and were shown both the eggs. They could see that the Egg# 2 had food colour coated all around it whereas Egg# 1 there were very light stains on the shell. Egg# 1 was peeled in front of the kids. Both the eggs were cut into halves and presented in front of the children.

*Program Manager, Madras Crocodile Bank Trust, Chennai, Email: program.manager.mcibt@gmail.com



Difference in Egg #1 and Egg#2 ; Inset Egg1 peeled in front of class, Egg-2 Food colour penetrated till the egg white



Frog and Toad colouring pages from 'Amphibian- An Art Aark



Leap Race

Results:

- It was observed that the Egg#2 was white inside just like any hardboiled egg and the food colour could not penetrate through the shell.
- Egg#1 however was not only orange from the outside but the colour had penetrated inside.

The kids were asked question like:- What animal do they think would be more affected by water pollution, a frog or lizard? Why? What will happen to frogs if harmful chemicals like pesticides are used by humans? What will happen to the tadpoles if we pollute the water? The kids could answer the above questions correctly and understood the concept of permeability. The idea of the experiment was taken from the AZA site. Please see the link below.

http://www.aza.org/uploadedfiles/conservation/commitments_and_impacts/amphibian_conservation/amphibian_resources/soak_it_up.pdf

The presentation on amphibians continued with more slides on how useful the frogs are and some of the points explained were;

- Frog eat bugs and act as natural pest controllers
- They act as bio-indicators
- Tadpoles feed on algae and keep the water system clean
- They are an important part of the food chain

From 'Amphibian – An Art Aark (Coloring book by Zoo Outreach Organization) we made copies of Marbled Toad, Bi-coloured Frog and Small tree frog for the colouring activity and distributed it to kids explaining them about each species

Towards the end of the programme, the kids were assembled in the playground and were asked to participate in a hopping race, which they readily agreed.

The poster on South Asian Amphibians was left with the teachers for the class.

Madras Crocodile Bank Trust/Centre for Herpetology would like to sincerely thank the Zoo Outreach Organization and Amphibian Ark team for providing us with the Amphibian packages and all the support to make this program a fun and successful event. We would also like to thank 'Association of Zoos and Aquariums' (AZA), in providing ideas, which made the programme interesting and educative.