Understanding students’ prior knowledge - introducing snakes

The session started with an exciting discussion where students were encouraged to share their experiences with snakes. Many instances of snakes being spotted at homes and schools, frightening people, and in some cases, the snakes being killed were shared by students.

Then I asked the students to describe the appearance of snake and its food habits. Children described the long, slender and slippery scales. They also elicited how the head of the snake is tapering with a long fork shaped tongue. One of the students shared an instance where he witnessed a snake ingesting milk and egg offered at temples.

Continuing the discussion, I asked students about the habitat of snakes. Some of them came up with answers like burrows and water. Immediately a student was shocked, exclaiming whether a tank of water in front of his house has snakes, for which the whole class burst into laughter. I summarized by saying that snakes live in burrows, trees, among grasses and water bodies.

I showed them few pictures of common snakes in the locality and asked students to identify them. Students were familiar with names like Naaga Pambu, Pachcha Pambu.

A PowerPoint slide show made on the topic of snakes, covering details of their habits and habitat was screened to the class. An engaging discussion ensued.

In order to make the discussion more interesting, I asked students how different animals make sounds and students imitated the bark of a dog and meow of a cat. I guided them back to the topic by asking about the sound produced by snakes. The whole class started making sounds. An audio recording of the hissing of snakes was played. I told them that snakes hiss to make their presence known thereby serving as a warning for other animals.

I asked students on whether they knew about snakes not having a nose or an ear. Students replied that they had not seen ears but had seen two holes in front of a snake’s head and considered them nose. I explained how the flick of its tongue is used to smell, while vibrations are picked from the ground using their lower jaw and processed in the snake’s brain to identify the sound. Students were asked to guess the food consumed by snakes out of a list displayed in the slide, with correct answers in the next slide. They doubted whether snakes consume eggs.
I added that snakes swallow their food whole due to absence of teeth.

Moving the discussion to the types of snakes, I showed them pictures of venomous and non-venomous snakes.

Me: What is venom?
Students: Venom causes death.
Me: Where have you seen it?
Students: When a snake bites, the person's body becomes blue, foam comes out of the mouth and the person dies.

I explained that snakebites could cause death but added that there are medicines called anti-venom to save victims. A brief description of first aid to be administered in case of snakebite was also discussed.

A video on how snakes smell, hear, eat food, climb trees, scare enemies etc. was shown. A snake eating an egg and later spitting out the eggshell grabbed students' attention. Children were asked to write the new things they had learned that day.

From their writing, it was evident that some misconceptions like 'snakes dance to the music of snake charmers flute,' 'some snakes eat fruits,' 'snakes drink milk,' 'snakes do not have ears but they have a nose' still remained.

Making animal profiles:

Students were asked to collect details about different animals around their locality such as name, pet name, the food it eats, who takes care of them etc.

What went well?

Using the slide show with a lot of pictures helped initiate discussions. Videos helped students understand better. Showing pictures of different kinds of snakes was interesting as students were able to identify some.

A game of snakes’ food habit

Students were divided into two groups. One group role-played snakes, while students in the other group were assigned names of different kinds of food. On the blow of a whistle, students who played ‘snake’ stood near the food, snakes would eat. After the game, a discussion ensued on why certain foods are not eaten by snakes.

Discussion on cruelty against animals:

The class was divided into six groups. Each group was given a picture card showing cruelty towards animals. E.g., a chimpanzee in a cage, a lion in a circus, a bear tied using rope, an elephant chained etc. Students discussed the situation and empathized with the animals. Each group was encouraged to present their discussion to the class. This activity heightened their awareness about cruelty towards animals.

My reflections:

- Eliciting prior knowledge from students through a discussion made the session interesting and interactive.
- Students participated with enthusiasm when questions were asked based on the pictures.
However, there is a need for some strategy to control mass answers and allow individual narratives.

- Even after discussion with the whole class, some students had misconceptions about snake’s food and its habits. Discussions for a longer period of time may be necessary.

- Plenty of opportunities opened up for introducing diverse concepts. When a student narrated an experience where a rat snake was killed, the importance of snakes in the ecosystem could be discussed. It is necessary to let students become aware of the methods to control snakes rather than killing them.

- Preparing animal profiles was engaging as a classroom activity; a little support like providing sample narrations, observations etc. might be needed for students in preparing it themselves.

Sample Animal Profiles

M. Ramakrishnan, PST
GPS Sulthanpet