Unit: The Characteristics of Life

Lesson Plan 9: Characteristic 6: Organisms Adapt

Objective(s):

Students will be able to:

- Define key terms (Adaptation)
- Explain the importance of adaptation

Materials:

- Video from Discovery Education: (Subscription Required)
  Physical and Behavioral Adaptations. 100% Educational Videos. 2003. Discovery Education. 3 January 2010. <http://streaming.discoveryeducation.com/>.

Anticipatory Set:

The sixth characteristic of all living organisms is that organisms adapt. All organisms must be able to survive in their environment and meet the changes in that environment. The creative design of each organism allows them to do this. Let's explore how some organisms are adapted to survive.

Lesson:

I. PowerPoint presentation
   Have students take notes.
II. Video

Lab Activity:

Camouflage Lab; how does color affect survival?

Evaluation:

- Lab observations

Characteristics and Classification of Organisms
Part 8

Characteristic 6:
Organisms Adapt

Adaptation-

- Physical and behavioral characteristics that allow organisms to survive in their environment

Organisms must be adapted for:

- Finding food and water
- Surviving climate changes
- Protection from predators
- Reproduction

Camouflage Lab

Materials:

- Cup
  - 1 per group
- Colorful background
  - i.e. tie-dyed sheet
  - 1 per group
- Colored beads
  - i.e. red, green, yellow, clear
  - 10 of each color per group

Background:

The colorful beads represent an imaginary species of animal, while the background represents its environment. This lab aims to see which color bead is best adapted to live in its environment when preyed upon.

Procedures:

1. Have groups choose one person to be the predator.
2. Have that person turn around as the other group members arrange the colorful beads across the background. Scatter 10 beads of each color on the background.
3. Once finished, the group members instruct the predator to quickly turn around, grab the very first bead he/she sees, place the bead in the cup, and turn back around.
4. The group members quickly rearrange the remaining beads.
5. Repeat steps 3 and 4 for a total of ten attempts.
6. Group counts the total number of each color in the cup.

Data Analysis Questions:

1. Which color was easiest to spot on the colorful background?

2. Why do you think that color was easiest to spot?

3. How does the color of an insect in the wild allow it to hide from predators?