

Robo Shark



Objectives

Students brainstorm ideas to create a fictional shark and a futuristic habitat in which the shark lives. They build an artistic representation of this imaginary shark and describe its adaptations.

Materials

- paper
- glue
- scissors
- plastic bottles
- cans
- scraps of wood
- other nonfood “garbage” items

Background

Humans use the ocean for transportation, harvesting food and minerals, and recreation. And because all water eventually reaches the ocean, the things we do on land also affect the oceans. Some of our actions can be harmful: in the past, humans have destroyed habitats, dumped various pollutants into the ocean, and overharvested certain animals. Human activities can speed up environmental changes. By changing the environment quickly and radically, we have the ability to completely destroy a habitat for which an animal is adapted. The environment we leave behind may be so different from the animal’s habitat that the animal lacks the adaptations necessary to survive there. If there are no members of the population that can survive the environmental change, the entire population will become extinct. We have the responsibility to study our ecosystem and learn how it works so we can predict how our actions might affect it.

Action

1. Lead your students in a discussion about environmental problems in the oceans. Species that can’t adapt to environmental changes go extinct. Other species do adapt to environmental changes. What kind of adaptations might they develop?
2. Invite students to use their imaginations to artistically create their own futuristic shark out of scrap materials, working alone or in cooperative groups. Have each student or work group write a brief description of their shark’s habitat, adaptations, prey, etc. How do these adaptations enable the shark to survive in its futuristic habitat? Allow each student (or group) a chance to share their creation with the class.

Deeper Depths

Use only recyclable materials to create the “Robo Sharks.” Then, have your students take their creations to a recycling center and recycle them.