No Place to Hide

Objective:

Students will learn how destruction of a coral reef affects the animals that live there.

Materials:

Large playing area
copies of page 10 enlarged 200%, cut into individual cards
yarn or string

Action:

1. Cut out pictures of reef creatures and attach yarn or string to make a sign that can be placed around a student's neck. You'll need one sign for each student.

2. Divide class into three groups by having individuals "number off" one, two, and three.

3. Have students in groups one and two get together and find a partner. Each pair should find a place to stand in the playing area. Have the partners face each other and join hands over their heads. They represent the coral reef.

4. Students in group three are the reef creatures. Give each student a picture of a reef creature to place around their neck (set extra signs aside). Ask them to demonstrate how that reef creature moves (for example snails move slowly, crabs scuttle sideways, fishes move their tails back and forth to swim). Have them find a "reef" to hide in. Reef creatures stand between two students who are the reef. Only one reef-creature student can hide with one reef pair.

5. Each time the teacher calls out "find a new home," reef creatures must leave their hiding place and find a new one. Any reef creature without a hiding place can't survive, and must leave the game.

The clownfish has a symbiotic relationship with a sea anemone.

6. After a few switches, you should comment on the abundant places the reef creatures have to hide, and ask them if they think it's really like that in the ocean. Tell students that although coral reefs take a long time to develop, they can be destroyed very quickly. Explain that one way coral reefs are destroyed is by careless boaters who drop anchors on the reef and break off parts of it. As you discuss this, physically separate one or two pairs of students who make up a reef, and have them become reef creatures.

7. Resume the game. It will be harder for students to find a reef to hide in, because there are fewer reefs and more reef creatures.

Corals remove and recycle carbon dioxide. Excess amounts of this gas contribute to global warming.

8. After another couple of switches, stop and ask students if they have ever seen tropical fish in an aquarium. Explain that many people buy fish from special fish breeders, but that some of the tropical fish sold in pet stores have been taken directly from coral reefs. The people who collect the fish often use dynamite or poisons to stun the fish and make them easier to catch. Explain that dynamite breaks the reef, while poison kills coral polyps and other reef creatures. Separate another couple of reef pairs, and resume the game. Occasionally, stop and share with your students other ways reefs are destroyed:

   - When fertilizer and untreated sewage wash into the ocean, microscopic algae in the water grows faster. Too much algae can overwhelm and smother coral polyps.
   - Oil spills, garbage, and other forms of ocean pollution poison polyps.
   - When tropical forests are cut down, soil washes down rivers into the sea. Soil that settles on reefs smothers coral polyps and blocks out the sunlight needed for corals to thrive.
   - Sometimes, divers and snorklers sit or stand on and touch reefs to get a better look at the marine life around them. Without knowing it, they may be injuring delicate coral polyps.

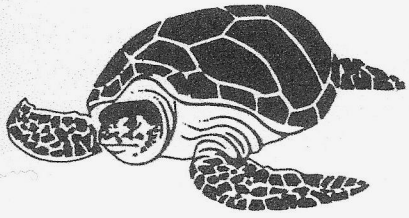
9. Continue playing until you have discussed all the ways reefs are destroyed.

Deeper Depths:

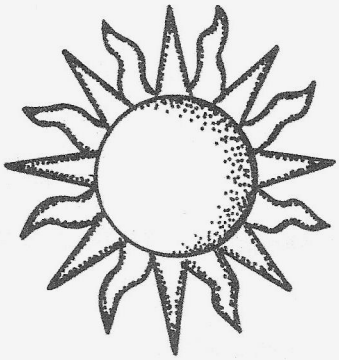
Lead students in a discussion about how reef destruction affects the creatures that live there. It gets hard to find a hiding place, but what else might get hard to find? (*food*) What happens when the whole reef is destroyed?

Sea horses are one of the many species of fish that live in a coal reef.

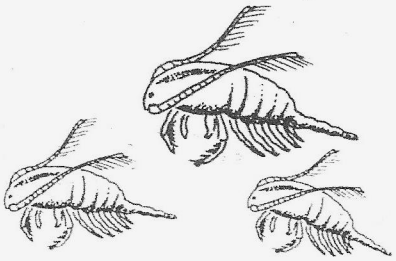
Food Web Cards



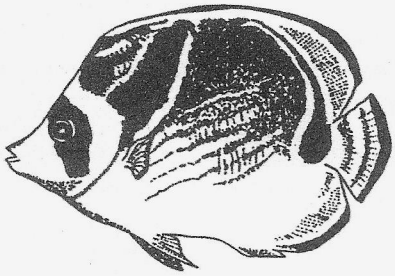
sea turtle



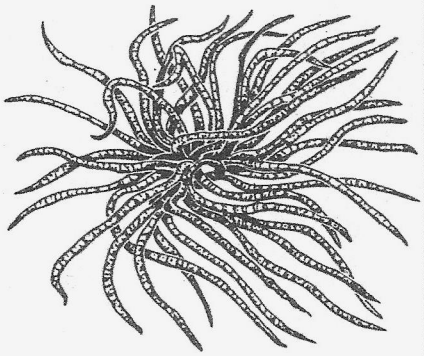
sun



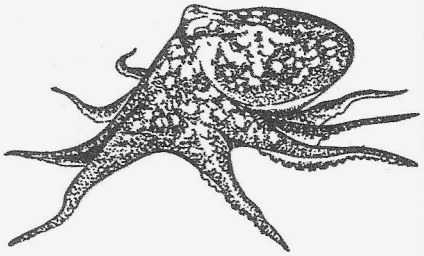
zooplankton



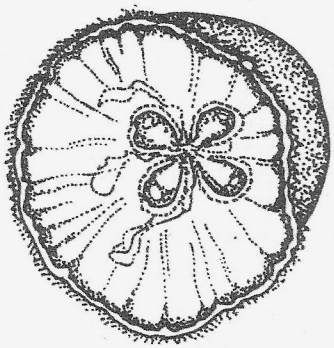
butterflyfish



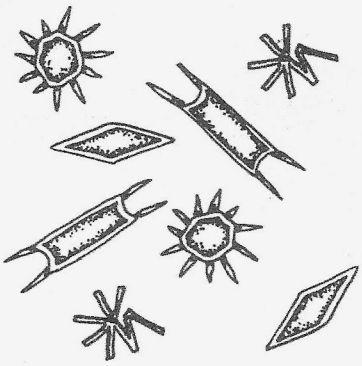
anemone



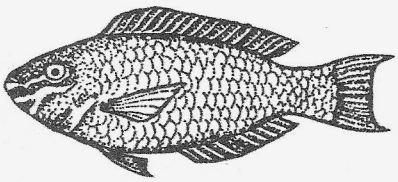
octopus



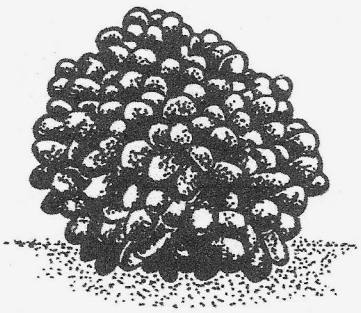
jellyfish



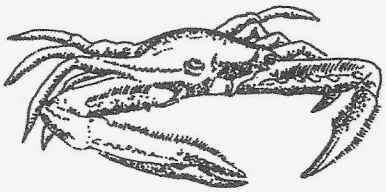
phytoplankton



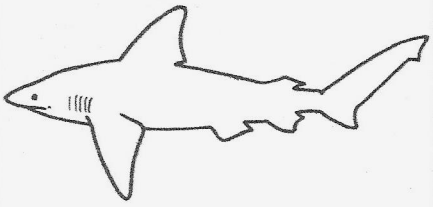
parrotfish



coral



crab



shark