

**Source:** Corals and Coral Reefs: 4 - 8 Teacher's Guide. A Sea World Education Department Publication. Used with permission.

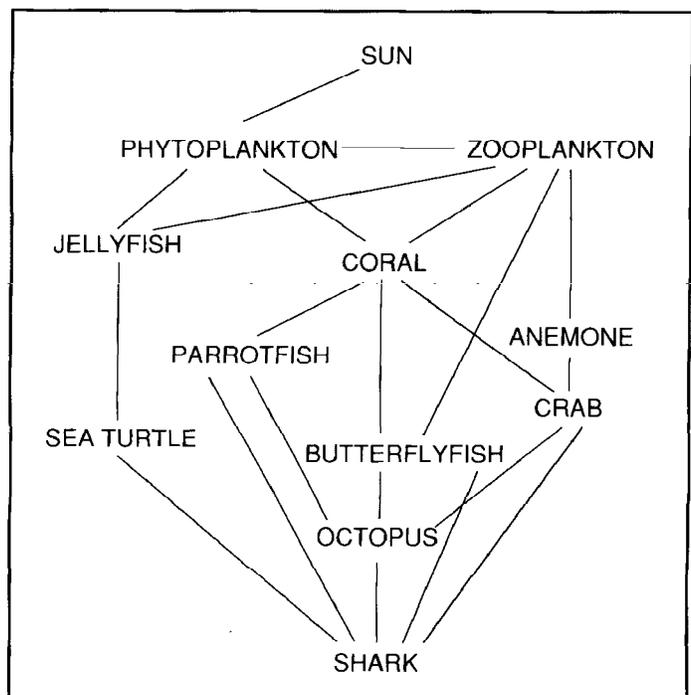
## 37. WEAVE A FOOD WEB

**Objective:** Students will discover the food/energy relationships within a food web in a coral reef habitat.

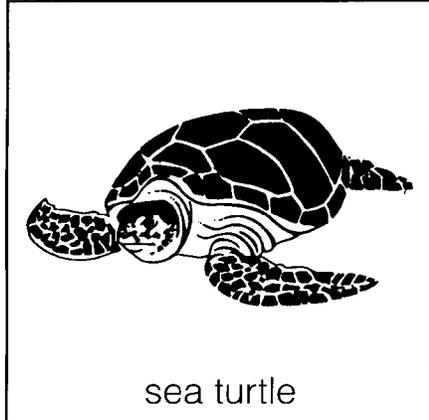
**Materials:** Copies of the following page enlarged 200% (so that you have one animal for each student), yarn or string, large playing area

### Action:

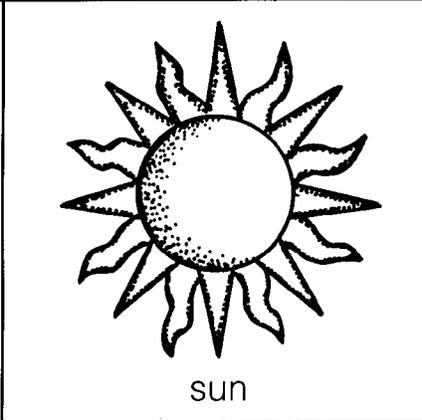
1. Cut out pictures of members of the reef ecosystem and use yarn to create signs students can wear around their necks. (Be sure you only have one sun.) Roll the rest of the yarn into a ball.
2. Define a food web for your students: write the words sun, phytoplankton, jellyfish, and sea turtle on the board and draw pictures to symbolize each one. Share with students the idea that phytoplankton gets its energy from the sun, the jellyfish gets energy by eating the phytoplankton, and then the sea turtle gets its energy by eating the jellyfish. Explain that most animals eat more than one thing. Tell them that the transfer of energy through food between life-forms in an ecosystem is called a *food web*.
3. Take students out to playing area, and have them form a large circle. Give everyone an animal card to wear.
4. Have the person who is wearing the sun card hold one end of the string. Ask students which member of the food web gets its energy from the sun (phytoplankton, a type of plant). As they volunteer answers, unroll the yarn and have students wearing those signs hold onto the yarn. Next, ask students which members of the food web get their energy directly from phytoplankton (coral polyps and zooplankton—refer to diagram below). Have those students hold onto the yarn, too. Continue until the food web is complete.
5. Direct students to gently and carefully lay the yarn on the ground so that the web stays intact. Have them step back and notice the pattern created by the interaction of organisms.
6. Explain that many factors can disrupt a food web: pollution, overfishing, and habitat destruction. As you name each factor, use your foot to discreetly disturb part of the yarn web.
7. Have the students pick up the yarn again and ask them if the web looks the same. Explain that many factors including pollution, habitat destruction, and overharvesting resources destroy ecosystems.
8. Instruct students to set the web down again. Ask all corals to take a step back. Have students pick up the web again. Ask students what happens to the food web when an animal becomes extinct.



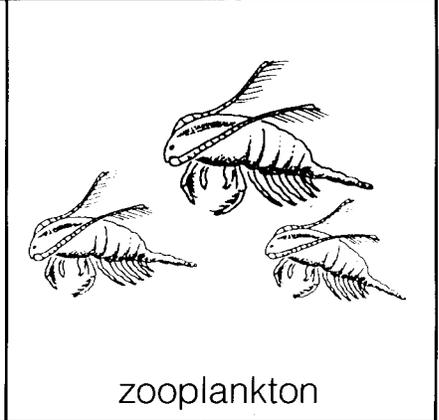
# FOOD WEB CARDS



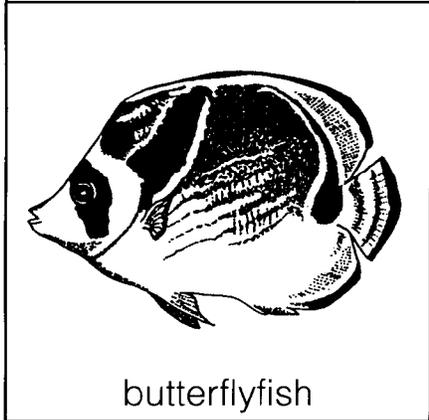
sea turtle



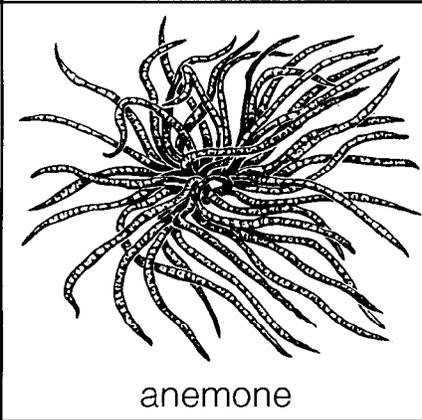
sun



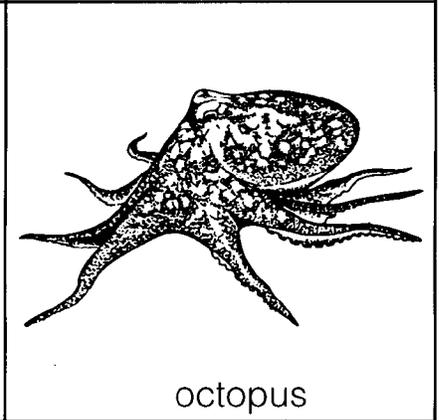
zooplankton



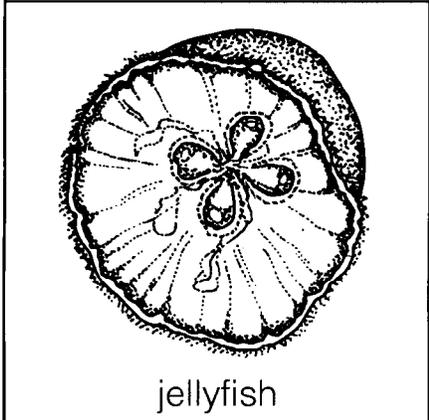
butterflyfish



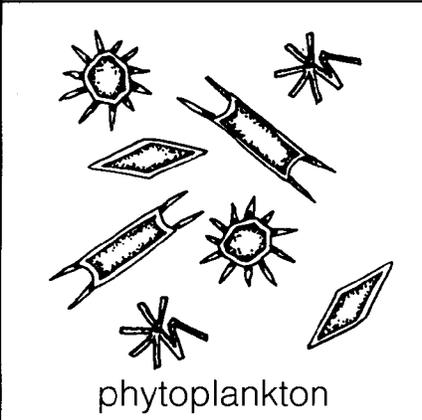
anemone



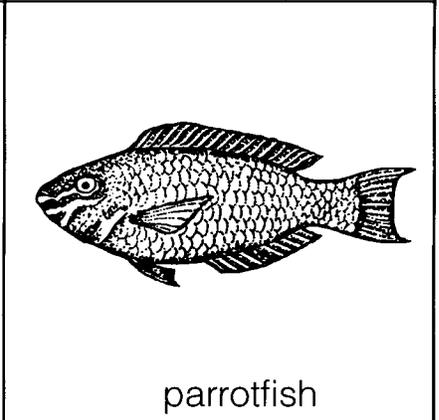
octopus



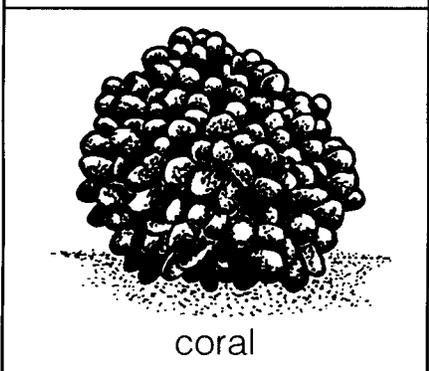
jellyfish



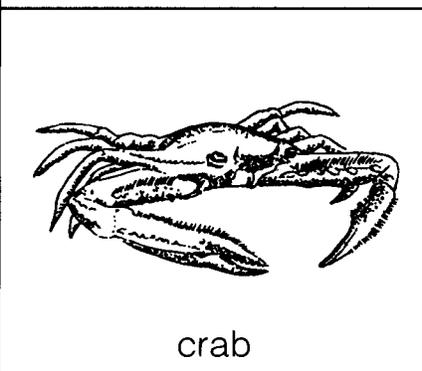
phytoplankton



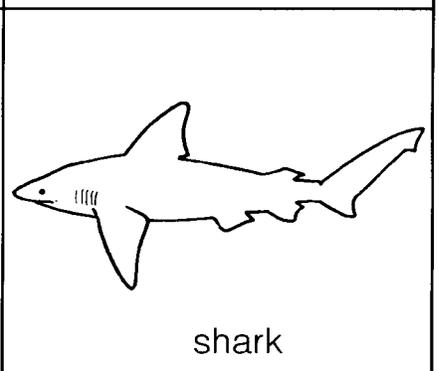
parrotfish



coral



crab



shark

**Correlation to National Standards from McREL ( <http://www.mcrel.org> ) :**

Life Sciences

6. Understands relationships among organisms and their physical environment