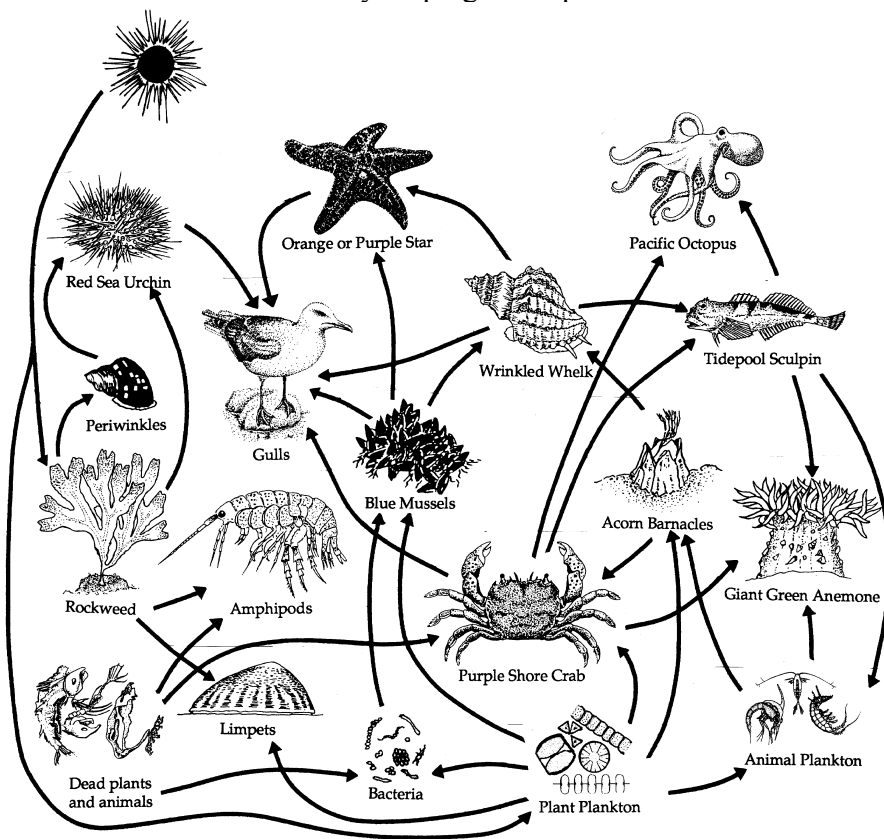


The Build a Habitat program at Hatfield Marine Science Center is designed to be a 50-minute hands-on program for Kindergarten through 3rd grade students. Students will work in small groups as they examine a number of live marine organisms, learn about what they need to survive, and discover how they function together in a healthy marine habitat.

Background

A *habitat* is the area or environment where an organism or group of organisms normally lives. A suitable habitat is critical to the survival of all animals and includes adequate food, clean water and air, as well as cover or shelter from the elements and potential predators. The amount and quality of these needs varies a great deal from species to species. We have many marine habitats along the Oregon Coast. Tidepools, eelgrass beds, sandy beaches, and mudflats are all examples of marine habitats. Like animals that live on land, marine organisms also need oxygen (which they usually get from the water), shelter, and food but require clean saltwater instead of freshwater for their survival.

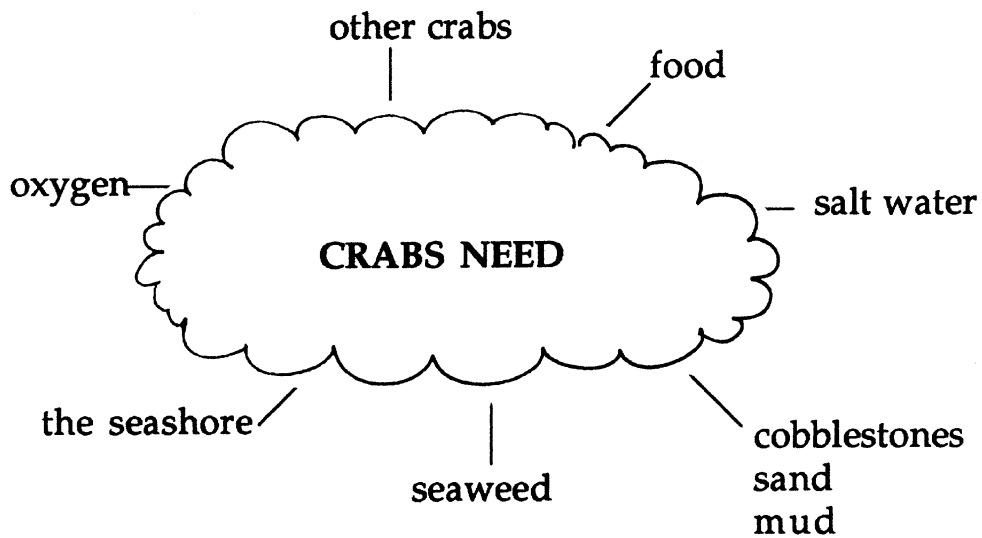
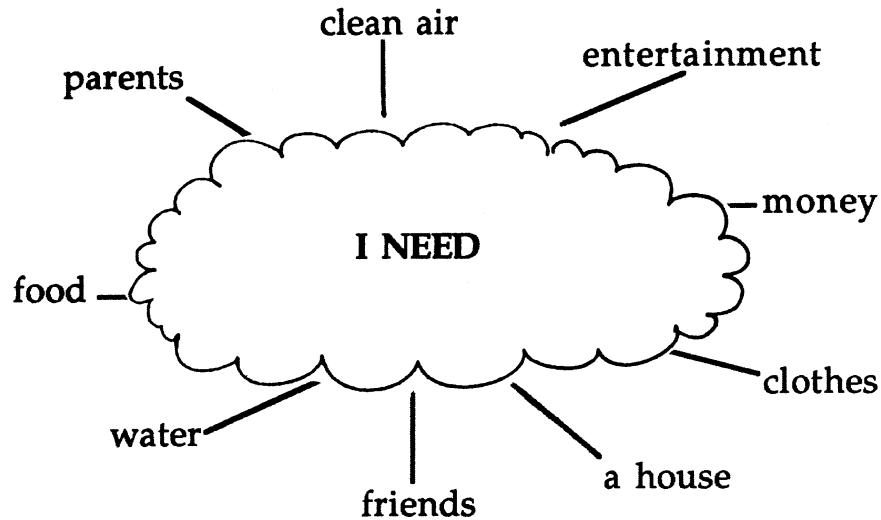
An *ecosystem* is the interaction of organisms with their habitat and each other. Like their terrestrial counterparts, marine ecosystems contain numerous *producers* which are at the base of the food chain and utilize energy from the sun to create their own food and produce oxygen. Marine producers include algae or seaweed, sea grasses, and *phytoplankton*. Producers are then consumed by *grazers*, who in turn are eaten by *predators*. *Scavengers* are those organisms that feed on dead and decaying plant and/or animal material thereby helping to keep habitats “clean”.



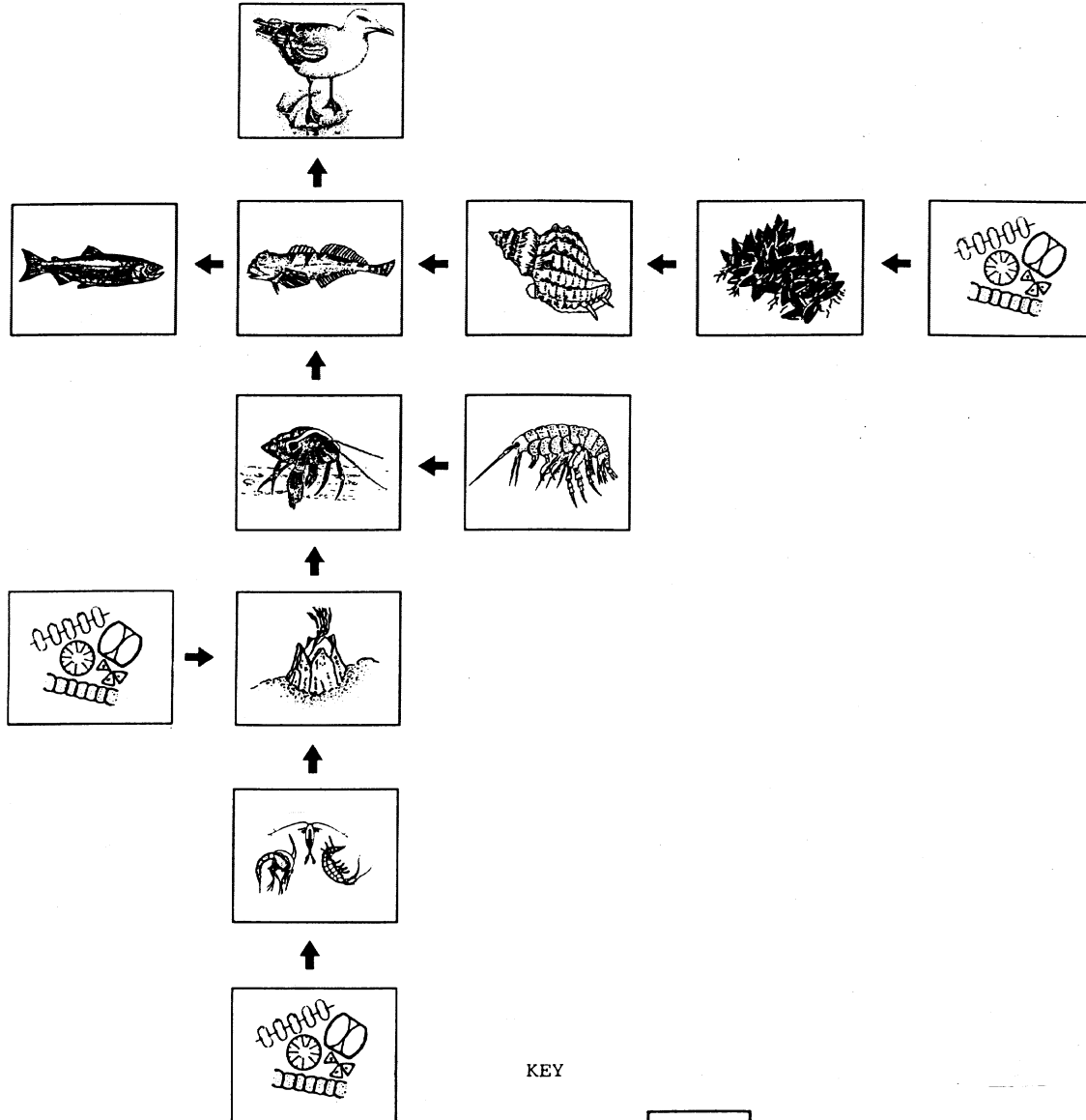
Examples of crustaceans in a rocky shore food web.

Suggested Pre- or Post-Visit Activities and Resources

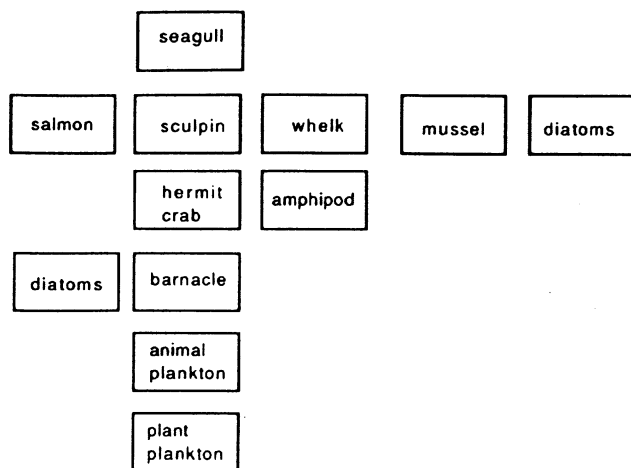
- Have students brainstorm and create a concept map about what they need as individuals to survive and compare it to what marine organisms need (such as a fish or crab). Some examples of what students might generate are below.



- Discuss with your students food webs and how organisms interact within an ecosystem. Then using the cards below, print and cut them out and have students arrange them to create their own food chain or web.



KEY



For lesson plans and activities focusing on habitat using your school grounds or nearby areas go to:
<http://www.nwf.org/schoolyard/lessonplans.cfm>

Correlation to Oregon Science Education Standards

Kindergarten

- K.1 Structure and Function: **The natural world includes living and non-living things.**
- K.1P.1 Compare and contrast characteristics of living and non-living things.
- K.1L.1 Compare and contrast characteristics of plants and animals.
- K.2 Interaction and Change: **Living and non-living things move.**
- K.2P.1 Examine the different ways things move.
- K.3 Scientific Inquiry: **Science explores the natural world through observation.**
- K.3S.1 Explore questions about living and non-living things and events in the natural world.
- K.3S.2 Make observations about the natural world.

Grade 1

- 1.2 Interaction and Change: **Living and non-living things interact.**
- 1.2L.1 Describe the basic needs of living things.
- 1.3 Scientific Inquiry: **Science explores the natural world using evidence from observations.**
- 1.3S.1 Identify and use tools to make careful observations and answer questions about the natural world.

Grade 2

- 2.1 Structure and Function: **Living and non-living things vary throughout the natural world.**
- 2.1L.1 Compare and contrast characteristics and behaviors of plants and animals and the environments where they live.
- 2.2 Interaction and Change: **Living and non-living things change.**
- 2.2L.1 Describe life cycles of living things.