

Lab: Food Web Connections

Vocabulary:

Food Chain: a sequence of food relationships. The first link is plants (producer); second is plant eaters (herbivores); third and beyond are animal eaters (carnivores)

Food Web: the type of food relationships in which several food chains are joined. Food webs are more stable because they increase chances for survival if one species of animal or plant becomes scarce

Directions: Complete the following chart using organisms listed on the back to assist you. Then draw a food web using all of the organisms given. Remember that arrows in a food web point in the direction of energy flow.

Vocabulary Word	Definition	Restate Definition in Your Own Words	Examples of this Type of Organism	What They Eat (or where they get energy)
Seaweed	One of three types of marine algae; brown, red and green			
Plankton	Plants (phytoplankton) and animals (zooplankton), usually microscopic, that float in the water and are carried by the current			
Shellfish: Crustacean	An invertebrate group that includes animals with a hard external skeleton, two sets of antennae, and one pair of legs per body segment			
Shellfish: Mollusk	Invertebrate animals with soft, unsegmented bodies, often encased in a calcium carbonate shell			
Mollusk: Cephalopod	Class of mollusks with bilateral symmetry, a prominent head, and a set of arms or tentacles			
Fish	Vertebrate animals that have gills and lack limbs with digits			

- Plants:** diatoms (phytoplankton), sea lettuce (green seaweed)
- Herbivores:** filtering animals (eats diatoms) – oyster, fish larvae, mole crab
grazing animals (eats sea lettuce) – fiddler crab, shrimp
- Carnivores:** blue crab (eats fish larvae, fiddler crab, shrimp)
spot (eats fish larvae)
grouper (eats fish larvae, shrimp, spot)
stone crab (eats oyster, mole crab, fiddler crab, shrimp)
octopus (eats fiddler crab, shrimp, blue crab, spot, stone crab)

FOOD WEB

Analysis:

1. What type of environment is illustrated in this food web?
2. What is the ultimate source of energy for this food web? Name a community that is not dependent on this source.
3. Choose an herbivore. How many organisms would be affected if that herbivore were suddenly gone?
4. Each step in a food chain is assigned a trophic level, with higher level consumers being a higher trophic level (ex. Producer=1, herbivore=2, etc.) Which creature in your food web would have the highest trophic level?
5. What are some advantages to feeding at a high trophic level?
6. What are some disadvantages to feeding at a high trophic level?
7. Give an example of a character in the movie Finding Nemo and name its trophic level.