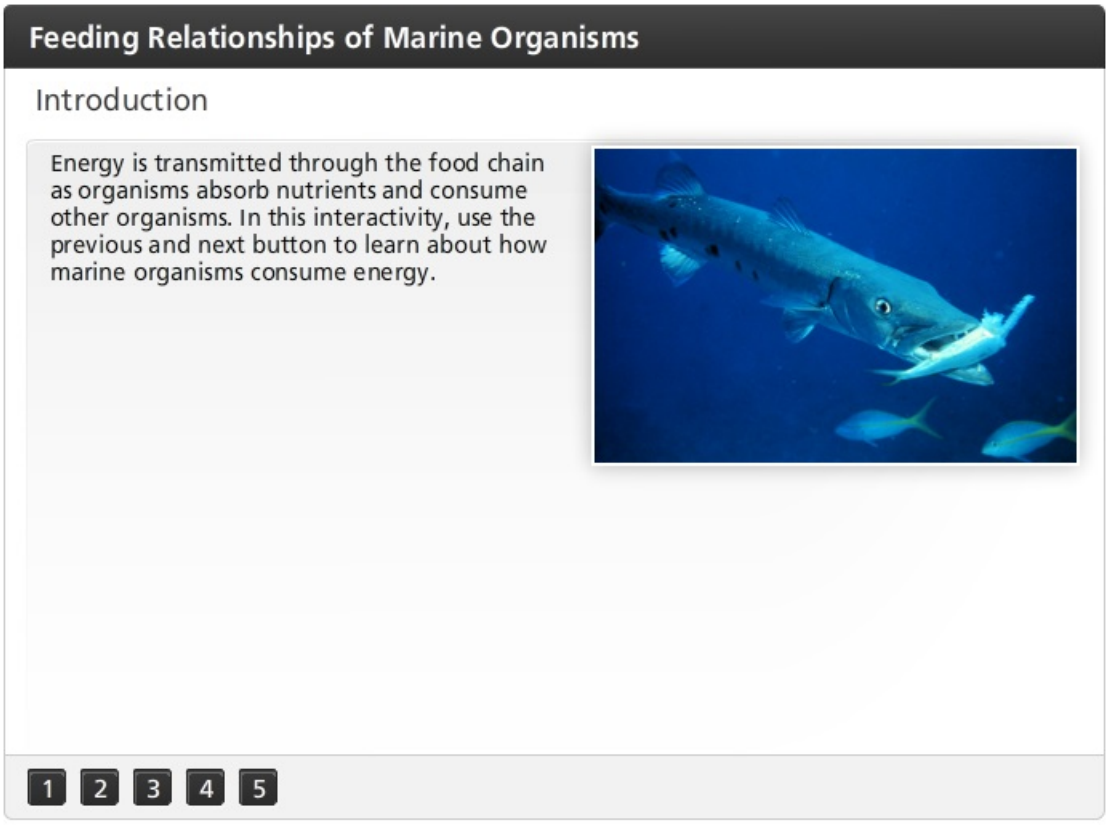
Module 9: Marine Ecology
Topic 2 Content: Feeding Relationships of Marine Organisms Notes



Energy is transmitted through the food chain as organisms absorb nutrients and consume other organisms. In this interactivity, use the previous and next button to learn about how marine organisms consume energy.

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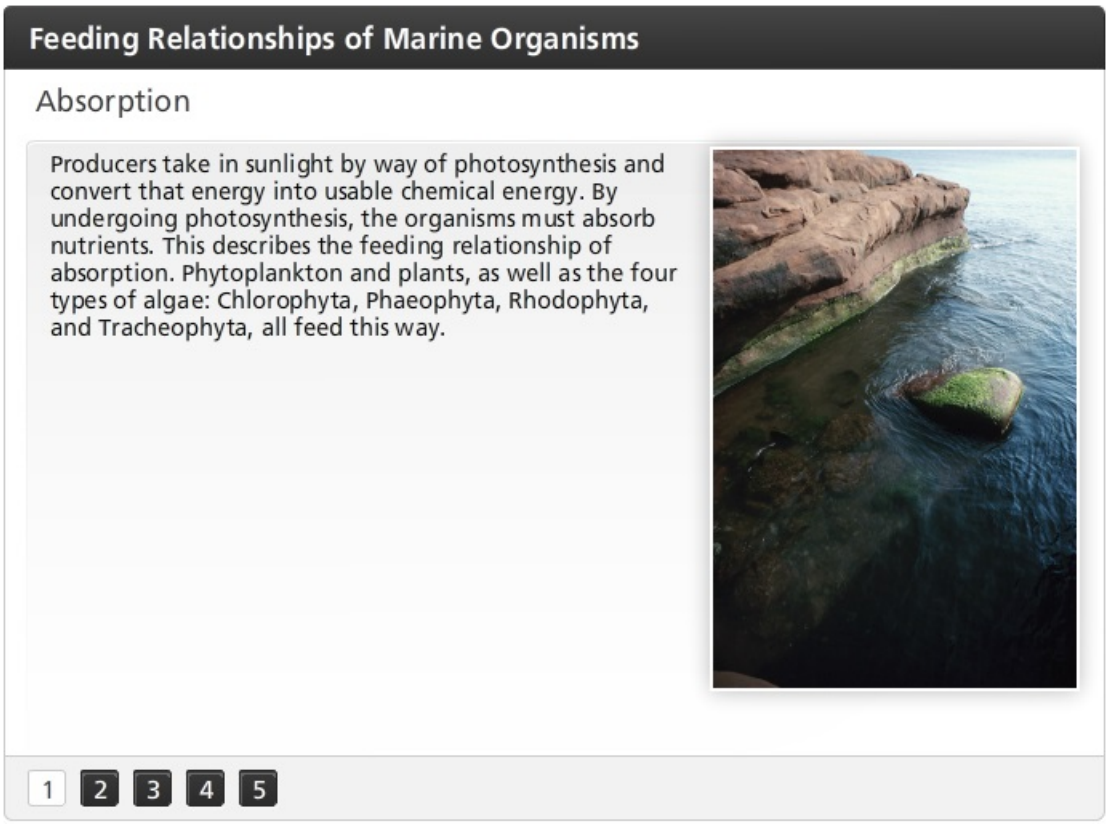
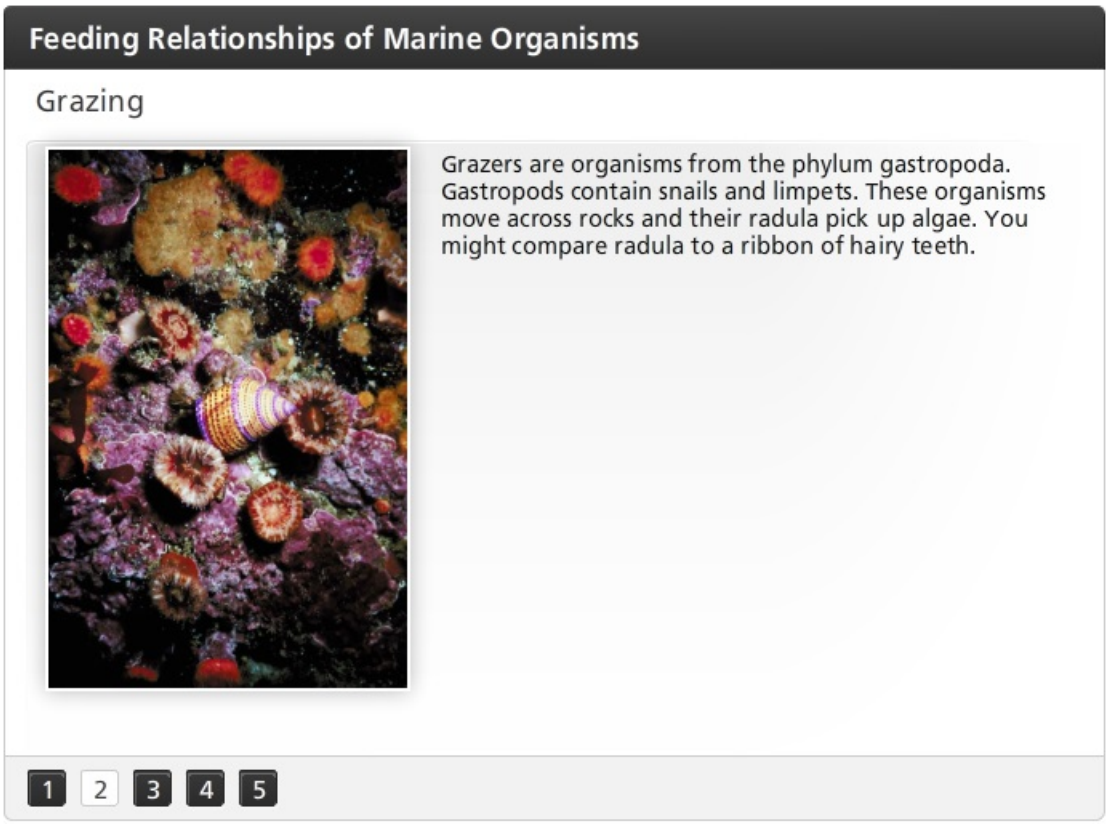
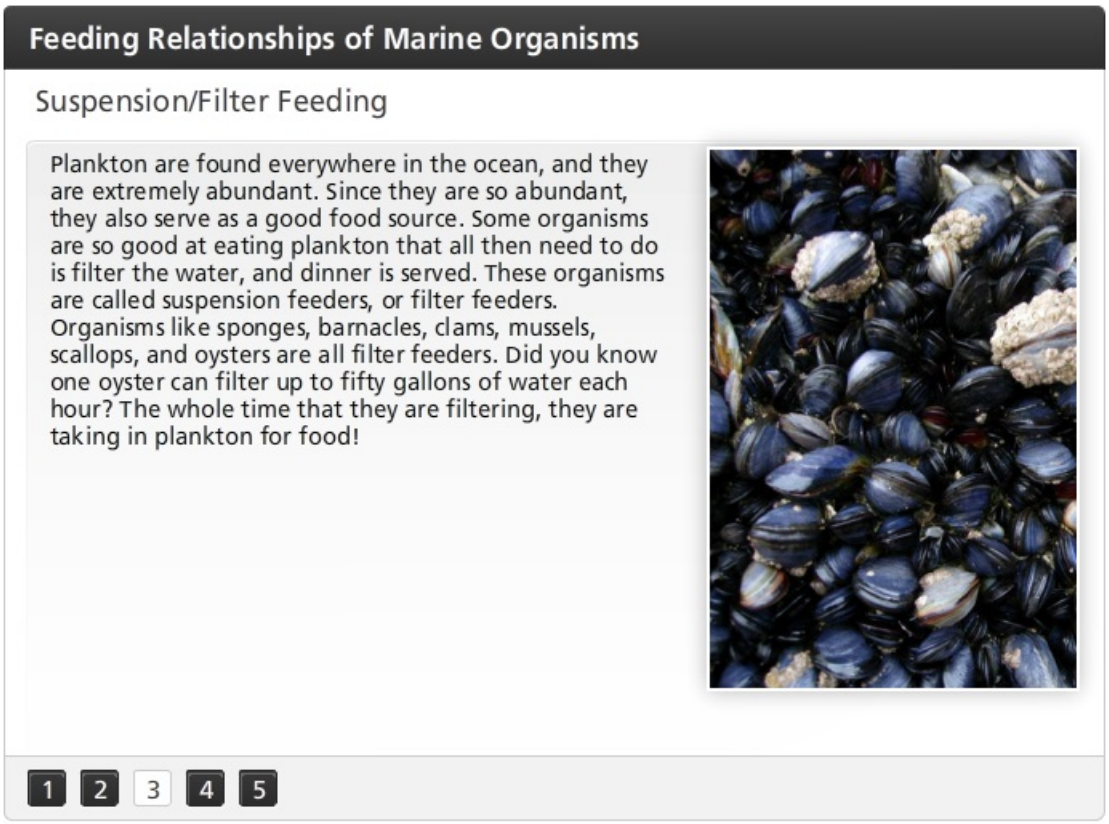


Producers take in sunlight by way of photosynthesis and convert that energy into usable chemical energy. By undergoing photosynthesis, the organisms must absorb nutrients. This describes the feeding relationship of absorption. Phytoplankton and plants, as well as the four types of algae: Chlorophyta, Phaeophyta, Rhodophyta, and Tracheophyta, all feed this way.

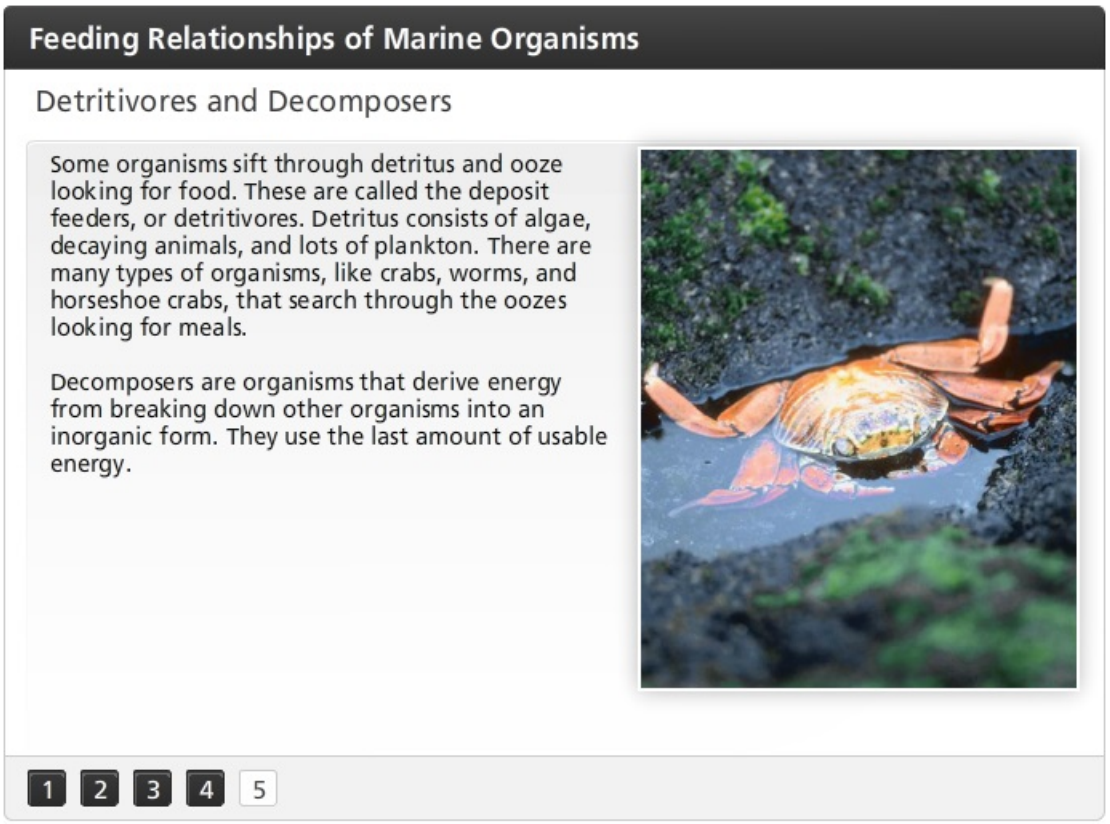


Grazers are organisms from the phylum gastropoda. Gastropods contain snails and limpets. These organisms move across rocks and their radula pick up algae. You might compare radula to a ribbon of hairy teeth.



Plankton are found everywhere in the ocean, and they are extremely abundant. Since they are so abundant, they also serve as a good food source. Some organisms are so good at eating plankton that all then need to do is filter the water, and dinner is served. These organisms are called suspension feeders, or filter feeders. Organisms like sponges, barnacles, clams, mussels, scallops, and oysters are all filter feeders. Did you know one oyster can filter up to fifty gallons of water each hour? The whole time that they are filtering, they are taking in plankton for food!

Imagine a swift, efficient hunter roaming over rocks and stalking prey. Fish, octopi, sharks, whales, birds, and anything else that consumes animal tissue is considered a carnivore. Some organisms eat plants and animals; these organisms are called omnivores. They have no specialized feeding preferences. Omnivores will eat virtually anything to get food. Examples include some crabs, sea stars, and sea gulls.



Some organisms sift through detritus and ooze looking for food. These are called the deposit feeders, or detritivores. Detritus consists of algae, decaying animals, and lots of plankton. There are many types of organisms, like crabs, worms, and horseshoe crabs, that search through the oozes looking for meals.

Decomposers are organisms that derive energy from breaking down other organisms into an inorganic form. They use the last amount of usable energy.