

At-Home Science Saturday: Sea Turtles

An at-home activity for grades 3-5: Make a Sea Turtle Food Web

Produced by:  **Florida
Oceanographic
Society**



Science Saturday at Home: Create your own food web

May is Sea Turtle Month at the Coastal Center, so for this at-home activity, we are going to create a sea turtle-focused food web. Before you create your food web, it's important to learn more about what food webs are and why they are important.

Lesson:

Food webs show food-related relationships between plants and animals, illustrating the way that energy is transferred between predators and prey in a specific ecosystem. Think of a food web diagram as a map showing what different animals like to eat. At the base (bottom) of a food web are producers. Producers are organisms that make their own food, like plants. They use a process called photosynthesis to create sugar (food!) and oxygen. The ingredients that go into photosynthesis include the sun's energy, carbon dioxide, and water. Producers in the ocean include seagrasses, algae, and phytoplankton. Next on the food web are consumers. Consumers eat something else to get the energy they need to survive. Different types of consumers can be classified based on their diet. You and I are consumers! The three main types of consumers are herbivores, omnivores, and carnivores. Herbivores are animals that only eat producers (plants and algae). These are grazing animals, like manatees, adult green sea turtles, and many snails. Omnivores are animals that eat both meat and plants. Juvenile green sea turtles, many crabs, and certain sea stars are omnivores. Young green sea turtles, for example, are happy to eat algae as well as animals like shrimp and jellyfish. At the highest level of the food web are the carnivores, animals that only eat other animals.. There are many carnivores in the ocean, including loggerhead sea turtles, stingrays, and many large fish. At the very top of the food web are the largest carnivores, called apex predators. Apex predators have no natural predators. Tiger sharks are a good example of an apex predator. Tiger sharks are able to eat large animals, like sea turtles, and they don't have to worry about other predators eating them.

Sometimes, closely related animals can fit into different places in a food web. Sea turtles are a great example. Some sea turtle species are herbivores, some are omnivores, and some are carnivores. Three different species of sea turtles nest in Florida - green sea turtles, loggerhead sea turtles, and leatherback sea turtles. All three of these species have different diets. Adult green sea turtles are almost entirely herbivorous, eating lots of seagrass and algae. Younger green sea turtles are omnivorous, eating both plants and animals. Loggerhead sea turtles are carnivores that specialize eating crunchy crustaceans and mollusks. The giant leatherback sea turtle is a carnivore too, but it only eats jellyfish.

A simple food web is sometimes called a food chain because all of the parts are connected in a straight line. In nature, food webs are much more complicated!

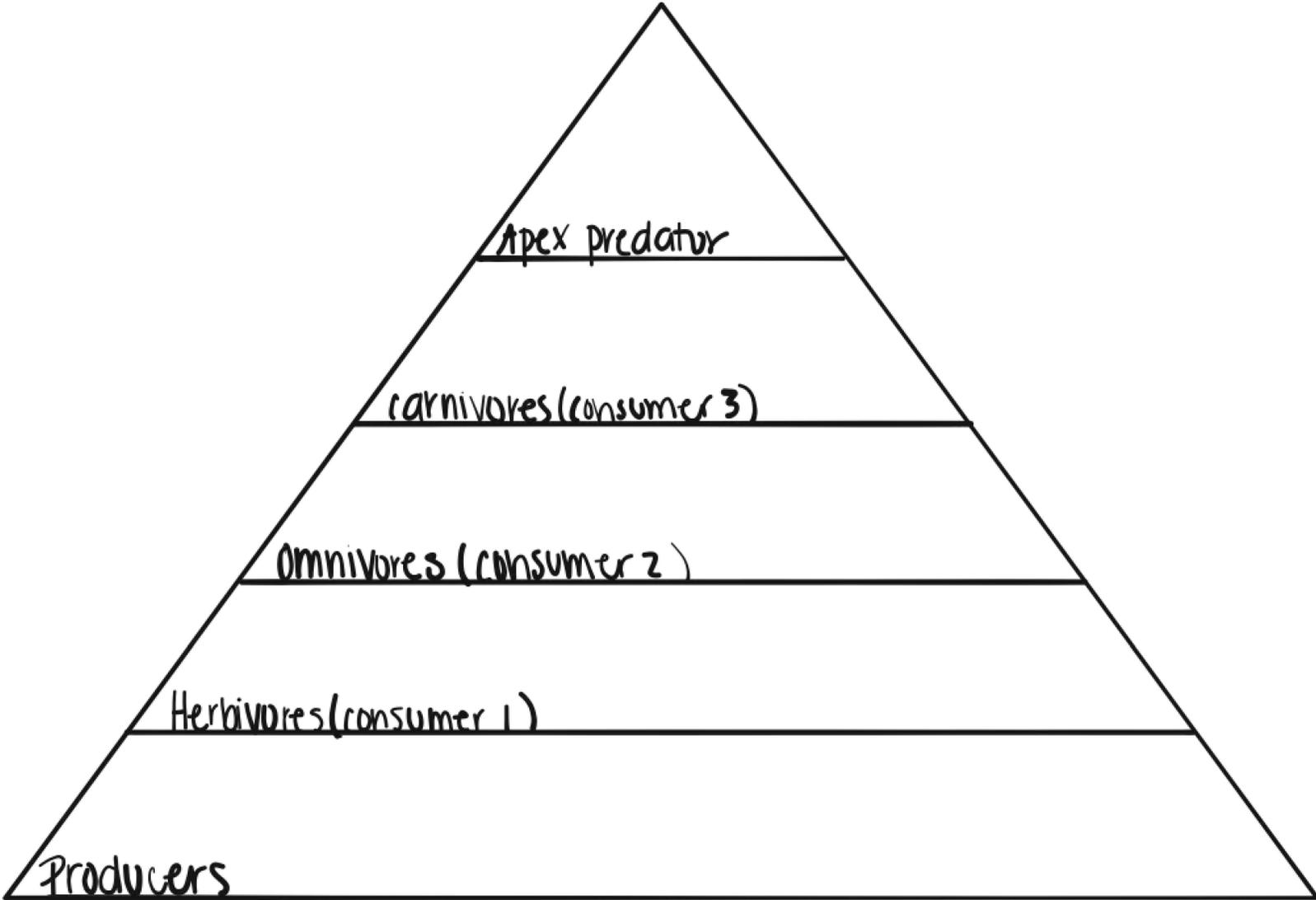
A simple food chain:

Producers → Herbivores/Omnivores → Carnivores

Seagrass → Snail → Loggerhead sea turtle → Tiger shark

How to create your food web:

On the next page, there is an empty pyramid. Cut out the animals on the last page and place them into their proper section on the pyramid. The pyramid helps you organize where these animals are in the food web. Once you have placed them in the proper area, you can then draw lines from one animal to all of the organisms it eats. For example, draw a line from the leatherback sea turtle to the jellyfish, with the arrow pointing to the jellyfish. Now you would draw an arrow from the jellyfish to what they eat. Continue drawing arrows until you have connected all possible combinations of plants and animals that serve as food for one another. Now you have a food web!

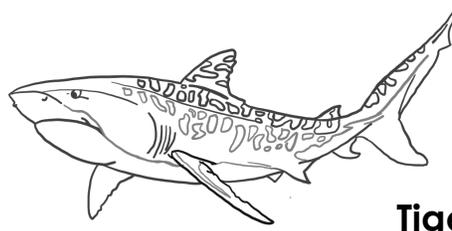


Food web activity

Cut out each of these fish to place them in the pyramid on the previous page.



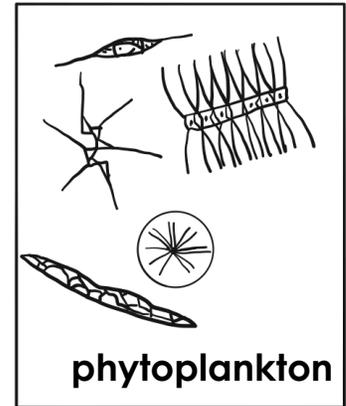
jellyfish



Tiger Shark



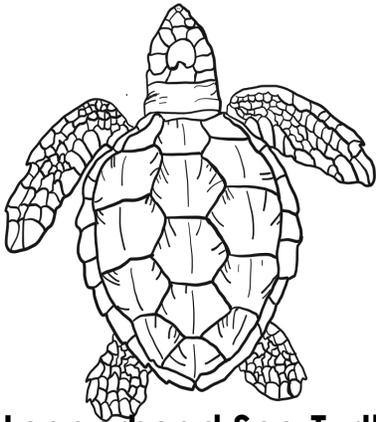
zooplankton



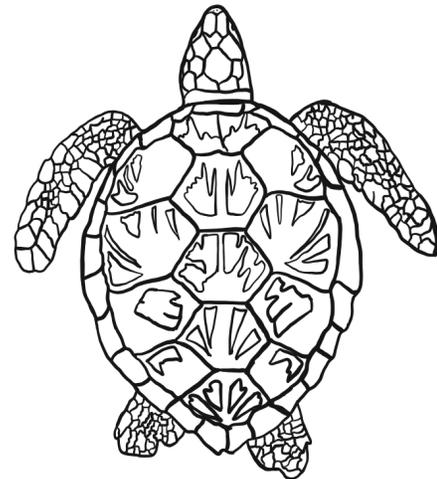
phytoplankton



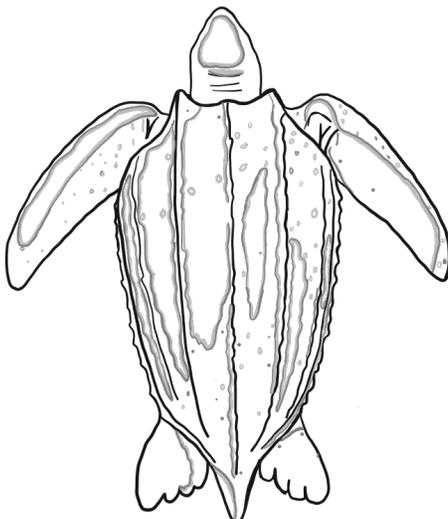
Crab



Loggerhead Sea Turtle



Green Sea turtle



Leatherback Sea Turtle



Seagrass