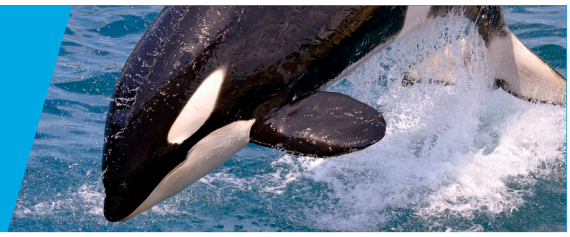
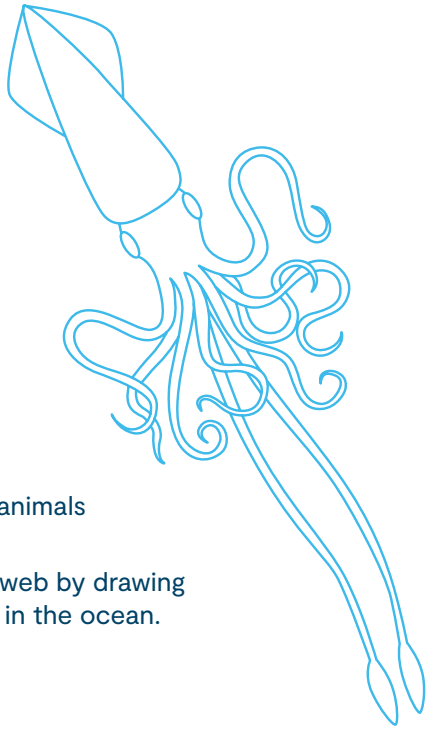
CURIOSITY AT HOME

HUNGRY, HUNGRY OCEAN



A food web is made up of connections between organisms (plants AND animals) within an environment, and shows how they depend upon one another to live. Food webs can tell scientists how healthy an environment is, whether anything is missing or changed, and how that change will affect other organisms within the ecosystem.

Take a deeper dive into the marine (ocean) food web with this activity to create and connect marine organisms.

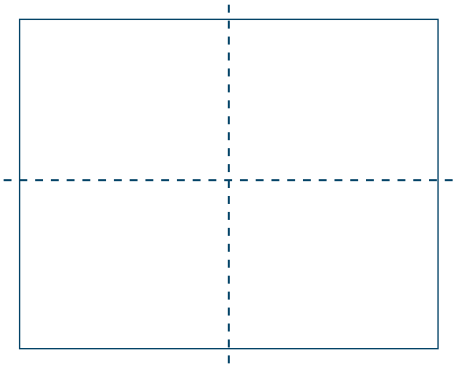


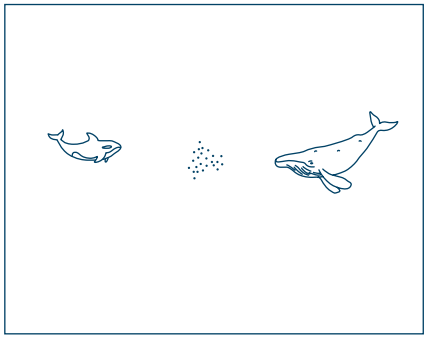
MATERIALS

- Pieces of paper to draw animals on (or toys of your favorite marine (ocean) animals)
- Paper or your science notebook
- Colored pencils/markers/pencil for drawing
- A flat surface (can be the floor, a table, concrete outside, or a clipboard)

PROCEDURE

- Cut one sheet of paper into four smaller pieces and draw one of your favorite marine animals on each piece. Set aside. (*Alternative: Gather up your favorite marine animal toys.*)
- On a new sheet of paper or an empty page in your science notebook, start your food web by drawing some **plankton** in the center of the page. Plankton are tiny plants and animals floating in the ocean. You can draw them as small dots or squiggles.





- On the same sheet of paper draw an **orca** (a toothed whale) on one side of the plankton, and a **humpback whale** (a baleen whale) on the other side.
- Draw a **fish** on your page.
- Draw your best **krill** on your page. (Krill look like tiny shrimp!).

Experiment continued on next page...

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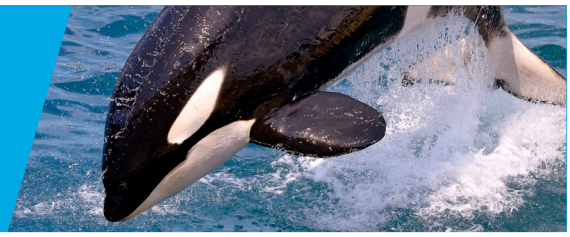
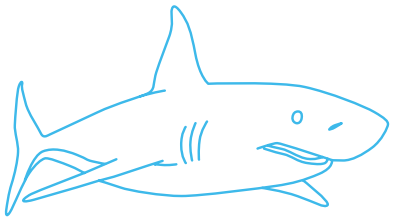
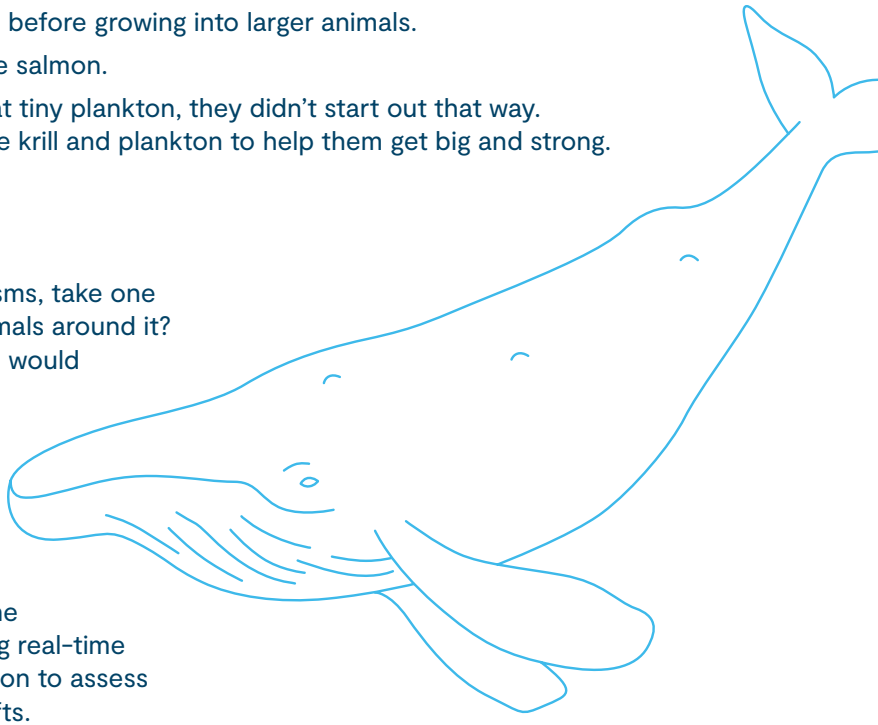




- Look carefully at the organisms on your page. Do you see an animal that might eat another animal? Think of what an orca whale might eat! Or a fish! Connect one organism to another by drawing an arrow from the food source to the thing that would eat it!
- Now add in your favorite marine animals. This is where your drawings or toys come in. Place your favorite toys or drawings somewhere on the food web where there's empty space.
- What kind of food does your favorite marine animal eat? Does it eat fish? Does it eat plankton? Does it eat plants? Maybe it really likes clams or kelp! Add in a few more plants and animals to your food web. Any time you add an organism, remember to draw an arrow to something that would eat it.
- You made a marine food web! How many arrows are in your web? Do some organisms have more than one arrow connected to them?

DID YOU KNOW?

- Plankton means drifter, as they are the animals that drift with ocean currents. Many marine organisms begin as tiny meroplankton before growing into larger animals.
- Toothed whales like the orca are able to eat fish like salmon.
- Even though full grown fish might be too large to eat tiny plankton, they didn't start out that way. Starting as small fish, they ate smaller organisms like krill and plankton to help them get big and strong.



TRY THIS:

Now that you've connected all of your marine organisms, take one organism off the page. How does that impact the animals around it? Does it leave a hole in the food web? Which organism would leave the biggest hole, if removed?

WHAT'S HAPPENING?

A food web is an interaction of different food chains, making the whole picture of how plants and animals coexist together in a habitat. In the marine environment, because of climate change, we're seeing real-time changes in the food web. Scientists use this information to assess the health of an ecosystem, and track population shifts.

Experiment continued on next page...

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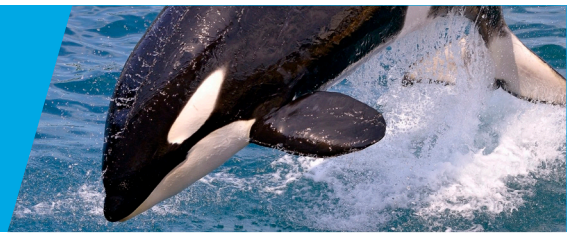

3–5 EXPLORATION

- Is there any organism that is eaten by more than one animal? What happens if you remove that organism from the web?
- Some organisms create their own food instead of eating other things. Do these organisms have a place in the food web as well?
- If we add a picture of a human to our food web, what organisms would it interact with? How would it change the web?