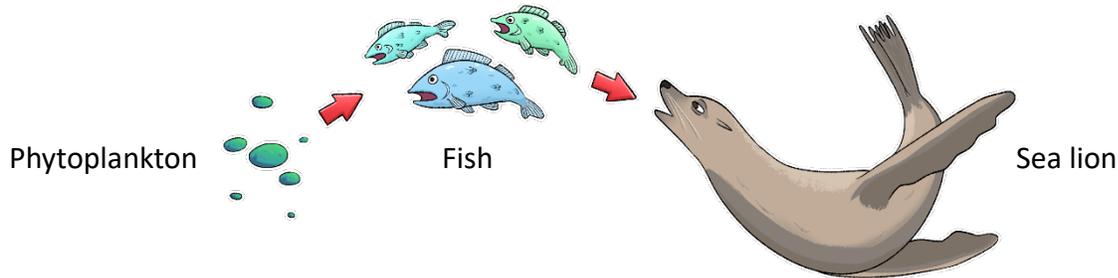


Celebrating the Oceans: The Big, The Small and the Weird

The oceans are full of many different types of plants and animals that range from the small, such as microscopic plant-plankton, to the largest animal to ever exist on planet earth, the blue whale, and many unique or even "weird" animals in between. This great diversity of life in the ocean should be celebrated and protected. With this diversity, there are also complex relationships between these marine creatures as well as a connection with people through the marine food web.



A **food web** is a series of interconnected food chains illustrating what eats what within an ecosystem. Most food webs start with a **primary producer** (or organism that can convert light energy from the sun into food) such as plant-plankton. Primary producers are eaten by **primary consumers** such as animal plankton or small fish, and end with a **top predator** such as a sea lion, toothed whale, or shark. People are part of this food web as top predators and consume from every link in the food chain from the small to the big. For this reason, people have a responsibility to help create healthy marine food webs. One way to create healthy oceans and protect the ecosystems that marine mammals and humans rely on is to choose sustainable seafood, or seafood that is caught or farmed in a way that is environmentally friendly and considers the well-being of the oceans.

At The Marine Mammal Center, we are also taking action to create healthy oceans and healthy food webs by providing sustainably sourced seafood to our patients like Mousse so that they can return to a healthy ocean once they have recovered.

Fortunately for Mousse, she was found and brought into The Marine Mammal Center and given a second chance at life.

To treat her malnutrition and bring her up to a healthy weight, she is receiving 2 pounds of sustainably sourced herring at every meal along with round the clock care from our veterinary team.

Once Mousse is at a healthy weight and has a clean bill of health, she will be released back to the ocean to take her place as a predator in the marine food web where she and other sea lions will help maintain a balance by eating fish like herring.



Mousse
California sea lion
Female pup

Rescue Location: Fort Funston,
San Francisco CA

Age: Approximately 8 months old

Admit weight = 16kg (35 lbs)

In Treatment For:

- Malnutrition
- Maternal separation

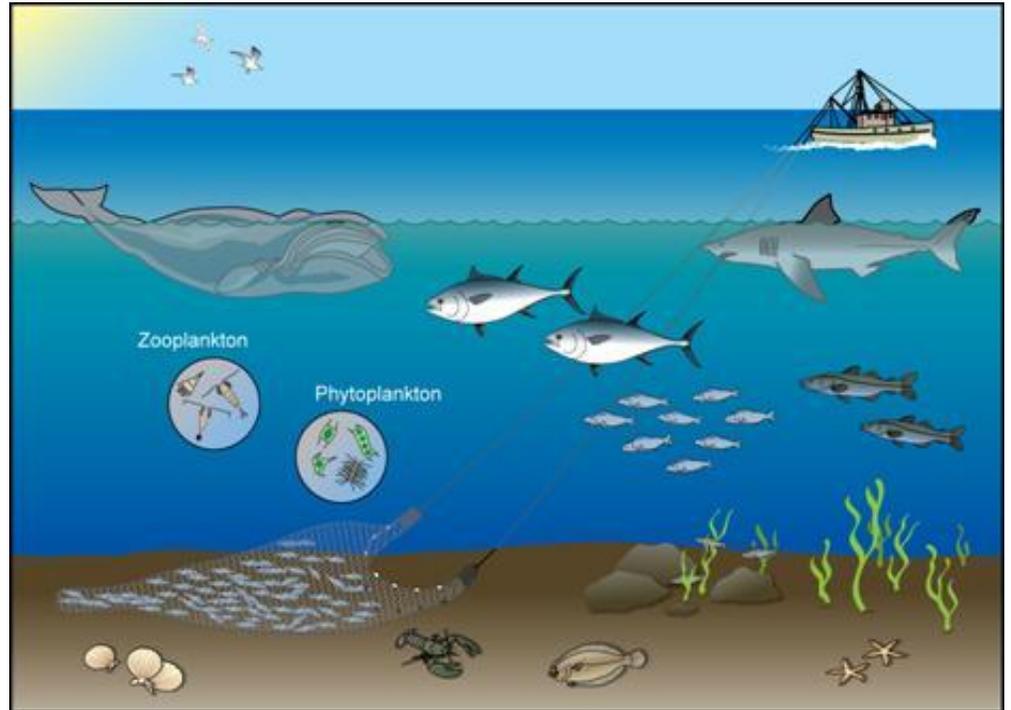
Celebrating the Oceans: The Big, The Small and the Weird

Activity:

In this activity, you will build a marine food web and explore ways that the food web can be impacted or change depending on the health of the marine ecosystem.

Materials:

- ❖ Food web cards (pg. 3)
- ❖ Food web map (pg. 4)
- ❖ Activity questions (pg. 5)
- ❖ Printer (or get creative and draw your own!)
- ❖ Scissors



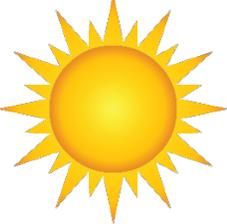
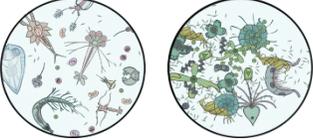
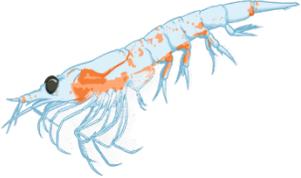
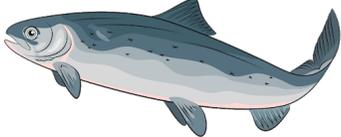
Instructions:

1. Print and cut out all the food web cards including "healthy food web" cards and "food web disruptors"
2. Using the food web cards, fill in the food web map provided. Each space on the food web has a clue to get started. If you are feeling stuck, ask yourself "what does this animal eat to get its energy?"
3. Once you've completed the food web with food web cards, place in the "food web disruptors" cards (such as ocean trash or overfishing). How might this affect the food web?
4. Now try removing different animals from the web as if they have gone "extinct" due to the food web disruptors. How might this affect other members of the food web?
5. Reflect and complete the activity questions.
6. **Bonus:* build your own food webs!
 1. Draw and/or print and cut out your own food web cards from the internet, newspapers, or magazines you have at home
 2. Draw and/or print and cut out arrows to connect your food web
 3. Point the arrows in the direction that "energy flows"

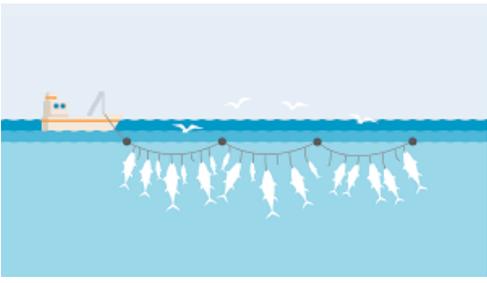


Celebrating the Oceans: The Big, The Small and the Weird

Below are food web cards to print and cut out. Feel free to draw or add your own with the blank square provided or on another sheet of paper if you prefer to get creative or don't have a printer.

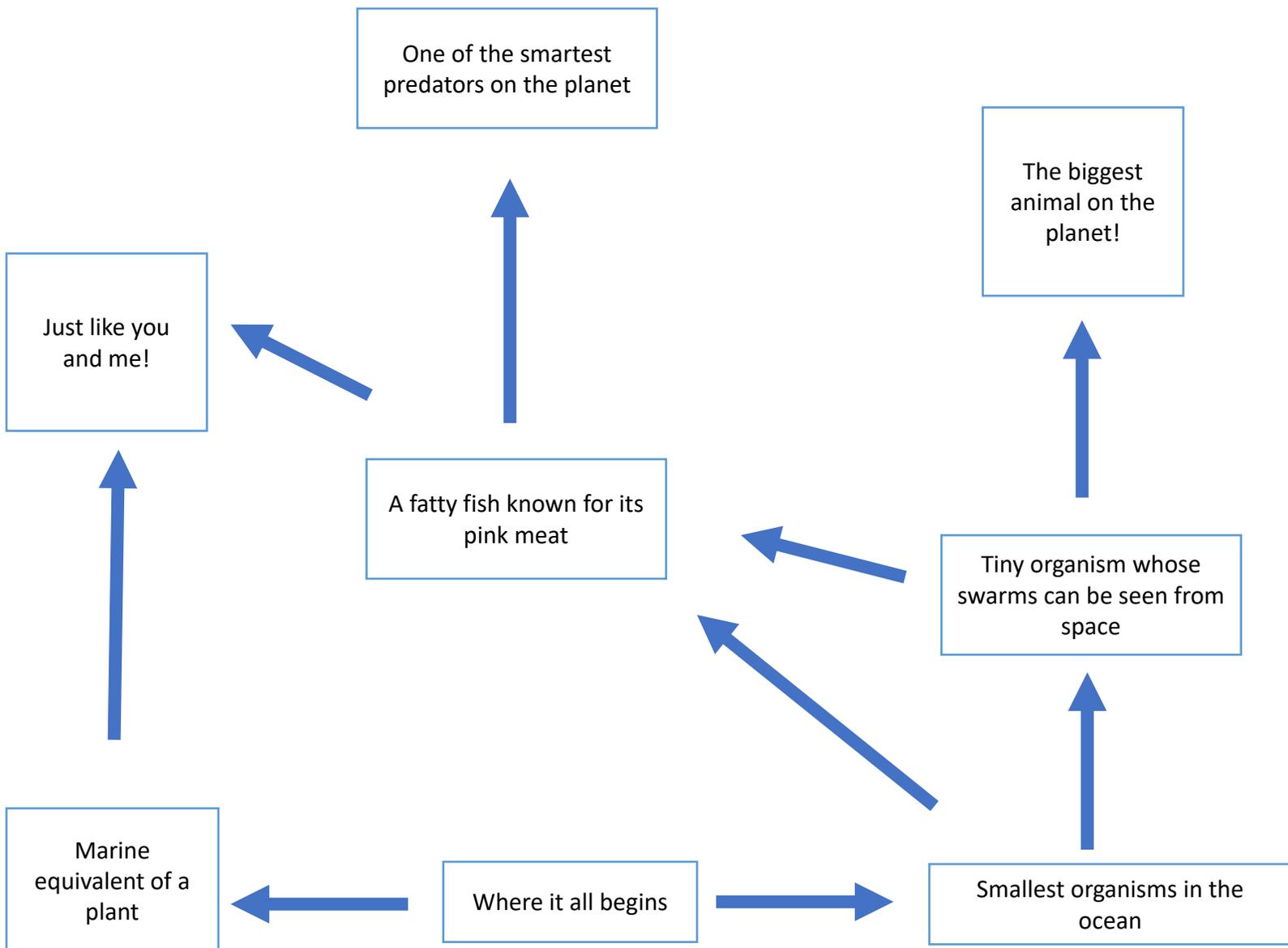
 <p>Sun</p>	 <p>Human</p>	 <p>Phytoplankton</p>
 <p>Krill</p>	 <p>Seaweed</p>	 <p>Salmon</p>
 <p>Blue whale</p>	 <p>Orca</p>	

Below are food web "disruptors" cards to print and cut out.

 <p>Fishing lines and nets</p>	 <p>Plastic waste</p>
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Celebrating the Oceans: The Big, The Small and the Weird

Use the hints below to fill in the food web by placing the cut out of the marine animal on top of the square that fits the description.



Celebrating the Oceans: The Big, The Small and the Weird

Activity Questions:

1. Did you find the activity easy or difficult? Why?

2. Once you have the food web complete, remove the Krill. Without krill, what do you think will happen to the Salmon?

3. Which animal in this food web do you think has the greatest impact on the health of this entire ecosystem? Why?

Become an Ocean Hero:

Explore ways you can take action to protect healthy ocean food webs and support sustainable seas! Did you know that overfishing leads to diminishing fish populations which disrupts the marine food web? Learn more on our [website](#)!

