

How Whales Eat



Protecting the blue planet

Materials:

- Bucket/container for water (large enough to fit a strainer inside)
- Tweezers or tongs
- Strainer
- Spoon
- Beads or beans

Background info:

- For this activity participants will be comparing and contrasting the ways that baleen whales, toothed whales, and humans capture and eat their food.
- **Toothed whales** have cone-shaped or spade-shaped teeth used for catching **prey**. They are **carnivores** that love to eat fish. Their teeth are not used for chewing, only for capturing and holding on to the food.
- **Baleen whales** feed by filtering or straining food from the water. They love to eat krill, fish, zooplankton, phytoplankton, and algae. Some, such as the right whale, are called “skimmers”. These whales swim slowly with their huge mouths open to take in large amounts of water and food. They then push the water out past their **baleen plates** and the food gets trapped inside to then swallow. Humpback whales trap their prey in a more unusual fashion by “bubble net feeding”. The feeding whale dives underneath a school of fish and exhales a large amount of air. The bubbles startle the fish and send them to the surface of the ocean. The whale then swims up through the bubbles with its mouth open to engulf its prey.

Vocabulary:

- Toothed whales - whales with teeth to catch their food
- Baleen whales - whales with baleen to catch their food.
- Baleen plates – modified teeth to catch food
- Carnivore – animal that eats only meat
- Prey – the organism that is eaten

Learning level:

- K-3

Duration:

- Variable ~15 minutes

Procedure:

- Fill the bucket with water and drop the beads into the water. This represents food particles in the ocean. Ask participants to suggest, or hypothesize, the best way to pick up this “food”.
- Have participants experiment with the tweezers, spoon and strainer to find the tool that picks up the most “food” and the least water.
- Show the participant the images of the toothed whale teeth below. Ask how the whale teeth compare to the tools they are using. Which tool matches the closest?
- Next, show the images of the baleen whale and the baleen plate. Ask how the baleen compares to the tools they used. Which tool matches the closest?
- Finally, ask the participants which tool they think shows how humans might eat?
- Share a picture of how you “ate like a whale” with us on Facebook, Instagram, or Twitter @neaq

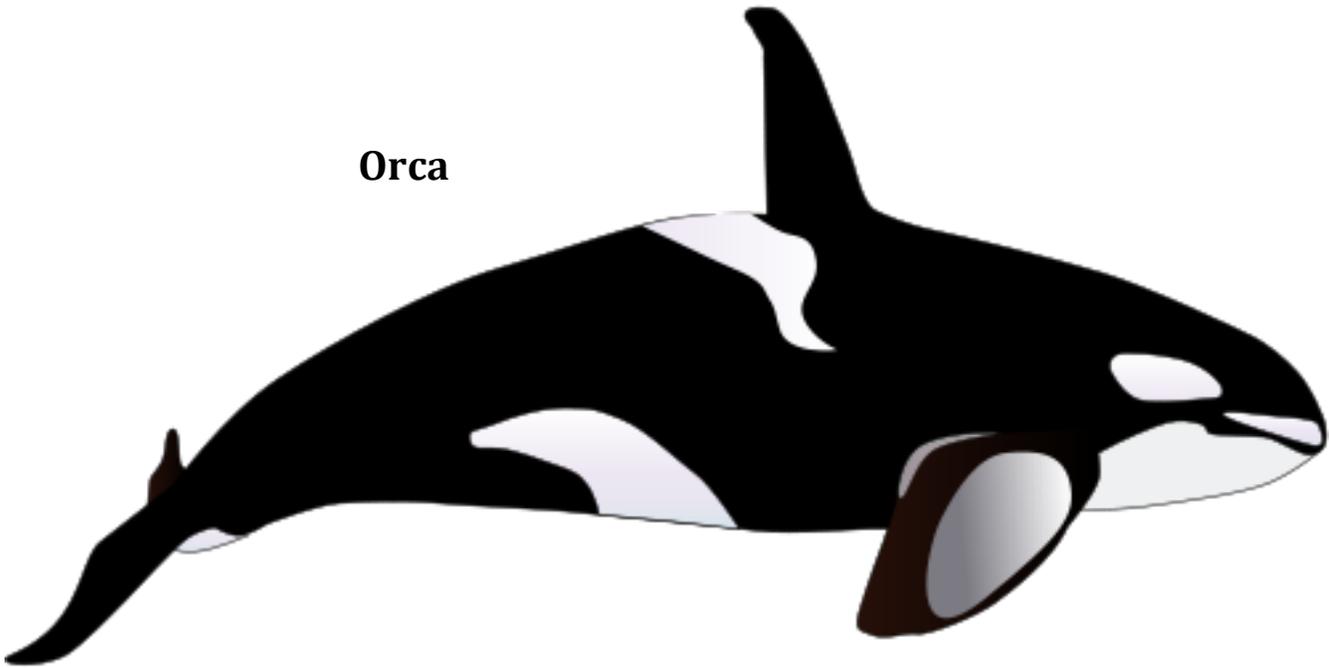
Extensions and Variations:

- Place other sized items in the bucket to represent larger and smaller sized food and challenge participants to decide which tool will pick up the most food.
- If there are several participants joining, maybe have race to see who can pick up the most food the quickest using the tools provided.
- Use this activity as an open-ended play experience – “Can you find another tool around the house that may work better at collecting the food out of the water?”

Toothed Whales vs. Baleen Whales

Toothed whale:

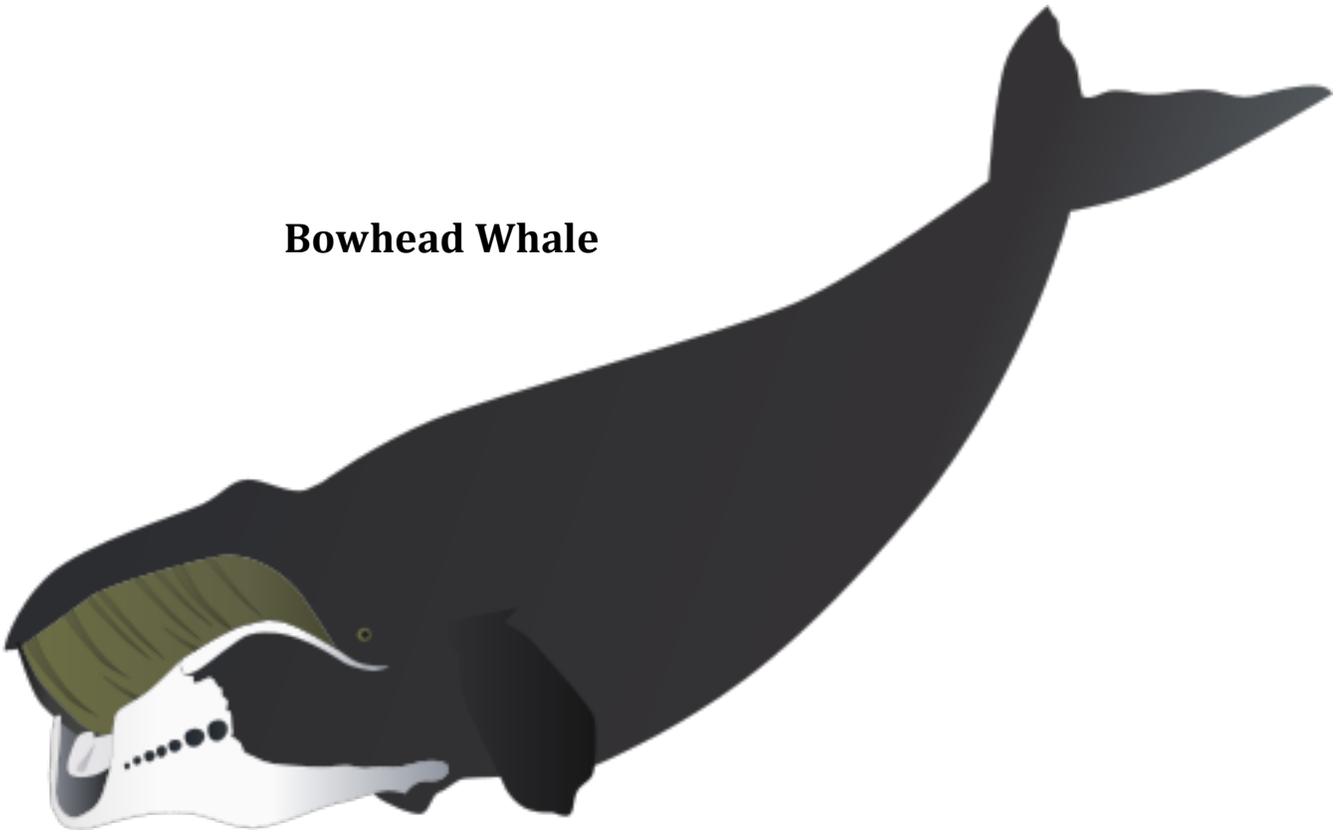
Orca



Whale Teeth

Baleen Whale:

Bowhead Whale



Baleen Plate