

# CURIOSITY AT HOME

## WHALE FEEDING



Did you know that whales feed in two different ways? There are toothed whales, called Odontocetes, such as orca and sperm whales, as well as baleen whales, called Mysticetes, such as grey and humpback whales.

*Can you find what type of food each kind of whale likes based on how it eats?*

### MATERIALS

- Large container that holds water, filled half way with water, such as baking pan or large bowl
- Something to represent plankton, such as parsley, grass, or pieces of leaves
- Something to represent fish, such as small plastic toys, candy, large cereal pieces, or packing peanuts
- Something to represent baleen whales, such as fine-tooth comb or toothbrush
- Something to represent toothed whales, such as tweezers, binder clips, or chopsticks
- Activity location that can get a little wet
- Cups
- Stopwatch or other time keeping device

### PROCEDURE

- Fill a large container halfway with water. Drop in “plankton” and “fish” and scatter around.
- Decide which type of whale to be first. Toothed whales get tweezers as teeth and baleen whales get a comb as baleen.
- Time out 30 seconds and collect as much food as you can and place it into your cup. **Note: it's going to get wet and fun!**
- Take note of which food source you got more of and which was easier to catch.
- Switch feeding mechanisms and try again.

*Experiment continued on next page...*



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Odontocetes



Mysticetes

### WHAT'S HAPPENING

This activity shows that whales evolved two different methods for feeding. Toothed whales, such as orcas use their teeth to catch bigger food like fish. They are fast and agile swimmers in order to swim after and catch this kind of food. Baleen whales, such as humpback whales, use their filter to scoop up and trap tiny organisms called plankton, like krill. Baleen is made of the same material as your hair or fingernails and it acts just like a broom or coffee filter. These bigger, slower moving whales take large gulps of water and push it out through their baleen, which traps the plankton like a filter. They use their powerful tongues to lick their lips and baleen and swallow their food.



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### K-2 EXPLORATION

Here are some questions you can use to explore together:

- Which tool is easier to pick up the big food? Which tool is easier to pick up the small food?
- Intentionally have each whale try to eat the “wrong” food with each feeding structure to test your ideas.
- What do we eat? Are we more like a toothed whale or baleen whale?
- What happens if we comb the small food fast? Slow?



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### 3–5 EXPLORATION

Explore the following questions and write down your observations on this sheet or in a science notebook.

- Which tool is easier to pick up the big food? Which tool is easier to pick up the small food?
- Intentionally have each whale try to eat the “wrong” food with each feeding structure to test your ideas.
- What is your favorite type of Cetacean (whales, dolphins, and porpoises)? Draw your favorite in its habitat with its food around it.



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### GRADE 6–8 EXPLORATION

Explore the following questions and write down your observations on this sheet or in a science notebook.

- Which tool is easier to pick up the big food? Which tool is easier to pick up the small food?
- Intentionally have each whale try to eat the “wrong” food with each feeding structure to test your ideas.

#### Discovering Whale Sizes

1. Find a large outdoor area with cement, or a long hallway indoors.
2. Using sidewalk chalk or tape, mark a starting point to be the head of a whale.
3. Predict how long the different whale species might be by making another mark on the ground with chalk or tape. Measure the distance and write it down in your science notebook or on a piece of paper. Here’s a table you can use for your recorded predictions.

TYPE OF WHALE	PREDICTED LENGTH
Grey Whale	
Orca Whale	
Humpback Whale	
Harbor Porpoise	
Fine Whale	
Common Dolphin	

4. Use the answer key below to see how close your prediction was. Were your predictions correct?
5. Lay down and mark your own length. How does your size compare to each of the whales?
6. What do you notice about the size of the whale and what kind of feeding mechanism they have? Is there a pattern?

Answer Key: Grey Whale: 49 feet | Orca Whale: 30 feet | Humpback Whale: 52 feet | Harbor Porpoise: 5.5 feet | Fin Whale: 79 feet | Common Dolphin: 8 feet



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