

STEAM Build a Whale Scale Investigation

You Will Need:

- A tape measure or 1 metre ruler
- 30 metres of string or rope
- Volunteers to act as markers
- Build a Whale Activity Sheet
- A big court, empty car park or field



Research:

Predict the length of each whale species below, using a search engine to find images of each if needed. Then, research the average length of each, making sure to use a reliable source. Finally, convert the average length into centimetres and calculate how much bigger the whale is than you.

	Predicted length	Average length (metres)	Convert metres into centimetres	How many times bigger is this whale compared to you?
Blue whale				
False killer whale				
Orca				
Sperm whale				
Humpback whale				
Bryde's whale				
Southern right whale				
Pygmy sperm whale				
Long finned pilot whale				

Graphing Data:

Present the data from the first two columns of the table above as a graph, using the grid below. Think about which graph would be best to show the information.



Measure It Out:

Whole class or group activity

1. Using a ruler or measuring tape, put a mark on the string or rope in one metre increments.
2. Find a large, open space where you can completely spread out the string and have a student stand at one end. This will mark the 'head' of the whale.
3. Then measure out the average lengths of the whales from the earlier chart. Start at the same 'head' spot each time, and get a student to stand at the 'tail' of each whale as the measurement is done. You should now be able to see how each whale compares to the others in size.

Making Connections:

Which whale was the biggest, which whale was the smallest, and what was the size difference between them?

Find out about the feeding habits of the biggest whale. Look for information such as how much they eat, what their diet consists of, and their feeding method.

Choose two different whale species from the grid. How large is each whale, and what is the size difference between them?

Use the graph below to draw one of the whale species underneath the blue whale to the correct scale.

Key:
1 square = 1.2m

