



KIDS ENVIRONMENTAL LESSON PLANS

This lesson developed by:



How Long am I?

Overview:

Less than 5% of the ocean has been explored. However, we do know that many of Earth's largest-sized species are found in the ocean. In fact, the largest animal known to have ever lived is the blue whale. To gain perspective on how large some of the ocean's giant creatures can grow, students will use a rope to demonstrate their length.

Ocean Literacy Principles:

5. The ocean supports a great diversity of life and ecosystems

Key Concepts:

- Most of the Earth's largest species are found in the ocean
- By using a simple rope, students can learn how large some of these creatures can grow

Materials:

- Rope – 36.6m or 120ft long (can be different pieces tied together)
- Measuring tape
- Roll of masking tape
- Sharpie
- Large outdoor space

Set-up Prior to Activity:

- On 7 different pieces of masking tape, write the following:
 - Lion's Mane Jellyfish (36.6m or 120ft)
 - Blue Whale (33m or 108ft 3in)



How Long am I (cont.)

- Sperm Whale (24m or 78ft 9in)
- Whale Shark (18.8m or 61ft 8in)
- Giant Squid (12m or 39ft 4in)
- Great White Shark (7m or 23ft)
- Leatherback Turtle (2.13m or 7ft)

Duration:

20-30 min

Physical Activity:

Moderate

Background:

Below are the longest lengths recorded for (and some fun facts about) some of the largest known marine species:

Lion's Mane Jellyfish (36.6m or 120ft))

A cold water species, the lion's mane jellyfish is found in the waters of the Arctic, northern Atlantic and northern Pacific Oceans. They are named for their trailing tentacles that look like a lions' mane. The lion's mane jellyfish use their stinging tentacles to capture, pull in and eat prey.

Blue Whale (33m or 108ft 3in)

Blue whales are the largest animals ever known to have lived on Earth (even compared to some of the great dinosaurs). They are baleen whales, which means they have fingernail-like bristles, which allows them to filter feed on krill (shrimplike animals). They feed by first gulping an enormous mouthful of krill and water. Then they use their massive tongue to force the water out – leaving thousands of krill behind, which are swallowed.

Sperm Whale (24m or 78ft 9in)

Sperm whales are found in all oceans excluding the high Arctic. They are one of the deepest diving mammals in the world with one of their major prey sources being deep-water squid. The sperm whale is the largest toothed whale, and is very distinctive from other whales with its giant square-shaped head and wrinkly skin.

Whale Shark (18.8m 61ft 8in)

The largest fish in the ocean, whale sharks prefer warm waters and populate all tropical seas. To eat they filter feed, swimming with their mouths wide open to collect plankton and small fish. Although massive, these fish are quite docile creatures.

Giant Squid (12m or 39ft 4in)

Found in the deep ocean, giant squids are elusive and challenging to study in the wild. They have eight arms and two longer feeding tentacles that help them bring food to their beak-like mouths. They feed



How Long am I (cont.)

on fish, shrimp and other squid.

Great White Shark (7m or 23ft)

Located in cool, coastal waters throughout the globe, great whites sharks are the largest predatory fish in the ocean with prey items that include sea lions, seals, small whales and even sea turtles. Their torpedo-shaped body and powerful tails allow them to propel through the water at speeds of up to 15 miles per hour.

Leatherback Turtle (2.13m or 7ft)

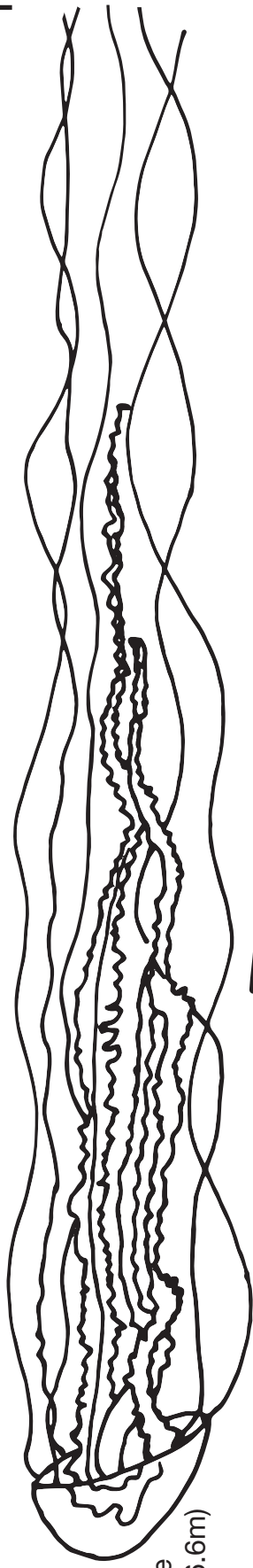
The largest turtles on Earth, this species is different from other sea turtles because it lacks a hard, bony shell. Instead its carapace is covered in a layer of thin, tough, rubbery skin. Leatherback turtles have the widest distribution of all sea turtles, found as far north as Alaska and as far south as the southern tip of Africa. They feed almost exclusively on jellyfish.

*All of the lengths were collected from [Sizing ocean giants: patterns of intraspecific size variation in marine megafauna](#) by C.R. McClain et al.

Activity:

1. Begin the activity with a verbal “brainstorm” to assess prior knowledge. If you have a whiteboard, you can make a list of the answers. Ask students guiding questions such as:
 - What are some of the largest animals found in the ocean?
 - Have you seen any of these creatures in person? Or a museum?
 - Why do many of the largest animals on the planet live in the ocean?
 - How long are some of these sea creatures?
2. To provide perspective of how large these creatures actually are, tell the students they will be using a rope to demonstrate the length of some of the ocean’s largest animals.
3. The students can lie out the length of rope, which will be the size of the largest lion’s mane jellyfish recorded. Choose one end to be the start for all of the ocean creatures. At the opposite end, put the masking tape tag that says “Lion’s Mane Jellyfish (36.6m or 120ft).” For each of the other creatures, have the students measure from the start end of the rope to the appropriate length and place the masking tape tag on. (You can also use separate ropes for each ocean creature.)
4. Once all of the tags are added to the rope, have the students determine how many classmates head to foot would it take to be the same length as all of the creatures. Student can lay head to foot along the length of the rope. Either you or a designated student can determine how many students it takes to be the same length as each creature. Write down your findings.
5. Have a follow up discussion about what size the ocean animals are comparable to, for example a school bus.

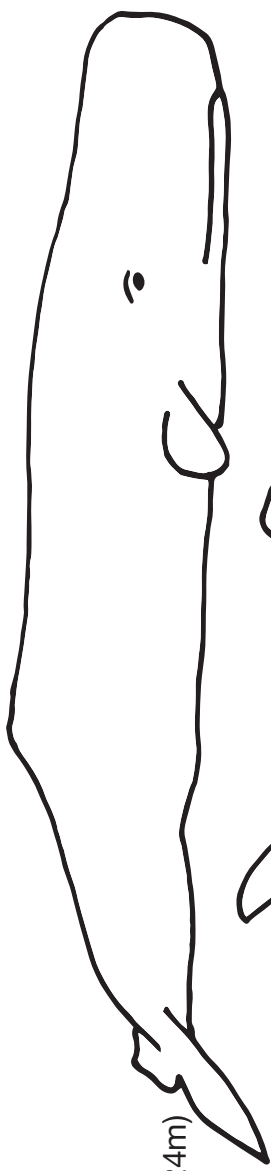
40 meters



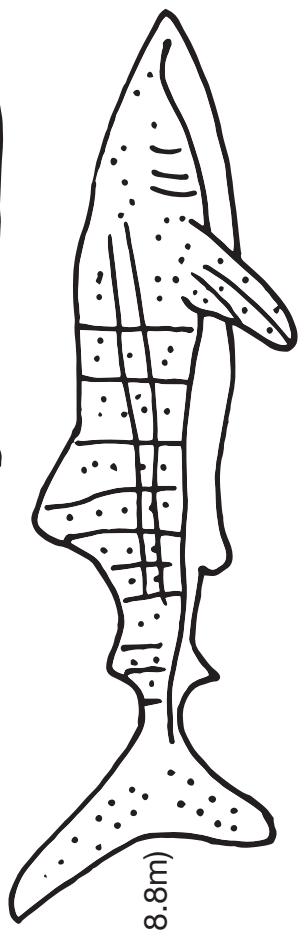
Lion's Mane Jellyfish (36.6m)



Blue Whale (33m)



Sperm Whale (24m)



Whale Shark (18.8m)



Giant Squid (12m)



Great White Shark (7m)



Leatherback Turtle (2.13m)

How long are the largest marine animals?