

# Sharks Great and Small

**Audience:** 3<sup>rd</sup> – 5<sup>th</sup> Grade, with Middle and High school extensions

**Duration:** 60 minutes

**STEM Process Skills:** what process skills are used throughout

**Learning Objectives/Goals:** The student will be able to estimate approximate lengths of various shark species.

**TEKS:**

3<sup>rd</sup> Grade – Science 1, 2, 3, 4; Math 2, 4

4<sup>th</sup> Grade – Science 1, 2, 3, 4; Math 2, 4

5<sup>th</sup> Grade - Science 1, 2, 3, 4; Math 2, 4

**Ocean Literacy Principles:** 5

**Vocabulary:** estimate, length, measure

**Set Up/Break Down:** Find a sidewalk near your classroom or use the playground

**Sept. 25, 2018**

**Description:** Are sharks really huge, man-eating beasts? Actually no. In this activity students will estimate and measure out lengths of sharks to discover how long sharks really are.

**Materials:** tape measure or meter stick (1 per group), colored sidewalk chalk (1 – 2 per group)

**Procedures:** -

- Divide the students into teams of four. Each team should have a supply of colored sidewalk chalk and a tape measure or meter stick.
- Assign each team four sharks to study. Focus points will be length and width (if the information is available).
- On an outdoor surface, have the students estimate and draw the length of each of their sharks.
- In a different color chalk, redraw the same shark using the tape measure or meter stick for accuracy.
- Compare the groups' results.

**Extensions:**

- Convert the units from meters to feet (or centimeters to inches)
- Determine the percent of error in each estimate.
- Use ratios to compare the sharks' widths to their lengths and make scaled drawings.
- Research different shark species to learn about their habitats, diets, and other characteristics.

**Background Information:**

Most people believe that all sharks are large and dangerous. But in fact, most are not large at all, and only 27 of the 350 species are considered dangerous to humans. On average, sharks are about 1.6 meters (5 feet) long with most being only 1 m (3 feet) or less. Some measure only a few centimeters when fully grown. Just because a shark is large, does not mean it is dangerous. The two largest sharks, the whale shark and the basking shark are harmless plankton eaters, posing a threat only to the boat of the unwary person who collides with the gentle giant as it basks near the surface.

**Resources Used:**

texasaquaticscience.org

www.iucn.org

www.fishbase.org

oceantoday.noaa.gov

www.arkive.org

www.eol.org

## Sharks Great and Small

### Shark

### Size

Atlantic angel shark	1.5 m
Atlantic sharpnose shark	1.0 m
Basking shark	10.6 m
Blacknose shark	1.66 m
Blacktip reef shark	2.5m
Bonnethead shark	1.25 m
Bull shark	3.0 m
Catshark	.9 m
Common thresher shark	6.0 m
Dwarf shark	.15 m
Dusky shark	3.33 m
Fine tooth shark	1.5 m
Florida smoothhound	91 cm
Friiled shark	2.0 m
Goblin shark	3.5 m
Great hammerhead shark	6.0 m
Great white shark	6.4 m
Lemon shark	3.33 m
Leopard shark	1.8 m
Nurse shark	4.25 m
Sandbar shark	2.5 m
Sand tiger shark	3.0 m
Scalloped hammerhead	3.0 m
Short fin mako shark	3.66 m
Silky Shark	3.0 m
Smalltail shark	1.25 m
Spinner shark	2.5 m
Tiger shark	5.5 m
Whale shark	18 m
Wobbegong shark	2.4 m

Helpful hint:

1 meter =  
3.28 feet

