

# Manatee Sanctuary Area

**What is a manatee sanctuary?** A manatee sanctuary area is area that is off limits to human activity.

**How is a manatee sanctuary created?** A manatee sanctuary is created through scientific research. Scientists consider what areas are vital to manatee survival based on water temperature and areas where they can feed and rest without being disturbed.

**What is the best way for you to view manatees?** In order to ensure that the manatees stay undisturbed and safe you should look but never touch manatees.

**Where can you find manatees?** Manatees can be found in shallow, slow-moving rivers, estuaries, saltwater bays, canals, and coastal areas. In the winter months you are more likely to find manatees in Florida and in the summer months they are most commonly sighted in Alabama, Georgia, and South Carolina.

**What type of behavior can you expect from a manatee?** Manatees are known as gentle, slow moving animals that spend a lot of time resting, eating, and traveling as they are migratory animals.

**What types of legal protection is there for manatees?** Manatees located in the United States are protected under federal law by the Marine Mammal Protection Act of 1972, and the Endangered Species Act of 1973. Harassing, hunting, capturing, or killing any marine mammals are illegal due to these laws.

**How long do manatees live?** The average lifespan of a manatee is 60 years or more.

**What are some of the dangers manatees face?** Deadly collisions with watercrafts, swallowing fish hooks or liter, and loss of habitat.

## **Objectives:**

### **Fifth Grade:**

Understand how manatees respond to environmental changes.

Use your geographic knowledge when discussing manatee sanctuaries and what scientists look for when designating areas as manatee sanctuaries.

Write a short story or haiku about manatees including personification and figurative language.

Understand how to find the area of a parallelogram.

**Science:**

SC.5.L.15.1 Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

One of the biggest threats manatees face is loss of their habitats. How do manatees respond to environmental changes? Use additional sources to research this answer such as the internet or appropriate reading material.

**Social Studies:**

SS.5.G.4.1 Use geographic knowledge and skills when discussing current events.

Use your geographic knowledge when discussing manatee sanctuaries and what scientists look for when naming an area a manatee sanctuary.

**Reading and Language Arts:**

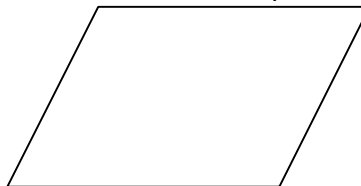
LA.5.4.1.2 The student will write a variety of expressive forms (e.g., fiction, short story, autobiography, science fiction, haiku) that employ figurative language (e.g., simile, metaphor, onomatopoeia, personification, hyperbole), rhythm, dialogue, characterization, plot, and/or appropriate format.

Write a short story or haiku about manatees using the information you learned today and use personification in your short story or haiku along with appropriate format.

**Mathematics:**

MA.5.G.5.4 Derive and apply formulas for areas of parallelograms, triangles, and trapezoids from the area of a rectangle.

Imagine that a manatee sanctuary is in the shape of a parallelogram with the given dimensions: base 7.2 miles and height 10.4 miles. What is the area of the parallelogram?



What is the area of this parallelogram?