

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_



## Manatee Strike Zone

## STEM Sims

### Lesson 3: How Does the Type of Vessel Affect the Number of Manatee Strikes?

Boats come in many sizes and shapes. Some are fast, while others are built for cruising. Does the type of boat affect the likelihood that the vessel will strike a manatee?

#### Doing the Science

1. Start the Manatee Strike Zone Simulation by clicking on the “Sim” tab.
2. Click the mouse in a location in Zone 1 and drag the mouse to Zone 2 before it’s released. Note a red path and boat appears.
3. Click the mouse in a location in Zone 2 and drag the mouse to Zone 3 before it’s released. Note another red path and boat appears.
4. Note and record in Table 1 the number of manatees on the screen (it should be 5).
5. Make sure that you select the “Red boat” at the bottom right-hand side of the screen.
6. Click the “Run” button. Let the time run for 1:00 minute.
7. At the 1:00 minute mark, click the “Pause” button.
8. Note and record in Table 1 the number of manatee strikes shown in the display in the upper right-hand corner of the screen.
9. Click on the “Restart” button.
10. Click on the “Yellow Boat” to select a new type of vessel.
11. Click the “Run” button. Let the time run for 1:00 minute.
12. At the 1:00 minute mark, click the “Pause” button.
13. Note and record in Table 1 the number of manatee strikes shown in the display in the upper right-hand corner of the screen. Repeat steps 10 – 13 for the Blue boat.

**Table 1.**

Boat Type	Number of Manatees	Number of Strikes (in one minute)
Red		
Yellow		
Blue		

#### Do You Understand?

1. How did the type of boat affect the likelihood that a manatee strike would occur?
2. What suggestions regarding manatees would you make to the Fish and Wildlife officials based on your results from this experiment?