Name_____ Period _____ Date _____

Manatee Strike Zone

STEM Sims

Lesson 4: How Does the Boat Dock Location Affect the Number of Manatee Strikes?
Docks for launching and landing watercrafts are a necessary part of any planned waterfront development. Does the location of a boating dock affect the likelihood that a boat 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.   Describe the general locations of the boating paths (the red lines) in Table 1.
5.   Note and record in Table 1 the number of manatees on the screen (it should be 5).
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 a new location in Zone 1 and drag to Zone 2 to make a new boating path. Describe this new path in Table 1.
11.   Repeat steps 5 – 9.
12.   Click on a new location in Zone 2 and drag to Zone 3 to make a new boating path. Describe this new path in Table 1.
13.   Repeat steps 5 – 9.

Table 1.

Boat Path Zone 1 – Zone 2	Boat Path Zone 2 – Zone 3	Number of Manatees	Number of Strikes (in one minute)

Do You Understand?
1.   How did the location of the boating docks 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?