

**Lesson 4: How Does Location Affect Storm Surge Damage?**

Some coastal locations are heavily populated, while others are fairly remote. How does the location where a hurricane strikes land impact the damage done on property and people due to a storm surge?

Doing the Science

1. Start the Storm Surge Simulation by clicking on the “Sim” tab.
2. Select “Basic Factors.”
3. Select “Water Depth.”
4. Choose one of the three different water depths.
5. Make sure to keep all other factors constant, that is, do not change water depth or tides.
6. Select the “Location” icon. Select one of the three locations.
7. Click on the “Run” icon.
8. Record the Cost and Damage values displayed in the Damage Assessment portion of the screen in Table 1 below.
9. Again, click on “Location.” Select a different location from step 6. Repeat steps 7 – 8.
10. Repeat step 9 for the remaining location.

Table 1.

Location	Cost of Damage (\$)	Damage Factor
A		
B		
C		

Do You Understand?

1. What are some factors that you think might impact the amount of physical property damage present in a given location?
2. How does location impact the damage done by a storm surge?