Station 1 - Erosion: Water

Water erosion is the process by which water moves sand or soil from one location to another. Rainwater running off land carries away sediment, leaving behind an eroded path called a gully. Over time, as water keeps flowing in the gully, it widens and deepens to form a stream or river. Water erosion may greatly change the environment especially if there is nothing to support the sand or soil.

Materials:
Sand
2 large pans
250 mL Rain cup (cup with 4-6 small holes punched in the bottom)
Ruler
Popsicle sticks
500 mL beaker

Procedures:
1. Make a "sand mountain" by piling sand up on one side of pan #1.
   This mountain should be 10 centimeters high (use the ruler).
2. Hold the ruler in the mountain so that the sand covers up to the 10 centimeter mark.
3. Hold the "rain cup" over your mountain and fill the cup with 250mL of water.
   The water will now "rain" on your mountain.
4. After the rain has stopped, measure the height of the remaining sand and record that number on your lab sheet.
5. Make a second mountain in pan #2 exactly like the first.
6. Using the popsicle sticks, build a wall on the open side of the mountain.
7. Hypothesize what will happen when this new mountain is "rained" on by completing the following sentence.

If the mountain is supported by a retaining wall, then there will be (more / less) water erosion. **(circle one)**

8. Now "rain" on your new mountain and record the height on your lab sheet.