Name: _____

Properties of Water

Date: _____

Block: _____

Part A: Read the instructions below and answer the questions accordingly. Be sure to staple or tape this worksheet in your lab notebook, and write each appropriate section in your lab notebook. <u>Your lab report is due at the beginning of next class!</u>

- Lay your penny flat on the lab table.

Question:

1. How many drops of water will fit onto the penny (heads up) without running over the edges?

Write your hypothesis here: Answer:_____

- Using your dropper and bottle of water, place water drops onto the penny (heads up), one-at-a time. Keep track of the number of drops you can fit before the water flows over the edges.
- Conduct three trials. Then conduct two trials using your dropper to place water on to the penny (tails up).

Data Table 1: This table displays the trials for the number of drops that can fit on a penny.

	Trial 1	Trial 2	Trial 3
# of Drops on Penny (Heads)			
# of Drops on Penny (Tails)			

2. How many drops fit onto your penny? Answer:_____

3. Draw a picture of how the drops look on your penny.

4. Why did you get the number of drops you did? Use what you know about the properties of water to explain.

5. Did the number of drops change when placed on the tails side of the penny? Why or why not?

Part B:

- **Take your paper towel and roll it up tightly.**
- **Place one end of the towel in your beaker of water.**
- **Observe what happens and answer the following.**

Question:

1. What happened to the water level in the beaker?

2. What happened to the paper towel?

3. Using your knowledge of the properties of water, explain what you observed in regard to the paper towel and water.

Part C: Place 10 drops of water on your table top. Try to merge the drops into 1 big one using a toothpick.

1. Describe what happens

Try to separate the big drop into small ones using a toothpick.

2. Describe what happens.

3. Using your knowledge of the properties of water, explain what you observed.

Table 2: Fill in the chart and **check off** which water property/properties was/were working to make this phenomenon happen. Explain your reasoning by answering the questions below.

	SURFACE TENSION	COHESION	ADHESION
Water on a penny			
Paper towel			
Splitting water with toothpick			

1. Explain how the water didn't spill right away when it started rising over the penny.

2. Explain how the water moved up the paper towel to make most of it wet

3. Explain how the water behaved when you moved it with the toothpicks.