

Name _____

Block _____

Date _____

Water Properties Lab

Materials List: Glass of water, paperclip, penny, soda straw, glass slide, glass test tube, a strip of jeans, paper strip with a marker dot, wax paper.

The purpose of this lab is to determine the effect of the different substances on the properties of water.

In particular you will be experimenting with the new concepts of water. (adhesion, cohesion, surface tension, and capillary action of water)

In addition you will be determining if the substance that water is interacting with is polar or not polar.

Hint As you know, water is polar. When water is grouped together (beading) and cannot penetrate through a substance then that substance is **non-polar**.

When water can penetrate through a substance, and water seems to expand from its original spot, the substance is **polar**.

YOU WILL:

1. **Write a hypothesis for each of the new water concepts above.** To do this you need to pick a specific substance from the materials list to test for each hypothesis. You should have eight hypotheses.

For example, one hypothesis might be: If the substance used is the penny then the water will group together and show surface tension.

2. **After getting approval for all of your hypotheses you will need to write your procedures. It may help you to look at the data table that is given to you.**
3. **Complete the data table**
4. **Write a conclusion**

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DATA TABLE: Check the box if the property occurred in your experiment with that substance. Must select either Polar or Non-Polar for each one and any other additional properties.

Substance	Polar	Non-Polar	Adhesion	Cohesion	Surface Tension	Capillary Action
1. Putting paper clip in water						
2. Pouring water on penny						
3. Putting regular straw in water						
4. Putting jean strip in water						
5. Putting paper strip with dot in water						
6. Pouring water on glass slide						
7. Pouring water on wax paper						
8. Putting water in test tube						

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Write Observations for each substance below. Write what happened?
How do you know those substances possess the qualities of the ones you checked?

Observation for #1

Observation for #2

Observation for #3

Observation #4

Observation #5

Observation #6

Observation #7

Observation #8
