

Drops on A Penny Lab

Cohesion

Water molecules are attracted to other water molecules. The oxygen end of water has a negative charge and the hydrogen end has a positive charge. The hydrogens of one water molecule are attracted to the oxygen from other water molecules. This attractive force is what gives water its cohesive properties.

Surface Tension

Surface tension is the name we give to the cohesion of water molecules at the surface of a body of water. The cohesion of water molecules forms a surface "film" or "skin." Some substances may reduce the cohesive force of water, which will reduce the strength of the surface "skin" of the water.

- Step 1: Rinse a penny in tap water and dry completely.
- Step 2: Place the penny on paper towel.
- Step 3: Use an eye dropper to place drops of WATER on the penny (one at a time) until ANY amount of water runs over the edge of the penny.
- Step 4: Record the number of drops for that trial in the table.
- Repeat Steps 1 - 4 three more times before calculating your average.

Modified from <https://www.sciencespot.net/Media/pennylab.pdf>

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Take a guess ...

How many drops can you put on the penny before the water runs over?

Actual Amount = -----

Cohesion

Water molecules are _____ to other water molecules. The _____ end of water has a _____ charge and the _____ end has a _____ charge. The hydrogens of one water _____ are attracted to the oxygen from other water molecules. This attractive _____ is what gives water its _____ properties.

Surface Tension

Surface tension is the name we give to the _____ of water molecules at the _____ of a body of _____. The cohesion of water molecules forms a surface "_____ "or " _____ " Some substances may the cohesive force of water, which will reduce the _____ of the surface "skin" of the water.

Use this information to help you answer the questions on the lab sheet after you have completed the experiment!