

# JR-SCIENTISTS

# DROPS ON A PENNY

Learn from things found in your purse or pocket?  
How many drops of water can fit on a penny?

## INSTRUCTIONS

**STEP 1:** Add water to both of your bowls, and to one of them add green food coloring. This is an optional step if you want to see the drops a bit better.

**STEP 2:** Use an eyedropper or pipette to pick up and carefully drip one drop of water at a time onto the penny.

**STEP 3:** Count how many drops you can fit onto one penny until the water overflows.

**STEP 4:** Record your results. Try the same experiment with other coins.

## SUPPLIES

Pennies  
Eyedropper  
or pipette  
Water

## THE SCIENCE

You might think that you can't fit many drops of water on the surface of a penny. Pennies are just so small!

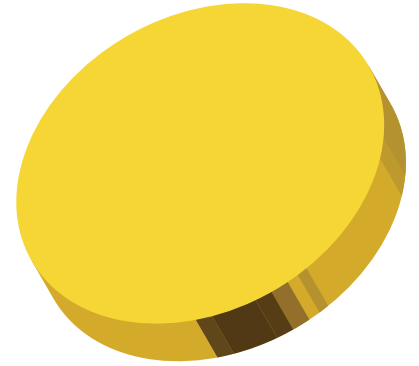
Surface tension and cohesion is the reason you can get so many drops of water on a penny. Cohesion is the "stickiness" of like molecules to one another. Water molecules love to stick together! Surface tension is the result of all the water molecules sticking together.

Once the water has reached the edge of the penny, a dome shape begins to form. This is due to the surface tension forming a shape that has the least amount of surface area possible (like bubbles)!



# Drops on a Penny Observations

Use this worksheet to process and evaluate your work.



How many drops of water do you think will fit on top of the penny?

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How big did the drop on the penny get before it finally spilled over?

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How many drops of water were you able to add before the water ran over?

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Try the experiment with different liquids or other things you can find.

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What did you learn about surface tension?

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