



Science Experiment:

Drops on a Penny

Project: Soil and Water, Science

Supplies:

- Pennies
- Water
- Pipettes
- Paper Towels

Time: 20-30 minutes

What to Do:

1. Guess how many drops of water you can fit on the front of a penny.
2. Try it. Using the pipette, start placing drops of water on the penny.
3. Count the drops of water.
4. Observe what happens. Share with the group.
5. Graph the results of your entire group.
6. Repeat the experiment to see if there is a change in the number of the graph.

Reflect:

1. How many drops will stay on the face of the penny without spilling water off the sides?
2. What did you notice about the drops of water?
3. What did the drops do?
4. What did they look like?
5. Where did they go?

Apply:

1. Why is surface tension important?
2. In what ways do we see surface tension in our lives?
3. How does surface tension relate to our food?

Facilitators Extra:

What's Happening?

You just saw two important forces tugging on the water: cohesion and adhesion. Cohesion holds the droplets together and adhesion holds the drops on the surface of the coin. The cohesive force pulls the water droplets (or molecules) together. Each successive drop sticks to the water that's already on the coin. We often call this cohesive force "surface tension." It's what makes drops look like they're wrapped in invisible skins.