Surface Tension Experiment

How many drops of water can you put on the top of a penny before it spills over?

More than you may think!

Materials:
- A penny
- Eyedropper
- Water
- Flat surface

ACTIVITY:

1. Place the penny on a flat surface
2. Using the eye dropper drop water one drop at a time to determine on the top of the penny
3. Count the number of drops before it spills over
4. Try again…see if you can get *more* on the second time
5. Try warm water to see if you get more or less or the same
6. Try ice water to see if you get more or less or the same

OBSERVATION:

1. Do the water drops stay apart?
2. Why not?
3. Does the water stay "flat" on the top of the penny?
4. Why not?

ANSWERS:

1. Water drops are attracted to each other. They don't like to be alone, especially on the surface. They form a "film" known as surface tension.
2. Check out: http://hyperphysics.phy-astr.gsu.edu/hbase/surten.html
3. Surface tension allows the water drops to "bulge" and cling together on top of the penny
4. Check out: http://hyperphysics.phy-astr.gsu.edu/hbase/surten.html#c2