

JR-SCIENTISTS

SURFACE TENSION

Explore surface tension of water when you try this fun paper clip experiment with the kids.

INSTRUCTIONS:

STEP 1: Fill a glass with water as full as you can, without any spilling out.

STEP 2: Now add paper clips, one at a time.

What do you notice starts to happen to the water?

STEP 3: Continue adding more paper clips until finally, the water begins to spill over the edge. Did the water behave the way you thought it would? How many paper clips did it take to push the water out?

SUPPLIES

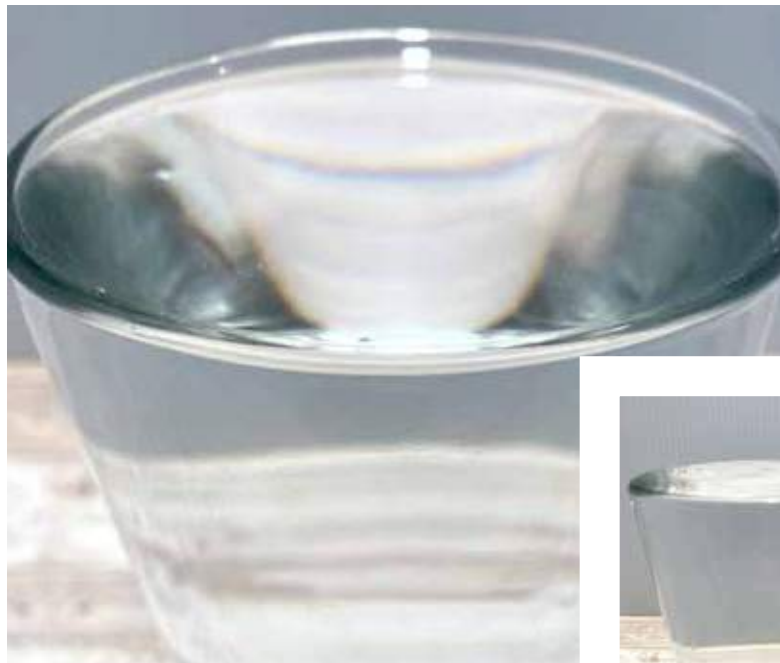
Glass
Water
Paper clips

THE SCIENCE

Were you surprised to discover that a lot more paper clips would fit in the glass than you predicted?

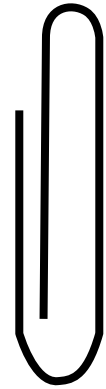
Surface tension and cohesion is the reason you can get so many paper clips in the glass without it spilling. Cohesion is the "stickiness" of like molecules to one another. Water molecules love to stick together! Surface tension is the result of all the water molecules sticking together.

Once the water has reached the top of the glass, 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)!



Surface Tension Observations

Use this worksheet to process and evaluate your work.



Was it easy to make your paper clip float? Why or why not?

What do you notice happens to the water?

Did the water behave the way you thought it would?

How many paper clips did it take to push the water out?

What did you learn?
