

Experiment #1

WHAT YOU NEED: All the pennies you can find - glass of water

WHAT TO DO:

Fill up the glass with water and place it on a level table. With your fingers close to the water, *gently* drop in pennies, penny by penny. Don't make waves when you do this. How many will it take to overflow the glass? Look closely at the water.

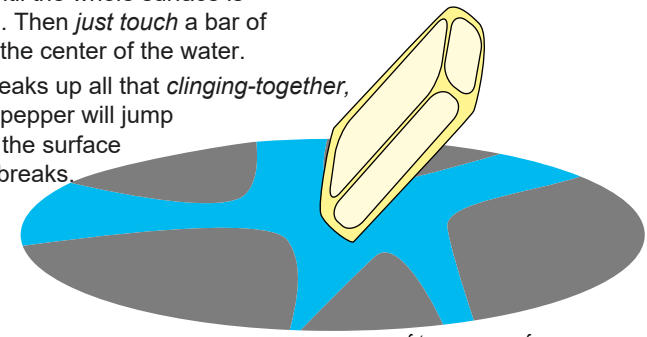
SO WHAT:

It took lots more pennies than you thought, and the water lifted *up and out* of the glass, held together by those molecules clinging onto each other - surface tension.

Experiment #2

Sprinkle pepper onto a bowl of water until the whole surface is covered. Then *just touch* a bar of soap to the center of the water.

Soap breaks up all that *clinging-together*, and the pepper will jump back as the surface tension breaks.



Dear Beakman,
What is that thick line floating on top of water?
Wes Bouges
Auburn, Massachusetts

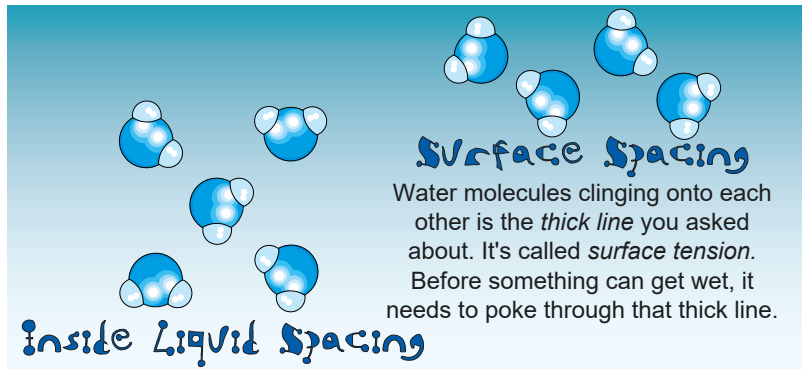
Beakman or Jax
P.O. Box 30177
Kansas City, MO 64112
Questions, name & address

Dear Wes,
The smallest chunks of water we can have are water molecules, and they are attracted to each other in all directions.

Inside liquid water the molecules can cling onto each other top-ways, bottom-ways, side-to-side - any way they can.

But on the surface of water, there are fewer directions for them to cling, so they grab onto each other more tightly the only way they can - sideways.

Beakman
Beakman Place



P.S. from Jax: If you ice-skate, you'll notice that the surface of ice is different than the inside of ice - it's slippery. New discoveries about water tell us that it's from frozen water molecules vibrating.