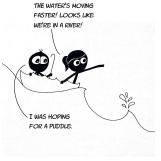
SCIENCE MOM'S Guide to WATER Part 2

WHO KNOWS? WE

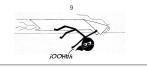


available at www.jennyballif.com

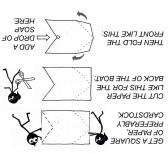


SO WHAT HAPPENS

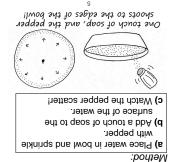
NOW? WHERE DOES



THEN SET THE BOAT IN WATER AND WATCH IT GO!



2. Soap Boat

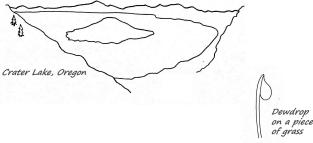


- · Water
- · Concentrated dish soap · Cround black pepper
 - · Rowl or plate

Materials:

1. Pepper Scatter

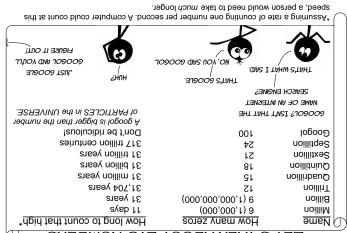
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Think of a big lake versus a dewdrop. Pretty big difference in size, right?

The dewdrop is SUPER small compared to the lake. But a water molecule (the smallest bit of water you can have) is MUCH smaller than a dewdrop.

A single drop of water has more than 1.000.000.000.000.000.000.000 water molecules! That huge number with 21 zeros is called a sextillion, and it is a TRILLION TIMES BIGGER than one billion.



LET'S TALK ABOUT BIG NUMBERS

3. Floating Pin

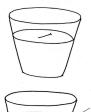
Materials:

- · A small pin or needle
- Bowl or cup
- · Concentrated dish soap

Method:

a) Fill bowl or cup with water and carefully place pin on surface. Hint: tweezers may help. The pin must be flat with the surface of the water. It will sink if it comes in at an angle.

- b) Add a touch of soap.
- c) Watch the pin sink!







negative sides. form between the positive and negative (-). Hydrogen bonds (🛡) molecule is part positive (+) and part Positive loves negative. Each water Because opposites attract!



want to be by each other? But $\ensuremath{\mathcal{M}}\ensuremath{\belowdexpt{\mathcal{M}}}\ensuremath{\belowdexpt{\mathcal{M}}}\ensuremath{\belowdexpt{\mathcal{M}}}$ do water molecules

4. Floating Paperclip

Materials:

- · Paper clip
- Tissue paper or paper towel
- · Cup or bowl
- Water

Method:

- a) Fill the cup with water and gently place a piece of tissue paper on the surface.
- b) Carefully place a dry paperclip on the tissue.
- c) The tissue should sink. If it doesn't, give it a gentle push downward.

Tip: be sure that the cup and water are not soapy.



IF IT WORKS WITH A PAPERCI IP HOW ABOUT SOMETHING BIGGER, LIKE A FLOATING COUCH!

Reality:

THE SURFACE TENSION OF WATER IS ONLY 72 DYNES PER CENTIMETER!



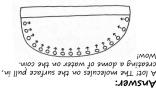
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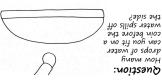
BALANCED FORCES.

Water in the middle:

UNBALANCED FORCES

Water on the surface:

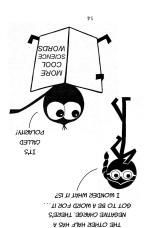




d allows us to fill cups above the brim, eighbors. This creates surface tension, than they like air, so the molecules on

or make a dome of water on a coin. which helps raindrops stay together an the surface bond more tightly to their n Water molecules like each other more

HOM DOES IL MOKKS



OF WATER IS POSITIVE AND THAT'S SO COOL THAT PART

"Noiznal aasinus

B	A	A	X
B	C		D
F	E	A	D
E	G	Ð	X