



## SCIENCE MOM

JENNYBALLIF.COM

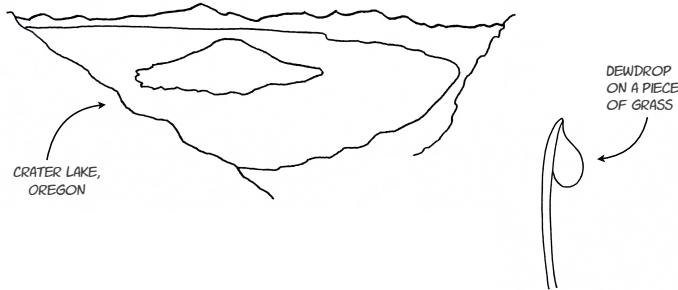
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## SCIENCE MOM'S Guide to WATER, Part 2



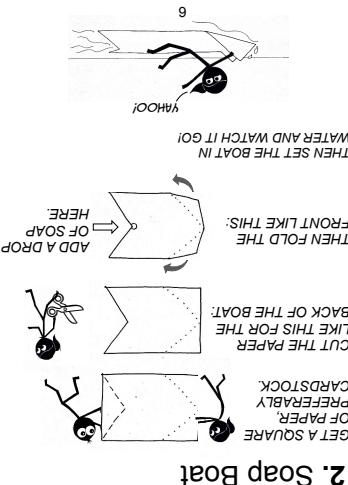
Think of a big lake versus a dewdrop. Pretty big difference in size, right?



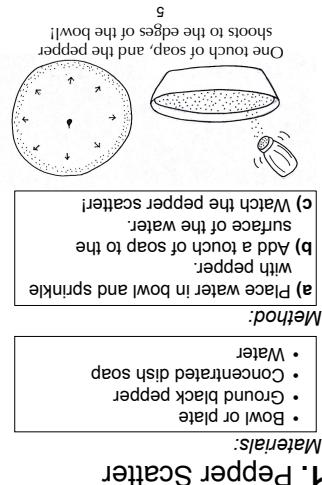
The dewdrop is SUPER small compared to the lake. But a water molecule (the smallest bit of water you can have) is MUCH smaller than a dewdrop. A single drop of water has more than 1,000,000,000,000,000,000 water molecules! That huge number with 21 zeros is called a sextillion, and it is a **TRILLION TIMES BIGGER** than one billion.

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## 2. Soap Boat



## 1. Pepper Scatter

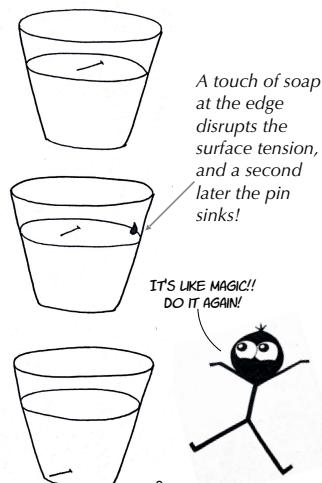
## 3. Floating Pin

## Materials:

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

## Method:

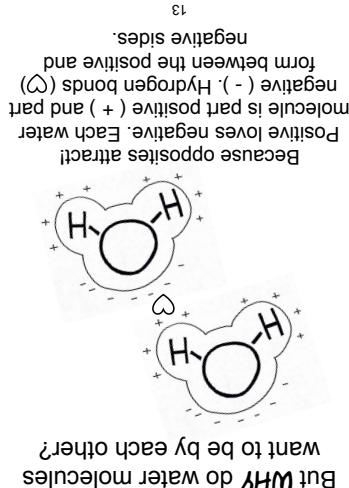
- Fill bowl or cup with water and carefully place pin on surface. Hint: tweezers may help. The pin must be flat with the surface of the water. It will sink if it comes in at an angle.
- Add a touch of soap.
- Watch the pin sink!



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THAT'S SO COOL THAT PART OF WATER IS POSITIVE AND THE OTHER HALF HAS A NEGATIVE CHARGE. THEREFORE, THEY ATTRACT EACH OTHER. I WOULD BE A WORLD FORCE GOT TO BE A WORLD FORCE.

HOW DOES IT WORK?  
SURFACE TENSION.

## 4. Floating Paperclip

## Materials:

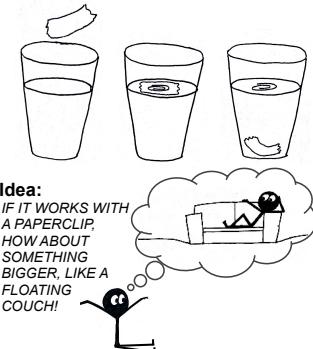
- Paper clip
- Tissue paper or paper towel
- Cup or bowl
- Water

## Method:

- Fill the cup with water and gently place a piece of tissue paper on the surface.
- Carefully place a dry paperclip on the tissue.
- 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.

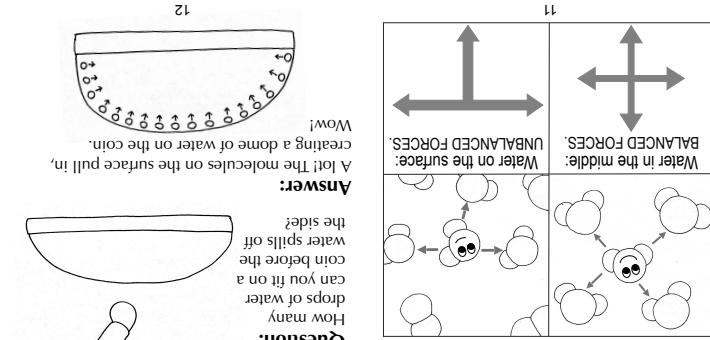
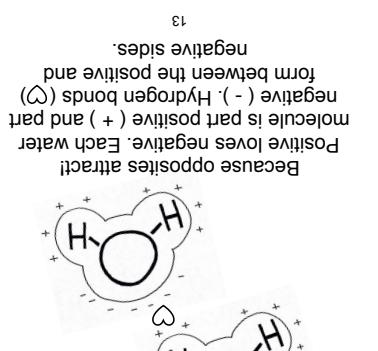
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Idea:  
IF IT WORKS WITH A PAPERCLIP,  
HOW ABOUT SOMETHING BIGGER, LIKE A FLOATING COUCH!

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

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Water molecules like air, so the molecules on the surface bond more tightly to their neighbors. This creates surface tension, which helps bond raindrops together and allows us to fill cups above the brim, make a dome of water on a coin, or make a dome of water on a coin.

B

A

A

X

B

C

C

D

F

E

E

D

E

G

G

X