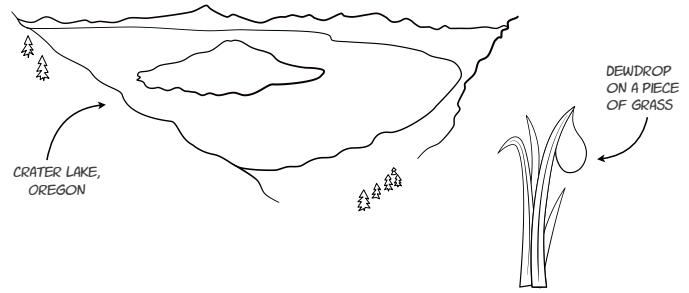
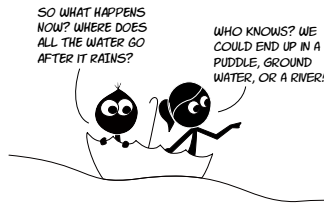


# SCIENCE MOM'S Guide to WATER, Part 2

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 1,000,000,000,000,000,000,000 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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1

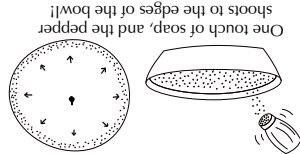
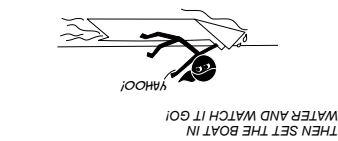
2

6

5

4

3



LET'S TALK ABOUT BIG NUMBERS

How many zeros

Name	How many zeros
Million	6 (1,000,000)
Billion	9 (1,000,000,000)
Trillion	12
Quadrillion	15
Quintillion	18
Sextillion	21
Septillion	24
Googol	100

GOOGOL? ISN'T THAT THE NAME OF AN INTERNET SEARCH ENGINE?

THAT'S WHAT I SAID

NO, YOU SAID GOOGOL

HUH?

JUST GOOGLE GOOGOL AND YOU'LL FIGURE IT OUT!

Assuming a rate of counting one number per second.

How long to count that high\*

11 days

31 years

31,704 years

31 million years

31 billion years

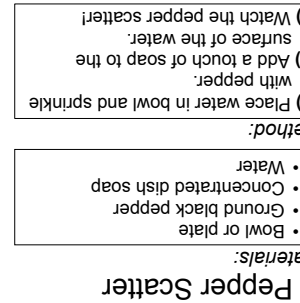
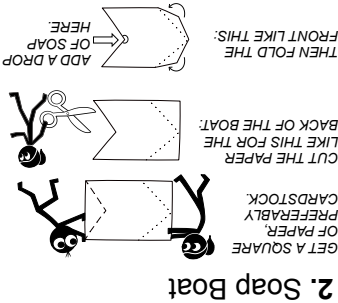
31 trillion years

317 trillion centuries

Don't be ridiculous!

A googol is bigger than the number of PARTICLES in the UNIVERSE.

GOOGOL IS BIGGER THAN THE NUMBER OF PARTICLES IN THE UNIVERSE.



2. Soap Boat

1. Pepper Scatter

## 3. Floating Pin

**Materials:**

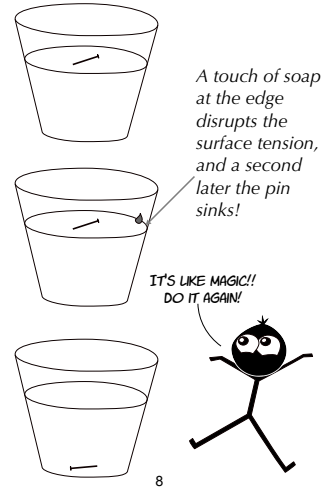
- A small pin or needle
- Bowl or cup
- Concentrated dish soap
- Water

**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!



## 4. Floating Paperclip

**Materials:**

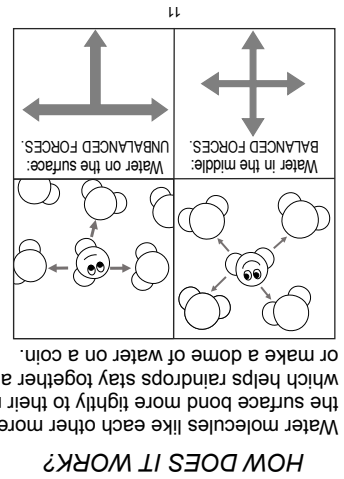
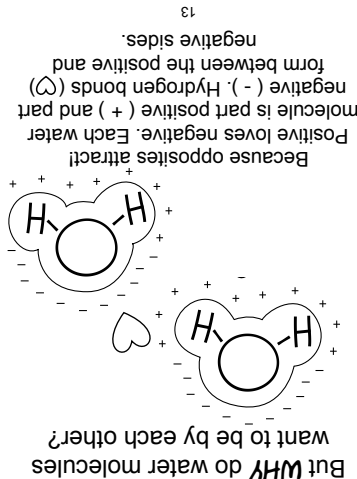
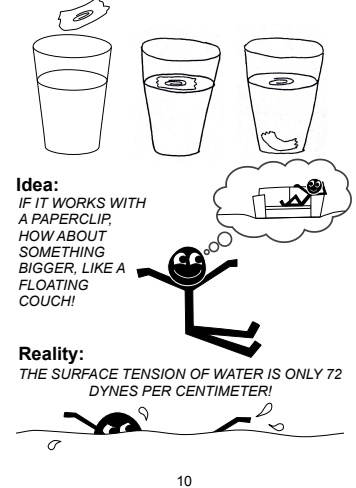
- Paper clip
- Tissue paper or paper towel
- Cup or bowl
- Water

**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.



B

A

A

X

B

C

C

D

F

E

E

D

E

G

G

X