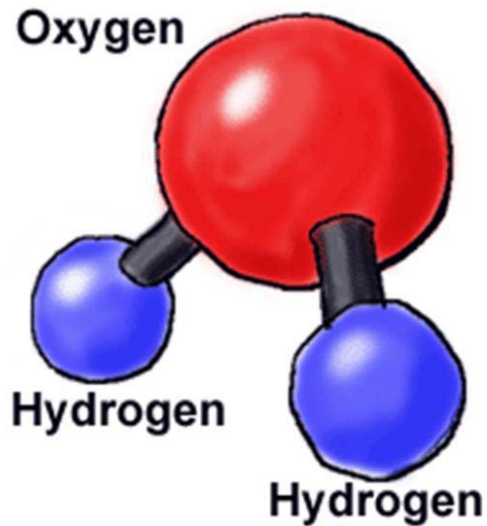


# SCIENTIFIC PROCESS



**Water Molecules & Surface Tension**

# Everything is made up of **MOLECULES.**



*Water* is made up of **molecules**.



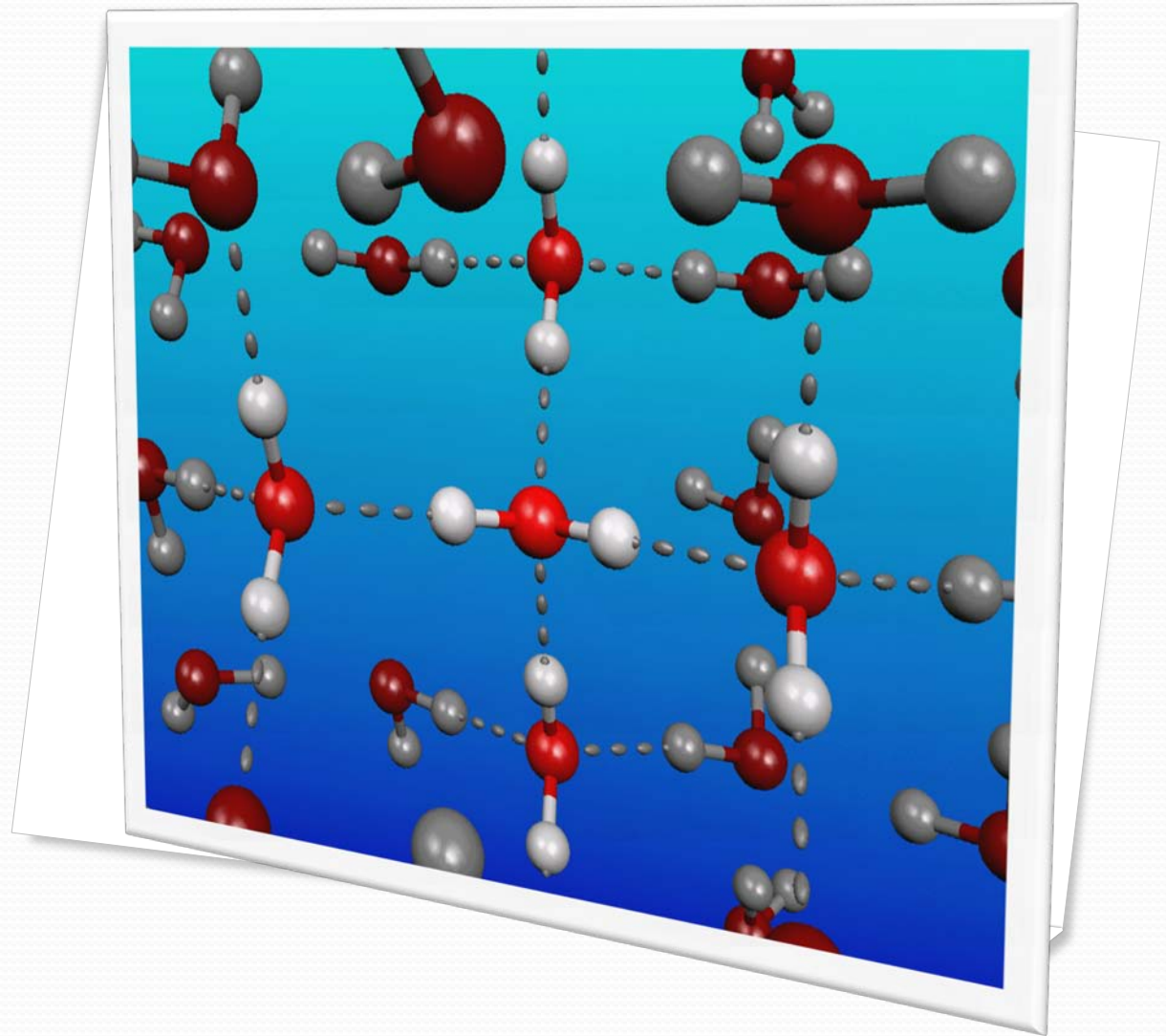


*The water's surface* is

**CONVEX.**

The molecules  
that make up  
water are  
constantly  
moving.

*They are  
pushing and  
bouncing all  
around.*



When matter is  
**heated**, the motion  
of its molecules  
**increases.**



The **hotter** the  $H_2O$ , the **faster** the water molecules move around.





**H<sub>2</sub>O** molecules cling together to keep from separating.



**This creates a bulge of H<sub>2</sub>O on top.**



The water's molecules are very attracted to each other. This causes **SURFACE TENSION.**





**Surface tension** can be described as the water's SKIN. This is how certain bugs walk on water. That is why water forms as a drop.



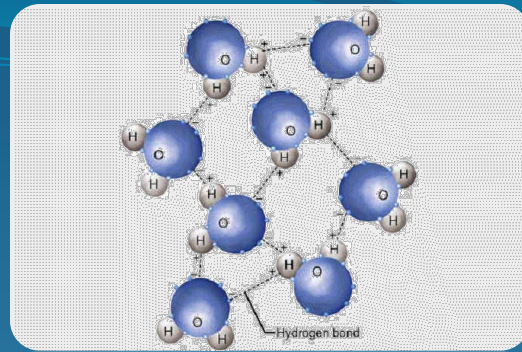
**When the *surface tension* has been stretched out as far as it can, the H<sub>2</sub>O breaks the skin and spills over.**





Soap weakens water molecules.





When water molecules are attracted to each other, it is called **COHESION**.



When water molecules are attracted to the container they are in, it is called **ADHESION**.

Soapy water molecules are not very cohesive.

Rubbing alcohol molecules are not very cohesive.



**NOT**  
cohesive

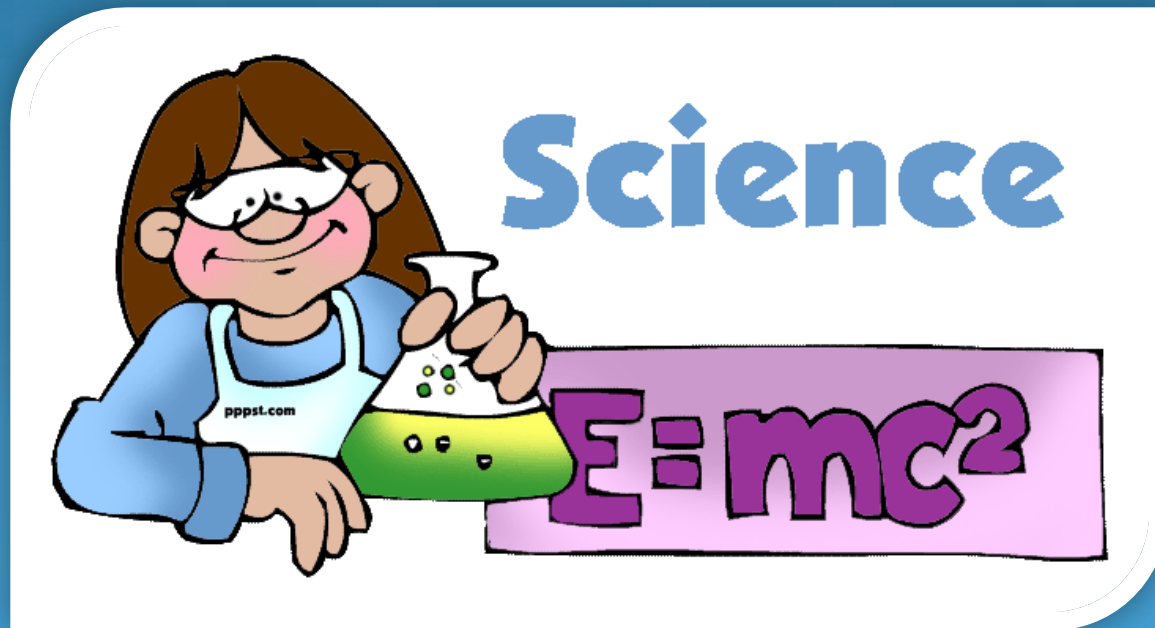


Water molecules are **VERY**  
cohesive.



The **surface tension**, or cohesive force, is weakened by soap at that spot. The molecules that are further away from this spot will pull these weaker molecules towards them because they are still strong and the pepper & toothpicks will go with them.

# THE SCIENTIFIC PROCESS



# Step 1: Scientific Process

## Procedures

What **steps** are involved in doing this experiment?

What will the **directions** be?



## Step 2: Scientific Process

# Materials

What **supplies** are needed to do this experiment?



## Step 3: Scientific Process

# Prediction

What do I **think** will happen in this experiment?

What will be my **hypothesis**?



## Step 4: Scientific Process

# Results

**How** did my experiment work?

**What** happened & **why**?

