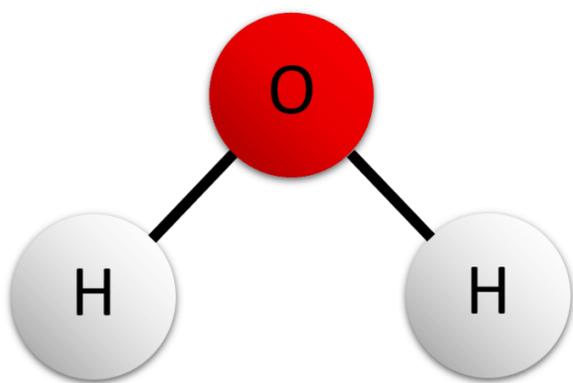


## "PLAY" WITH THE MOLECULES!

Hello Students! Today we will be talking about molecules. **Molecules** make up everything around you from your hands to your notebook and even your lunch!

A **molecule** is a group of two or more **atoms** joined together. **Atoms** are the building blocks that create the molecules. For example, a water molecule is made up of three atoms. Two of them are called hydrogen atoms and the third atom is called oxygen.

This is what a water molecule looks like really close-up!:



Soon you will be able to recreate this picture with the objects in your bag! If you look in your bag, you will see that you have a can of playdoh and dry spaghetti noodles. Follow these steps below to make your own water molecule!

**Step 1:** Take the can of playdoh and dry spaghetti noodles out of the bag.

**Step 2:** Take the playdoh out of the can.

**Step 3:** Form 3 small circles.

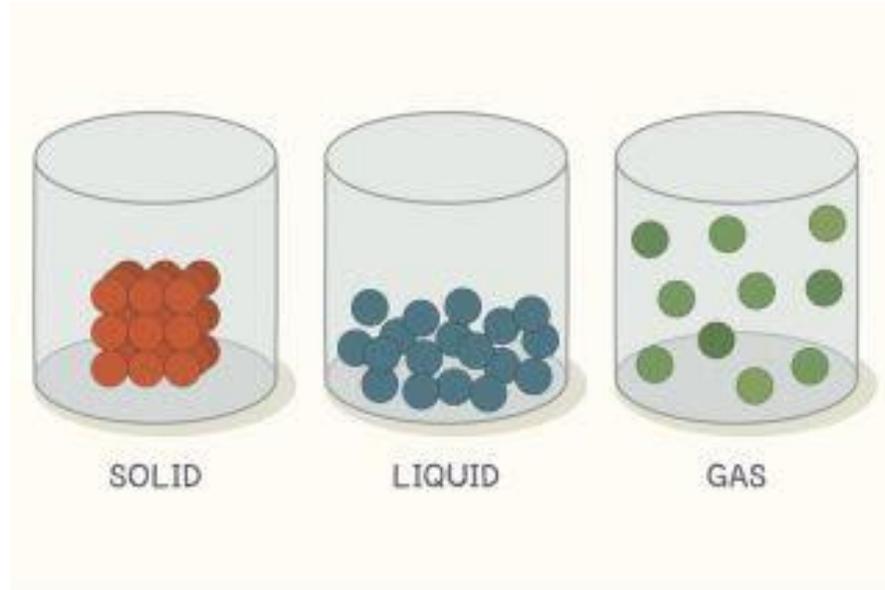
**Step 4:** Take out 2 of the spaghetti noodles.

**Step 5:** Put 2 of the playdoh circles at the ends of the spaghetti and 1 at the top to connect them.

**Step 6:** Enjoy your new water molecule!

These small molecules group and make many different types of shapes. These shapes are called the states of matter. The three that we will be talking about today are **solids**, **liquids**, and **gases**. **Solids** like to pack in tight with other molecules and take their own shape. **Liquids** can fit in many different types of containers and are more spread out. Last, **gases** are the most spread out and take up all of the space in containers.

This picture below shows what each state of matter looks like in a container!:



Molecules can change between these states of matter to make a completely new object. But this does not mean that they can't change back to what they were in the beginning. For example, water is in a liquid state but it can also turn into solid to make ice. Inside of that ice is still water and can be changed back. So, we will also be demonstrating the process of changing between the states of matter. Follow these steps below to try it!

**Step 1:** Take the paper template out of your bag and grab some more playdoh.

**Step 2:** Continue to make small circles with the playdoh, but this time make them under the "gas" side.

**Step 3:** Place the small circles very spread out for the others to show the picture of gas.

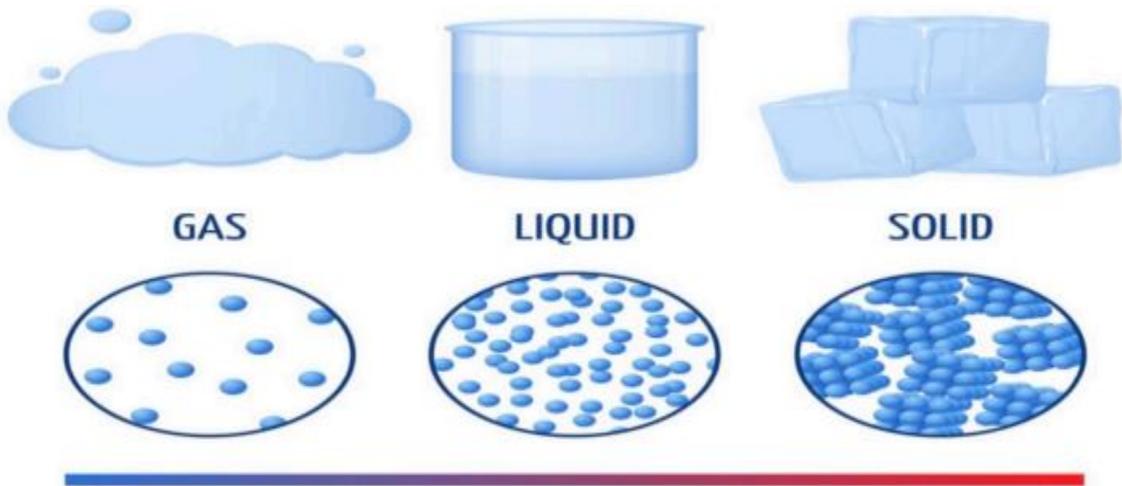
**Step 4:** Mash them all up and start again under the "liquid" side.

**Step 5:** Place the small circles' closer together to show the picture of liquids.

**Step 6:** Mash them up again and start under the "solid" side.

**Step 7:** Place the small circles very close together to show the picture of solids.

**Step 8:** Do it all over again!



In the boxes below you will go around your house and find example of each kind of matter. You will draw a picture in the box and write what it is in the little box under the big box.

Gas

Liquid

Solid

Great job! Today we talked about molecules and how they can change states to become something else! I hope you enjoyed!