

Heat and Matter

Grade 3 Science

Student Name: _____

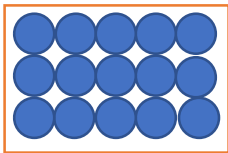
Date: _____

Activity 1: Use the words in the box to fill in the blanks. Some words will be used more than once. One word will not be used at all!

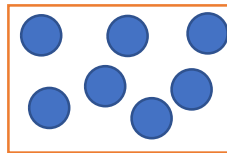
solid	liquid	gas
properties	matter	air

1. Everything in the world is made up of me! I am _____.
2. We are the three common forms of matter on Earth. We are _____, _____, and _____.
3. We are characteristics that help describe matter. We are _____.
4. I flow to take the shape of my container. My molecules wiggle and move around. What state of matter am I? _____
5. I have a definite size and shape. My molecules wiggle just a little and are packed closely together. What state of matter am I? _____
6. I do not have a definite shape or size. My molecules wiggle and move around a lot. They don't like to be close to each other, so they spread out. What state of matter am I?

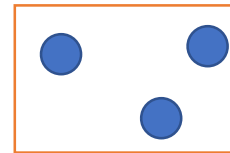
7. These pictures show how our particles are arranged. Can you tell what state of matter we are?



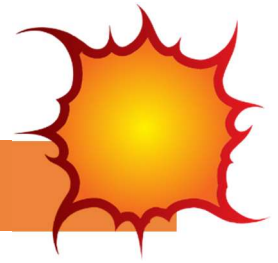
I am a _____



I am a _____



I am a _____



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Activity 2: We saw in the video how iron and silver can change from solid to liquid when heat is added, and then turn back to a solid when heat is removed. Now you will investigate how heat changes matter!

Follow these steps as your teacher directs you.

1. Observe the butter in the cup. Is it a solid, liquid, or gas? How do you know? Fill in your answers in the first row of the table below.
2. Place the cup of butter into the larger cup of hot water. Gently stir the butter with the wooden stick for a minute or two. Is the butter now a solid, liquid, or gas? How do you know? Fill in your answers in the second row of the table.
3. Take your cup of butter out of the hot water and put it into the larger cup of ice-cold water. Leave it there for a minute or two. Is the butter now a solid, liquid, or gas? How do you know? Fill in your answers in the last row of the table.

	Solid, Liquid, or Gas?	How do you know?
Butter at Room Temperature		
Butter Placed in Hot Water		
Butter Placed in Ice-cold Water		

