

Solid or Liquid?

Section: Properties of Matter; Topic: States of Matter

Name: _____

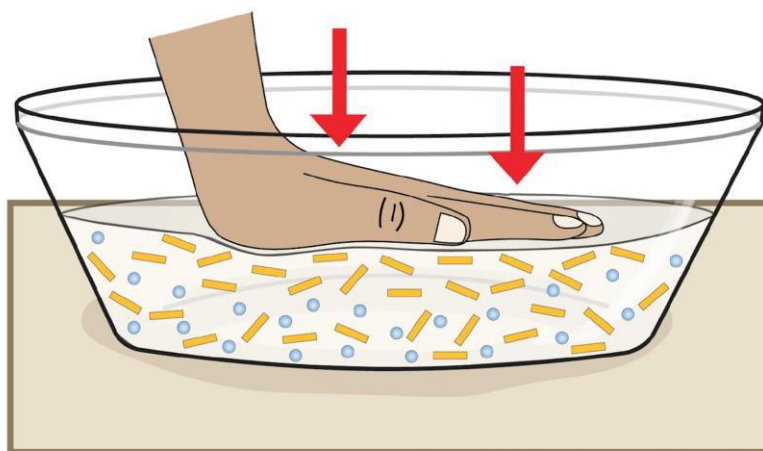
Date: _____

Inquiry Question

Write down what you'll be learning today! What do you want to understand?

Procedure

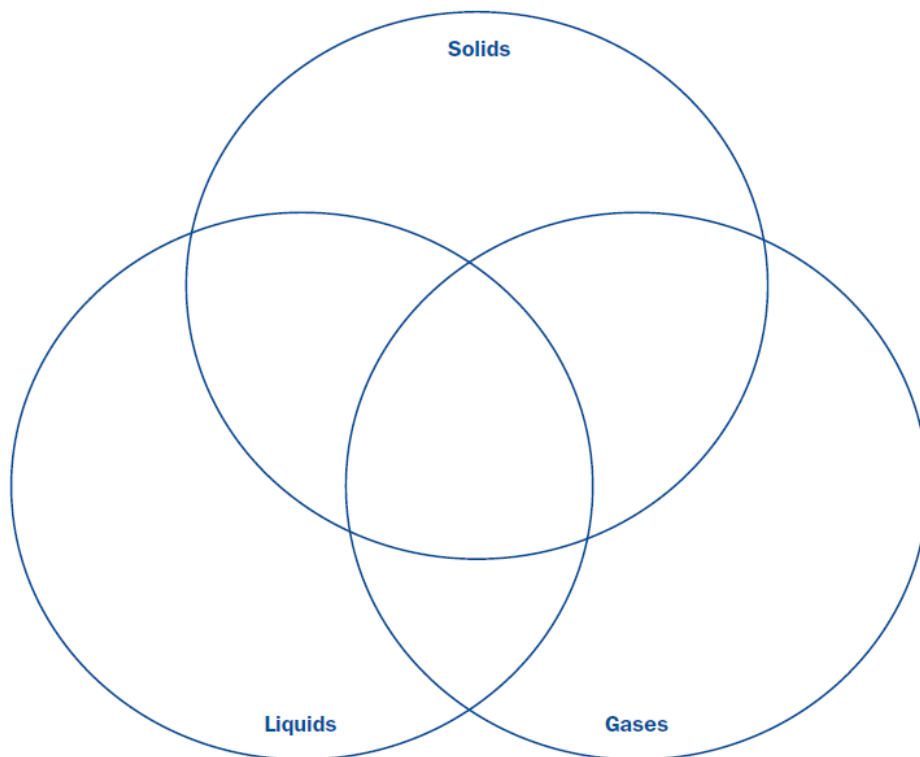
1. Mix cornstarch and water in a cake pan, using about a quarter of the box of cornstarch at a time, until you have a uniform consistency. If the mixture causes significant splashing, add more corn starch. If the mixture is grainy, add more water.
Note: It may be easier to mix the cornstarch and water and get a uniform consistency if you use your hands. Gloves can be worn to protect your hands and minimize the mess.
2. Allow students to test the properties of the fluid.
 - a. Students can hit the mixture and observe its response. It should not splash.
 - b. Students can also scoop up some of the mixture in their hands and observe what occurs when they open their hands or when they apply pressure.



Observations, Data Collection & Analysis

Write down your observations below.

1. Compare the properties of solids, liquids, and gases using the diagram below.



2. What is the state of matter of cornstarch? Of the water? In what state of matter is the cornstarch mixture?

3. What occurs when you smack the mixture? What about when you apply less force and run your fingers or a spoon slowly through it?

4. Do you think the mixture is a solid, liquid, or gas? Why?

5. How can the viscosity of a Newtonian fluid change? Provide an example.

6. Humans have a non-Newtonian fluid that runs throughout their bodies. What do you think it is and why?
