

Name: \_\_\_\_\_

Section: \_\_\_\_\_

## Discovering the Definition of Matter - Solid, Liquid, Gas

### Question:

What two characteristics do all types of matter have?

### Materials needed for each group:

- water in a small container
- larger empty container
- a solid object
- a balloon
- observation chart
- triple beam balance

### Procedures:

1. Examine the solid object and complete the "solid" column on your observation chart.
2. Examine the water, NOT THE CONTAINER. Before you begin writing your observations, pour the water into the empty container. Watch what happens to the shape of the water and then complete the "liquid" column on your observation chart.
3. Examine your breath, a gas. Blow air (gas), out of your body and complete the "gas" column on your observation sheet except for the question, "Does it have mass?" For this question:
  - a) Get the mass of an empty balloon using the triple beam balance. Record the mass in the observation chart.
  - b) Blow up the empty balloon. Be sure that the person who blows up the balloon is the same person who ties the knot.
  - c) Get the mass of the blown up balloon using the triple beam balance. Record this mass in the observation chart.
  - d) Subtract the mass of the empty balloon from the mass of the balloon full of gas. Record this number in the observation chart.
4. Examine your observation chart and try to find two things that are the same for the three types of matter.

## Discovering the Definition of Matter - Solid, Liquid, Gas

	Solid	Liquid	Gas
Does it sit by itself?			
Does it have a shape of its own?			
Can you see it?			
Can you feel it?			
Can a solid pass through it easily?			
Does it flow?			
Can you pour it?			
Does it feel wet?			
Does it take up space?			
Does it have mass?			Balloon w/gas → Empty Balloon → - _____