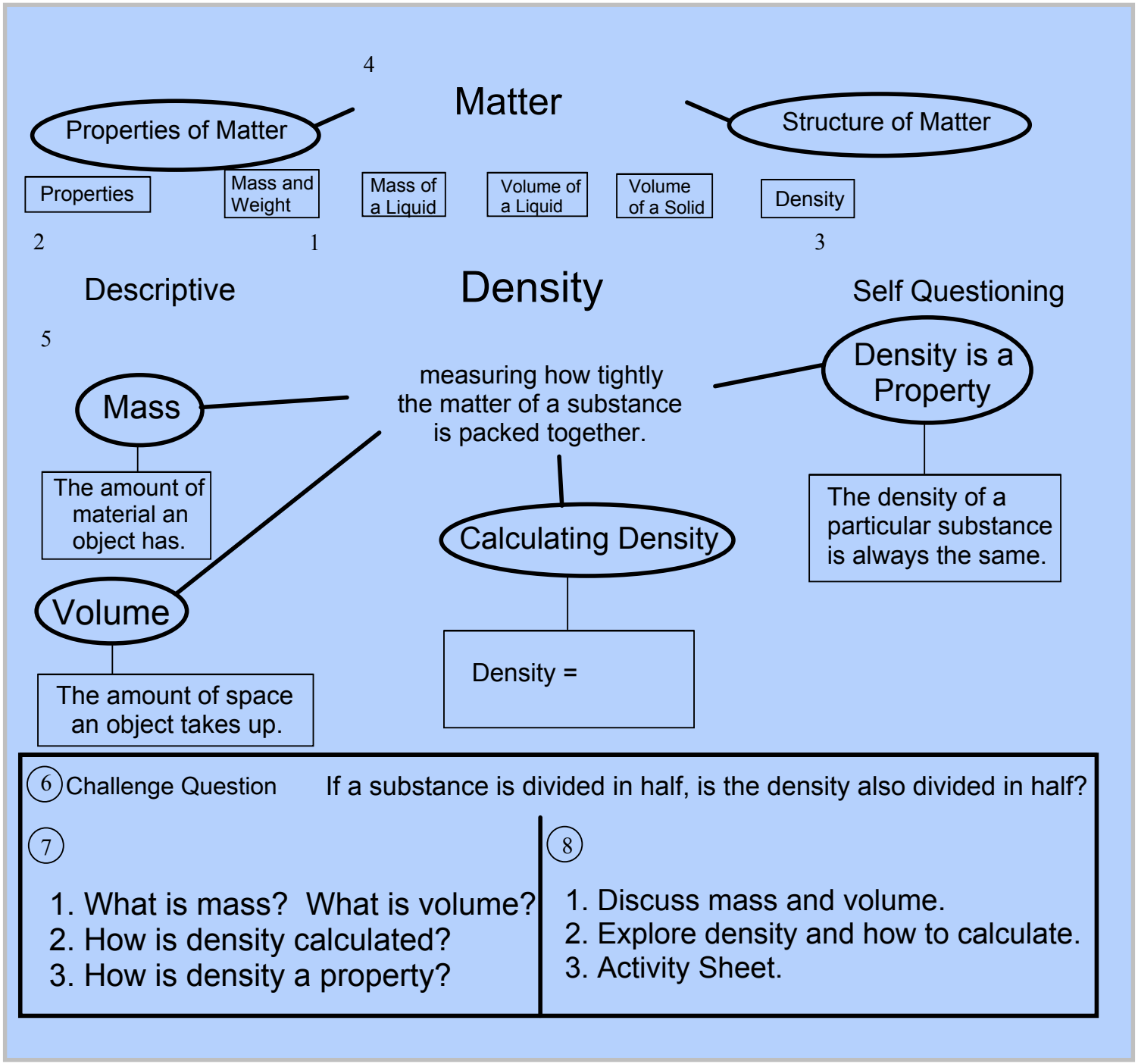

Title: Oct 3-8:21 AM (1 of 6)

Density

Name: _____ Date: _____

1. What is density?

_____

_____

_____

2. Which would have more matter, a 1cm cube of lead or a 1cm cube of rubber?

_____

_____

_____

3. Suppose you have a metal bar. The mass of the bar is 57.9 g and its volume is 3 cm^3. What is the density of the bar?

_____

_____

_____

4. If you cut the metal bar in half, what would the density of each part be?

_____

_____

_____

5. If you put a piece of cork in a container of water, would it sink or float? Why?

_____

_____

_____

To Sink or To Float

Name: _____ Date: _____

Purpose: To find the density of water and oil.

Procedure:

1. Use the table to record your findings.

Measurements	Cylinder with water	Cylinder with oil
a) Mass of empty cylinder		
b)Mass of cylinder with liquid		
c) Mass of liquid (b-a)		
d) Volume of the liquid		
e)Density (c÷d)		

2. Use two identical graduated cylinders. Use a balance to find the mass of each graduated cylinder. Record you answer.
3. Fill one graduated cylinder with waster and the other with oil. Fill each one to the same level. You have equal volumes of water and oil. Record this volume on your table.
4. Find the mass of the water and cylinder.
5. Subtract the mass of the graduated cylinder from the mass of the cylinder and the water.
6. Find the mass of the oil and cylinder.
7. Subtract the mass of the graduated cylinder from the mass of the cylinder and the oil.
8. Use the equation for density to find the densities of water and oil.

Conclusions:

1. Which substance has a greater density?

_____

_____

_____

2. Liquids with less density will float on liquids with greater density. If you poured the water and cooking oil together, which would float to the top? Why?

_____

_____

_____

3. Corn syrup has a density of 1.3 g/cm^3. If you pour corn syrup into a cylinder of cooking oil and water, what would happen?

_____

_____

_____