Mixtures and Physical Properties Guided Notes Assignment **Name _____**

1. What is a Mixture?
    a. A mixture is _____,
    but NOT _____.

    Examples:

2. Complete the following vocabulary chart.

Word	Definition	Example or Notes
Heterogenous Mixture		
Suspension		
Colloid		
Homogenous Mixture		
Solution		

3. Task 1: **Picture Scavenger Hunt**
    a. Find a picture of **each** type of mixture.
    b. You cannot use something we have discussed in class.
    c. Upload a picture.
    d. Describe the picture and why it is homogenous or heterogenous

Heterogenous Picture:	Homogenous Picture:
Description:	Description:
Explanation:	Explanation:

4. Complete a Second Vocabulary Chart

Word	Definition	Example or Notes
Physical Property		
Chemical Property		

5. **Task 2A: Temperature is a physical property.**

Thermostat Picture:
Explain why temperature is a physical property.

6. **Task 2B: Explain the difference between Mass and Weight.**

   Hint: Look at page 121 in your book or take a look at this link.

7. **Task 2C: How do you calculate the volume of matter?**

Volume of a Solid	Volume of a Liquid
• How do you calculate the volume of an object with regular sides using a ruler? • Volume = _____ • Is there another formula you could use for volume? What is the formula and what does it calculate for?	• Write a procedure for displacement. • Here is a link. Remember to tell me how you actually get the volume in number form.

8. **Task 2D: What is Density and how do you calculate it?**
   - What is density?
   - What is the formula for density?

   1. If 96 grams of gold has a volume of 5 cm^3, what is the density of the gold?
   2. On object is said to have a mass of 120 g. If the object had a length of 2.5 cm, a height of 3 cm, and width of 5 cm. What is the density of this object?
   3. Can we determine the identity of the material for the object in question #2 based on its density? Why or why not?

9. **Task 2E: Which objects sink or float?** THIS COULD BE ONE PICTURE WITH TWO ITEMS!!

Picture of Object Sinking in Water?	Picture of Object Floating in Water?
Description of Picture	Description of Picture

a. Find the density of your two objects (or something similar).

b. In the explanation on the other slide, it says narrow down the density of the object by determining if it will sink or float in liquids with known densities.

Explain what this statement means and how it might work.

- *You might want to look up the density of the two liquids to help you explain.*
- *If one liquid is water and one liquid is olive oil, do these substances have the same density?*
- *What does it tell you if the object floats on water, but sinks in olive oil?*