Assignment:\_\_\_\_\_

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

**Density Notes**

**What is density?**

* Density is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of how much \_\_\_\_\_\_\_\_\_\_\_\_ there is in a certain amount of \_\_\_\_\_\_\_\_\_\_\_.

*Draw an example of two squares with the same number of particles, but one is more dense than the other (label which is more dense).*

**Density** = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ OR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_÷\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Units for density**: \_\_\_\_\_\_\_\_

Example Problems:



**Deeper Understanding…**

* What happens to density when volume increases? What happens when volume decreases? (assuming mass stays the same)
* What happens to density when mass increases? What happens when mass decreases? (assuming volume stays the same)

**Liquid Layers**

* If you pour together liquids that don’t mix and have different densities, they will form liquid layers
* The liquid with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ density will be on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The liquid with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ density will be on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Draw out the second example of liquid layers on your paper below:

**Density and Water Video Questions:**

1. What is the density of water?
2. If something sinks, what does that mean about its density?
3. If something floats, what does that mean about its density?

**Archimedes Principle**

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + The effort needed to keep something afloat will be the same as the effort exerted to spread out the liquid
* So in order to keep something afloat….
  + You want to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in order to help keep it afloat