Density Introductions Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a) Draw the tank that you see at the front of the room in the space provided below:

*b) Describe what you think is happening and WHY?*

*Density formula*

Density = \_\_\_\_\_\_\_\_\_\_

Density equals the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ per unit of \_\_\_\_\_\_\_\_\_\_\_\_\_.

* Mass of can of Coke = \_\_\_\_\_\_\_\_\_\_ g Mass of can of Diet Coke = \_\_\_\_\_\_\_\_\_\_\_
* The regular Coke has more \_\_\_\_\_\_\_\_\_\_\_ for the same volume, so the density of the regular coke is \_\_\_\_\_\_\_\_\_\_\_\_ higher

*Density describes how \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the particles are in a material.*

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*Looking at the diagram to the left describe the spacing of the particles in the solid block, the liquid, and in the gas.*

***Solid: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Liquid: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

***Gas: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

**Temperature application to density**

Most substances are more dense in their \_\_\_\_\_\_\_\_\_ form than in their liquid form.

* Knowing this, how do you think temperature and density are related?
* As temperature increases density \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* What is the one exception to this rule? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Density of Water = 1.00 g / cm

Fluids that do not mix will form layers based on density!

* Fluids with a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ density 'float' on top of fluids with a higher density.
* If a fluid has a density less than water (1.00g/cm ) it will float