CHEMISTRY

CHAPTER 7: THE KINETIC MOLECULAR THEORY

7.2: FLUIDS AND DENSITY

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- A _____ is any form of matter that can flow.
  - Liquids and gases are fluids since they do not have a _____.
  - Solids are _____ fluids.

Lava, water, and syrup are examples of fluids.

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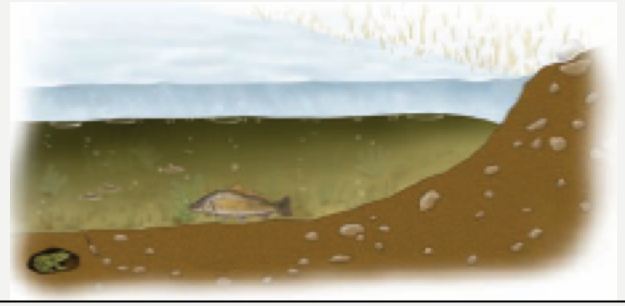
SOLID, LIQUID, AND GAS DENSITY

- _____ is the amount of _____ for each unit of _____.
  - Density describes how closely packed together the particles are in a material.

Most substances are denser in their solid form than in their liquid form, but water is an exception.



Describe the spacing of the particles in the solid block, liquid water, and gaseous air.

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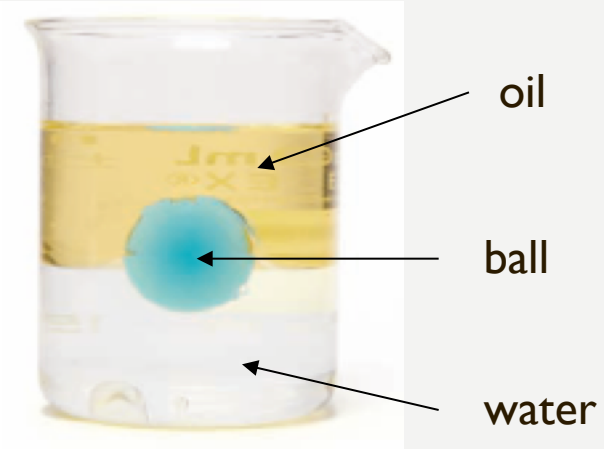
LAYERS OF FLUIDS

- Fluids that do not mix, _____ themselves according to their density.
- _____ dense fluids "float" on top of _____ dense fluids.

Can you list the objects, in this beaker, from most dense to least dense?

- _____
- _____
- _____



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MEASURING DENSITY

- Both _____ and _____ are required when calculating density.
- Mass:
  - Mass can be measured using a _____ or balance.

balance

- Volume:
  - For objects that are block shaped, volume can be calculated by measuring the block and then using the equation:

  - For objects with irregular shape, _____ is the method used to find the volume.

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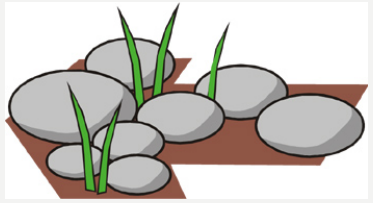
CALCULATING DENSITY

Density can be calculated using the following formula:

Answer the following:

1. What is the density of a 4 cm^3 rock that has a mass of 24 g?



2. A 5 ml sample of motor oil has a mass of 4.5 g. What is the density of the motor oil?

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