Science Review

1. What is the definition of Mass?
2. What is the definition of volume?
3. Describe the relationship between Mass, Volume and Density.
4. Explain the difference between Mass and Weight.
5. True or False: The Density of a substance can predict whether it will sink or float.
6. Explain how temperature can affect density.
7. Refer to Table 1: Densities of Common Substances on page 262 of your text book.

Suppose alcohol, glycerol, water, gasoline are all placed in a tall cylinder.

Draw and label a diagram to show the order you would expect to find them.

1. Refer to Table 1: Densities of Common Substances on page 262 of your textbook .

A student performed an investigation to determine the density and identity of a liquid, and obtained these measurements:

 Mass of graduated cylinder: 120g

 mass of cylinder and liquid: 1120g

 volume of liquid: 794 cm3

a) Calculate the density of the liquid in g/cm3

b) From the data in Table 1 on page 122, what is the liquid?

c) What are the main sources of error in making measurements of this type of investigation?

1. Refer to Table 1: Densities of Common Substances on page 262 of your text book.

Give an example of a gas more dense than air.

1. Calculate the density of a block of wood that has a mass of 500g and a volume of 757 cm3? Can you identify what type of wood it is?
2. Refer to Table 1: Densities of Common Substances on page 262 of your text book.

If a bag of salt has a volume of 231 cm3, how much would it weigh?

1. Refer to Table 1: Densities of Common Substances on page 262 of your text book. If we lived on a planet whose atmosphere is made up of Helium, could we still make birthday balloons that float?
2. Which has more mass a kilogram of marbles or 1000g of styrofoam?
3. What is the density of a substance that as a mass of 400g and a volume of 275ml?



1. What is the image on the right called? List two things you need to remember when reading it?
2. Explain using the words density and temperature how the substance in a lava lamp is able to move.
3. Convert 4,765 g to kg.
4. Convert 8.96 kg to grams.
5. How many millilitres in 4.3 litres?
6. How many ml in 23 cm3?
7. A brass **cube** that has one side measuring 43cm. It has a mass of 6.7kg. Calculate the density. (you must first convert to the proper units).
8. A rock is placed in a cylinder containing 23ml of water. The cylinder of water has a mass of 85g. What is the density of the rock if the water level rises to 42ml and the new total weight is 104g?