**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PERIOD: \_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_**

**DENSITY STUDY GUIDE**

Compare and contrast mass and weight.

Explain volume and how is it measured?

What information is needed to determine a substance’s density? Explain the relationship between the information.

Describe how you would determine the density of a rectangular object.

Explain why some objects float in water and some sink.

Which one is denser tap water from the facet or salt water from the ocean? Explain your answer.

Explain why a hot air balloon rises.

If ice floats in water, what happens to the density of water as it freezes? Draw a particle diagram to illustrate the difference between solid, liquid, and gas water.

If you had two unknown liquids, how could you tell which one is denser?

If the volume of an object is kept constant, what happens to its density if its mass is increased?

If the mass of an object is kept constant, what happens to its density if its volume is decreased?

If the volume of an object is kept constant, what happens to its density if its mass is decreased?

If the mass of an object is kept constant, what happens to its density if its volume is increases?

On a density graph, what does the slope of a line represents?

On a density graph that has three lines plotted on it, which line would represent the object with the greatest density? Explain your answer.

A rectangular block of copper metal weighs 1896 g. The dimensions of the block are 8.4 cm by 5.5 cm by 4.6 cm. From this data, what is the density of copper?

28.5 g of iron shot is added to a graduated cylinder containing 45.50 mL of water. The water level rises to the 49.10 mL mark, from this information, calculate the density of iron.

A flask that weighs 345.8 g is filled with 225 mL of carbon tetrachloride. The weight of the flask and carbon tetrachloride is found to be 703.55 g. From this information, calculate the density of carbon tetrachloride.

What volume of silver metal will have a mass of exactly 2500.0 g if the density of silver is 10.5 g/cm3?

Find the mass of 250.0 mL of benzene id the density of benzene is 0.8765 g/mL.

Explain the meaning of 50cm3 is equal to 50mL

If the sides of an object cannot be measured because of its odd and uneven shape, how could you determine its volume?

List the five steps for water displacement.