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

Density Guided Notes

Coke vs Diet Coke Prediction:

Results:

Density Formula:

What can you use to measure mass?

What are three ways to measure volume:

 1.

 2.

 3.

What is the density of water?

How can you predict if something will float or sink in water?

Do all gases have the same density?

Give an example of a gas that will float on normal air.

Give an example of a gas that will sink in normal air.

How does temperature affect density?

Practice Problems

1. A metal ball has a mass of 25 g and a volume of 6 cm3. What is its density?

2. Water has a density of 1 g/mL. What is the mass of the water if it fills a 10 mL container?

3. A certain gas expands to fill a 3 L container. Its mass is measured to be 0.6 kg. What is its density?

4. A solid is 5 cm tall, 3 cm wide and 2 cm thick. It has a mass of 129 g. What is its density?

5. What is the volume of a marble that has a mass of 3 g and a density of 2.7 g/mL?

6. A graduated cylinder is filled to an initial volume of 12.7 mL. A rock is dropped into the graduated cylinder. The final volume of the graduated cylinder is 18.2 mL. What is the rock’s volume in mL? What is the name of this method of finding volume?

7. A perfect cube has a width of 2 cm. What is the cube’s volume? Show your work!

8. A box that is 5 cm long, 4 cm wide and 6 cm high would have what volume? Show your work!

9. Will an object with a density of 1.05 g/ml sink or float in water? Explain.

10. Will an object with a density of 0.97 g/ml float or sink in water? Explain.