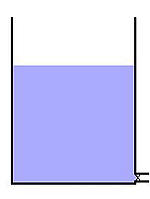
**General Physical Science – Testing Density**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

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| I can… |
| *Predict densities.*  *Observe densities of varying materials.*  *Explain the relationship between density, mass, and volume.* |

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| Vocabulary term |
| ***Mass*** |
| ***Volume*** |

From the video, record the definitions for the 2 vocabulary words in the boxes to the right.

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| 1. We are going to look at different materials’ behavior in fluid. There are two blocks. **Predict** what materials you think they are made of. Write it to the right. |  |
| 1. We will drop the larger block in the fluid. **Predict** what you think will happen. Write it to the right. Compare your prediction with a neighbor. |  |
| 1. **WHY** do you think this will happen? Write your explanation to the right. |  |
| 1. **Observe** what happened. Record your observations to the right.  http://www.webstaurantstore.com/images/products/main/5844/20176/bally-block-maple-wood-cutting-board-16-x-24-x-1-3-4.jpg |  |
| 1. We will drop the other block into the fluid. **Predict** what you think will happen. Record it to the right. Share your prediction with a neighbor. |  |
| 1. **Observe** what happened. Record your observations to the right.   https://img0.etsystatic.com/004/0/6999339/il_214x170.377894780_cxlz.jpg |  |
| 1. Let’s **explain** what happened. Pair with a partner and try to write an explanation for what you observed. (Hint: use words like mass, volume, or density.) |  |
| 1. Let’s **check** our explanations. Rewrite our class explanation to the right. |  |
| 1. An object’s **density** affects its behavior in a fluid. Write the fluid and density of the fluid we are working with today to the right. http://water.me.vccs.edu/courses/ENV110/clipart/disinf1.jpg |  |
| 1. Write a hypothesis (if… then statement) to further **experiment** with materials and their densities. | If…  Then… |
| 1. Density can be solved using a **mathematical** relationship between mass and density. Record the relationship. |  |
| 1. Find the densities of the blocks we used today. | https://img0.etsystatic.com/004/0/6999339/il_214x170.377894780_cxlz.jpghttp://www.webstaurantstore.com/images/products/main/5844/20176/bally-block-maple-wood-cutting-board-16-x-24-x-1-3-4.jpgMass: 100 g  Volume: 200 mL  Mass: 100 g Volume: 37 mL |
| 1. A mystery block has a mass of 100g and a volume of 100 mL. **Calculate** the density. Will it sink or float? Predict with a partner. |  |

Try it on your own on the next page.

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| *Try on Your Own* | |
| *Try the following problems on your own. Show your work and get an initial from your teacher before moving on!* | |
| 1. Block A has a density of 0.92 g/mL and Block B has a density of 8.7 g/mL. Which one will sink in water? WHY? | *Teacher Initial* |
|  |
| 1. http://images.clipartpanda.com/styrofoam-cup-clipart-108679166.jpgA brick of Styrofoam has a volume of 10 mL and a mass of 0.2 g. What is the density? Will it sink or float in water? |  |
| 1. http://fitnessandhealthadvisor.com/wp-content/uploads/2013/07/extravirgin-300x300.pngOlive oil has a density of 0.92 g/mL. Describe what will happen if you pour oil over water and WHY. |  |
| 1. A mystery brick has a volume of 50 mL and a mass of 600 g. What is the density? Will it sink or float in water? |  |
| 1. You drop two blocks in water. Block A has a volume of 50 mL and a mass of 600 g. Block B has a volume of 50 mL and a mass of 100 g. Calculate their densities. Sketch and label what the set up would look like. |  |