**Names:**

**Density Lab**

**Problem/Question**: Why do some substances float on top water while other substances sink?

**Hypothesis**:

**Materials**:

- Water

- Triple beam balance

- Graduated cylinder

- Metal bar

- Gluestick

- Cork

- Hexagon

- Domino

- Quarter

**Procedure**:

1. Find the mass of 4 different objects using the triple beam balance. Write the data on the data table.
2. Find the volume of 4 different objects in step 1 using the graduated cylinder. Write the data on the data table.
3. Calculate the density of the 4 different objects using data from the table. Write the density on the data table.

**Data:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Material | Mass | Volume | Density | Float/Sink |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Conclusion Questions**:

1. Based on your data, estimate the density of water. Explain how you came up with that estimate.
2. What made an object have a higher density than others? (Hint: Look at the relationship between mass and volume)
3. What made an object have a lower density than others? (Hint: Look at the relationship between mass and volume)
4. Which object(s) was denser than the water? Which object(s) was less dense than the water?
5. Why did some objects float while others sink?