

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_



## Density Lab: Aluminum Foil Boat and Pennies

### **Introduction**

This is a simple lab to invoke thought processes. Each student will be given aluminum foil and asked to design/build a boat that will hold as many pennies as possible without sinking.

### **Materials**

1. Pennies
2. 3-5 inch x 5 inch squares of aluminum foil
3. 1 - ruler

### **Procedure**

1. Obtain 3 pieces of aluminum foil.
2. Build your 3 different boats. Describe your boat designs under the data section.
3. Make a hypothesis as to how many pennies the boat will hold in the data section Record it under the data section.
4. Place boat in water container 1 at a time. Add one penny to the boat at a time until the boat starts to sink. Record your number of pennies (minus the one that sank it) in the data section. Be sure to dry all pennies between trials!
5. Clean up any spilled water and your work area. Dry off the pennies and return them to the penny bucket.
6. Answer the questions in the data and conclusions sections.

**Data Collection/Observations:** Use the attached graphic organizer to collect your data.

### **Analysis**

1. The quantity of pennies that your boat carried before it sunk is the \_\_\_\_\_ variable because it is the variable or result being measured.
2. The design of your boat would be your \_\_\_\_\_ variable because it is the main variable being tested or changed.

**Hypothesis:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_