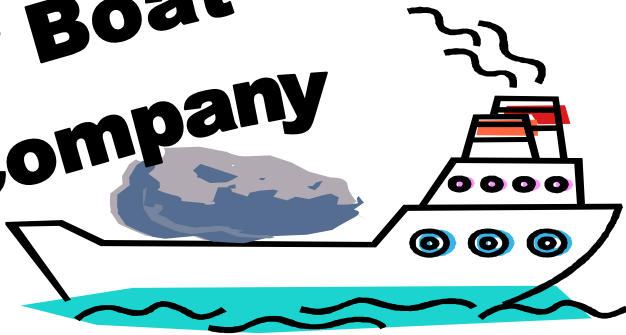


# Boulder Boat Design Company



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

You are being contracted to do some work for the Boulder Boat Design Company. The BBDC specializes in the designing of boats that can transport large amounts of mass across rivers and lakes. You have been hired to construct and test a few of the designs that the BBDC has engineered. You will build the boats and test how well each design is able to hold massive rocks without sinking.

**Problem:** \_\_\_\_\_

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

**Variable:** \_\_\_\_\_

**Controls:** \_\_\_\_\_

**List of Materials:** \_\_\_\_\_

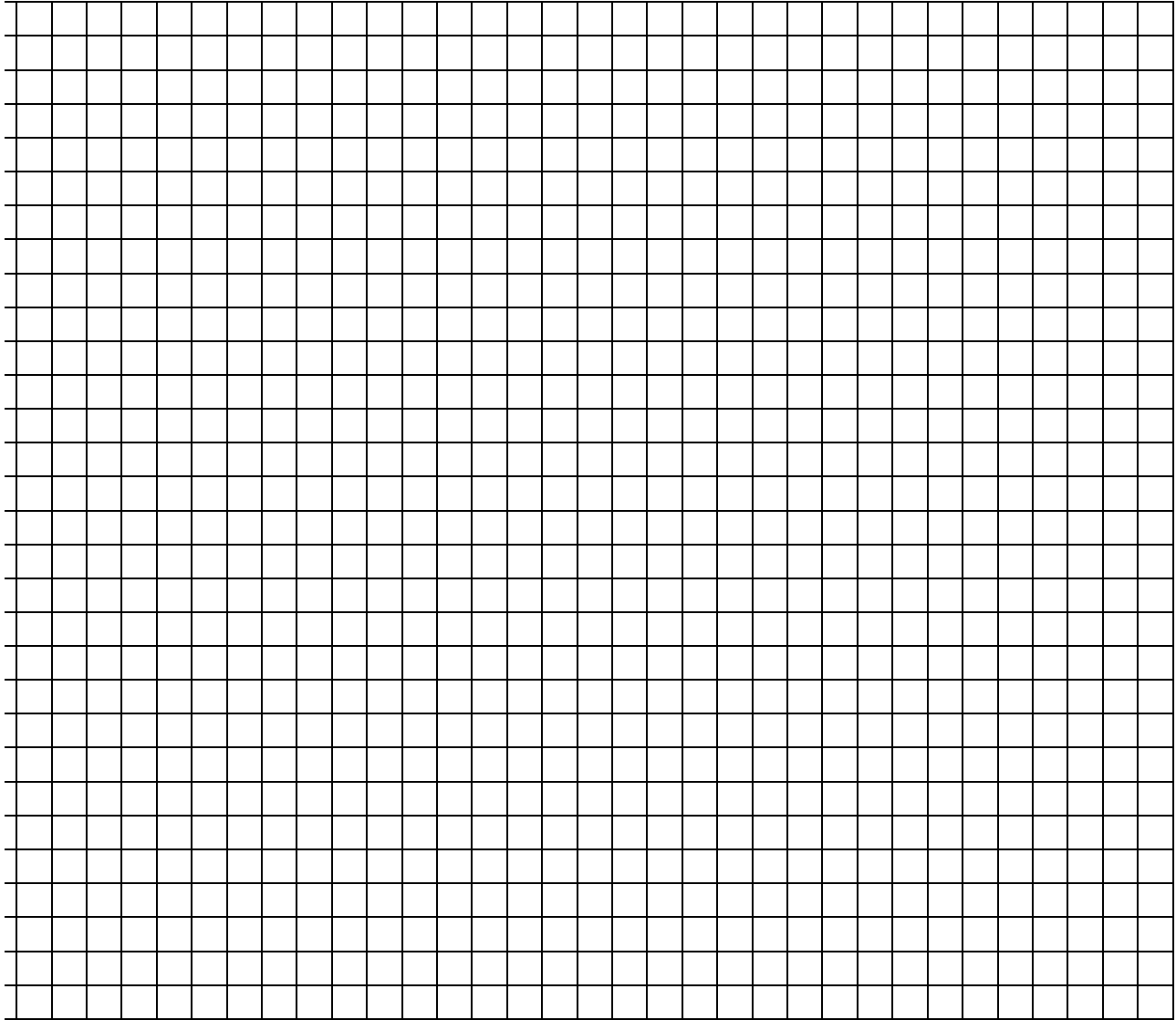
**Procedure:**

1. Take your piece of aluminum and build the first boat design shown below. Make sure it is water tight. If water leaks into the boat, it will sink faster.
2. Place your boat into the water and check for leaks.
3. Start loading your boat with rocks. Load one rock at a time and wait to see if the boat sinks. Be sure to place the rocks carefully because too much mass on one side of the boat might make it tip over.
4. Once your boat sinks, not counting the rock that sunk you boat, measure the mass of all the rocks with your triple-beam-balance. Record the mass in the data table.
5. Repeat the test with the same boat design two more times.

**Data Table:**

Boat Design #1			Boat Design #2			Boat Design #3		
<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>	<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>	<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>
g.								
<u>Average:</u>			<u>Average:</u>			<u>Average:</u>		

**Graph Results:** Graph the average mass held by each boat design. (3 bars... one for each boat design.)



**Conclusion:** (What happened in your experiment? What is the answer to your Problem/Question? Was your hypothesis correct?) \_\_\_\_\_

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