Name: _____ Date: _____

Master 3-1

Protocol for the Sail Test

1. Make a sail for the wood block by piercing 2 holes through a piece of paper with the craft stick or pencil. Figure 3-1.1 shows what this should look like.

   The craft stick or pencil is called the mast. The paper is called the sail.

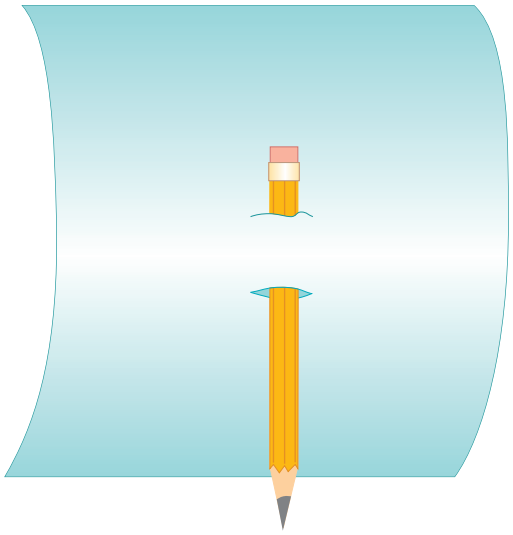

Figure 3-1.1: A mast and a sail. The pencil in this figure is a mast. The paper is a sail.

2. Attach the sail to the base of the wood block with a piece of modeling clay. Figure 3-1.2 shows how the boat should look with the sail attached.

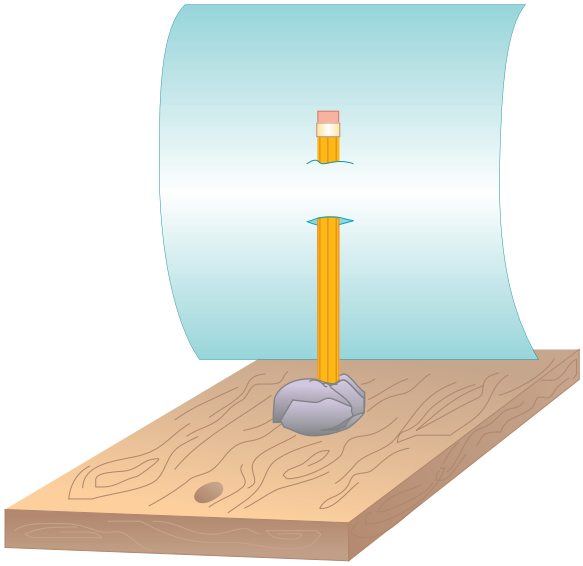

Figure 3-1.2: How to attach the sail. This is one way to attach the sail and mast to the boat. Use the modeling clay to attach it. Make sure the craft stick or pencil point is pushed into the lump of clay.

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3. Place the boat in the tub or sink of water. Create a wind that is strong enough to sail the boat across the water.

   You will need to run more tests using different sails. Make sure you know how you created the wind so you can do it the same way next time.

4. With your team, decide what you will change in the next tests. *Do not begin running the tests at this point*.

   You might try different sizes and shapes of sails, different masts if they are available, or different locations for the mast.

5. Create a data table in your technology notebook. You will need to record the results of the tests. You will also need space for recording what you changed for these tests.

   Remember what your class decided on for the criterion that describes the purpose of the boat. Make sure your data table is set up to record results related to that criterion.

6. Run the additional tests. Be sure to record the data each time you try a new test.
7. Using a different color, put a star beside the conditions that worked best for the boat.
8. Return the materials to where they belong.