

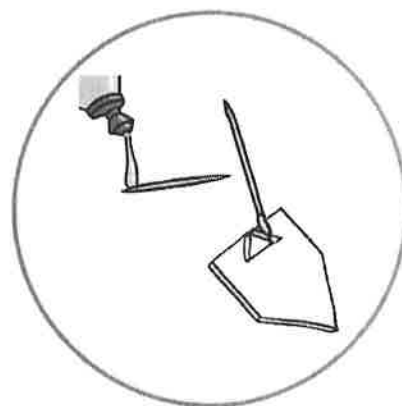
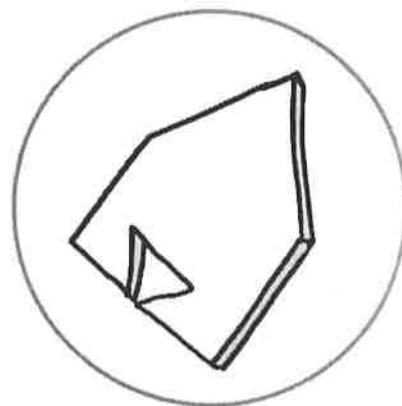
BUILD A SOAP-POWERED MODEL BOAT!

YOU WILL NEED:

- A foam tray (like the kind meat comes in) or a piece of non-currogated cardboard
- A tray, bowl, or cookie sheet full of water
- Liquid dish soap
- A toothpick

WHAT TO DO

1. Cut the foam tray or cardboard into a boat shape as shown here. A good size seems to be about 2 inches long.
2. Dip the toothpick into the liquid soap and use the toothpick to put soap onto the sides of the notch at the back of the boat.
3. That's it! Now carefully place the boat onto the surface of the water and watch it scoot across the water for several seconds - you've made a soap-powered boat! To demonstrate the boat again, you will need to rinse out the tray to remove any soap from the previous demonstration.



HOW DOES IT WORK?

Soap is a rufactant - that means that it breaks down the surface tension of water. As the surface tension is broken up, it creates enough of a force to push the lightweight boat across the surface.

MAKE IT AN EXPERIMENT:

The above is a DEMONSTRATION. To make it a true experiment, you can try to answer these questions:

1. Does liquid soap last longer than a solid piece of soap?
2. Does warm water work better than cold water?
3. What materials make the best floating boat?

Element Tissue Project

Name: _____

Period: _____

Directions: Collect data about your element using reference materials and internet sites. Construct the element tissue box. Place the data collected neatly on the 6 sides of the box following instructions.

Grading: 100 points total – Data collected must be thorough and accurate. This is based on construction of the cube, placement of data on the cube, following directions, and overall neatness. Be sure to turn in your sources that you used to complete the project. On the bottom of the cube make sure to include your name and period.

Side #1 – Symbol and Name:

1. Symbol of your element (make this large on your cube). **My element:**
2. Name of the element.

Side #2 – Physical & Chemical Properties of _____:

One image of your element printed off the internet:

State of matter at room temperature and pressure:

Density:

Melting point:

Boiling point:

Side #3 – Periodic Table Information:

Type of Element (metal/metalloid/etc):

Atomic Number:

Atomic Mass:

Period:

Group Number:

Name the family to which your element belongs:

Side #4 – About _____:

Lewis dot structure:

Bohr Model:

Electron configuration: