

Station Setup and Instructions (Teacher Master)

Station 1: Butter

Materials (4 Setups per Station)

- 2 pats of butter (not margarine)
 - 1 pat melted
 - 1 pat not melted
- 2 small microwavable plastic containers or heat-resistant bowls
- Pot holders

Preparation

Cut 2 pats of butter from a stick of butter. Place the first pat of butter in one of the plastic containers. Place the second pat of butter in the other plastic container and heat it in a microwave until the butter is melted.

If a microwave isn't available, use the griddle from the science kit to melt the butter. Place the second pat of butter in a heat-resistant bowl and set it on the griddle at medium to high heat. Allow 8–10 minutes for this pat of butter to melt. **Safety note:** *Make sure to use only a heat-resistant bowl on the griddle. Also use a pot holder to handle the bowl, and set the heated bowl on a separate pot holder to cool.*

Station 3: Paper

Materials (4 Setups per Station)

- 2 clear, sealable plastic bags (or plastic containers)
- 2 pieces of paper (4.25" x 5.5")
 - 1 piece unburned
 - 1 piece partially burned (some ash but still recognizable as paper)

Preparation

Put a piece of unburned paper in a sealable plastic bag (or plastic container). Partially burn the second piece of paper and capture the ash. (Make sure to burn only the edges of the paper so that students can still recognize the material as paper.) Put the ash and the remaining paper in the second sealable plastic bag (or plastic container).

Station 2: Ice/Water

Materials (4 Setups per Station)

- 2 ice-cube trays filled with water
 - 1 frozen
 - 1 not frozen
- 2 plastic containers or trays to hold the ice-cube trays

Preparation

Fill an ice-cube tray with water and place it in the freezer. Once the cubes are frozen, place the ice-cube tray in a plastic container or on a tray. Fill the second ice-cube tray with water and place it in a plastic container or on a tray. (Do not freeze the water in the second ice-cube tray.)

Station 4: Baking Soda and Vinegar

Materials (4 Setups per Station)

(Use the materials below to prepare a complete set for the station.)

- 1 quart-sized, sealable, plastic freezer bag
- Measuring spoons (1 tablespoon and 1 teaspoon)
- White vinegar
- Baking soda
- Clear plastic vial with snap-on cap (1-ounce portion cups with lids work well)
- Paper towels

Preparation

Measure 1 teaspoon of baking soda and place it in the sealable freezer bag. Then measure 2 tablespoons of white vinegar and place them in the plastic vial. Secure the snap-on cap and wipe any vinegar off the outside of the vial with a paper towel. Place the vial in the same freezer bag as the baking soda. Remove as much air as possible from the bag; then seal it securely. When told to do so, students should be able to pop off the cap on the vial without opening the bag.