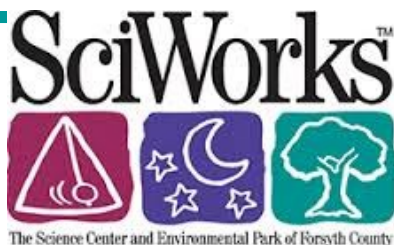


**Pop,
Bubble,
Fizz**



K-2

PRE-VISIT ACTIVITY

Apple Chemist—Teacher Information

Ask your students if they have seen what happens to an apple that has been cut and left out for a while. Most of them have probably seen that the apple turns brown. Why? Cutting the fruit breaks cells in the apple, and releases chemicals that react with the oxygen in the air. The reaction (**oxidation**) produces melanin, a brown pigment.

There are several ways to prevent the reaction. One is to change the pH, by adding an acidic substance, such as lemon juice or crushed vitamin C tablets. Another is to cool down the reaction, by storing the cut apple in the freezer or refrigerator; or by heating it up, such as cooking. One more way is to restrict the plant chemicals' exposure to oxygen, which can be done by vacuum sealing or placing the cut apple under water.

Materials

Apple

Vitamin C tablet, crushed, or Lemon Juice



Apple

Steps:

- 1.) Cut the unpeeled apple in half.
- 2.) Sprinkle the vitamin C powder or lemon juice over the cut surface of one of the apple halves.

**Pop,
Bubble,
Fizz**



K-2

PRE-VISIT ACTIVITY

Apple Chemist, continued

Steps:

- 3.) Allow both apple sections to set uncovered for an hour.
- 4.) After the hour, have your students examine the two halves of the apple and relay their observations. Explain that the oxygen in the air is responsible for the chemical reaction that they have witnessed on the untreated apple half.

More to Do:

You and your students can brain-storm other ways to repeat the experiment, using different materials or methods. Be sure to have the students share their **hypothesis, or what they think will happen**, before conducting the experiment.



**Pop,
Bubble,
Fizz**



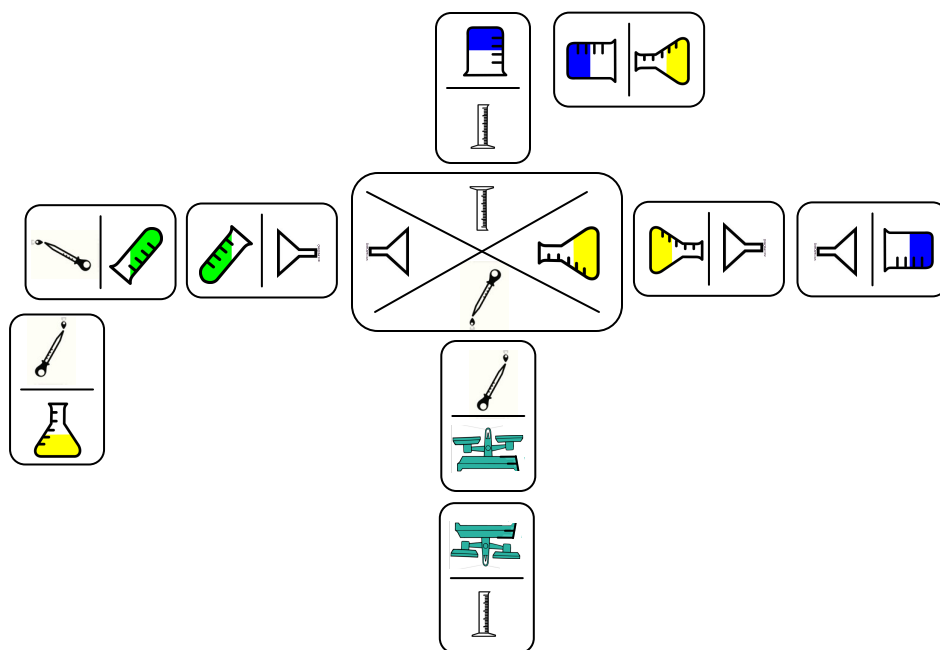
K-2

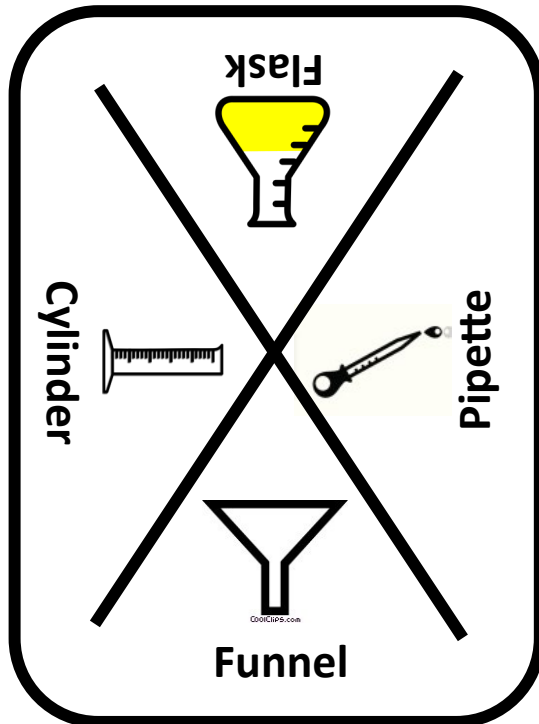
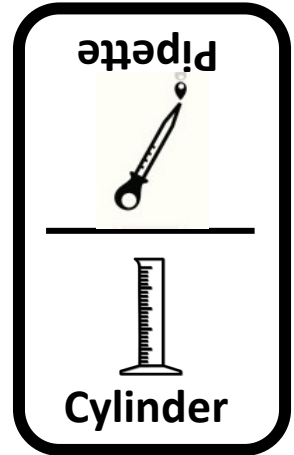
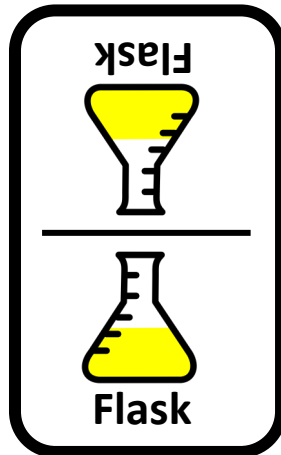
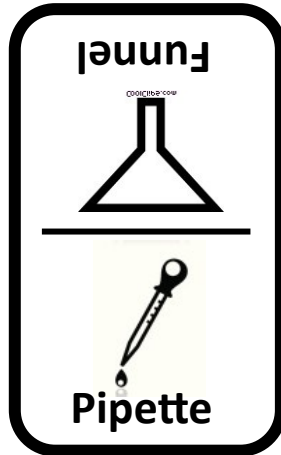
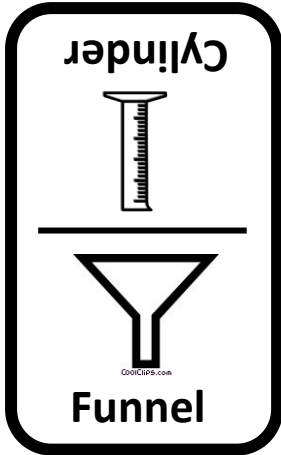
AFTER-VISIT ACTIVITY

Pop, Bubble, Fizz Dominoes

How to Play:

- 1.) Students play in groups of 2-4 players. Each group gets a set of the 28 dominoes plus the starter domino, pre-cut. The dominoes are placed face-down on the table.
- 2.) Each student draws 7 dominoes (any extras remain on the table to be pulled when they have run out).
- 3.) Teacher assigns the order of players. Teacher places starting domino face-up in the center of the table.
- 4.) The objective is to match the same image end-to-end. As each player takes a turn, she or he places one domino as shown below. If they do not have a matching domino, they draw from the pile (if any remain) or if no matches are available, skip their turn. The first player to get rid of his or her dominoes wins.

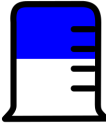





Pop, Bubble, Fizz

AFTER-VISIT ACTIVITY

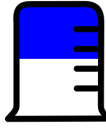
Beaker






Flask

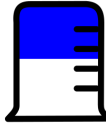
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Pipette

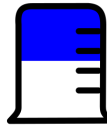
Beaker






Test Tube


Beaker






Cylinder


Cylinder






Test Tube


Pipette






Test Tube


Flask






Test Tube


Flask






Cylinder

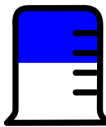
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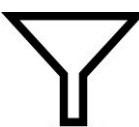




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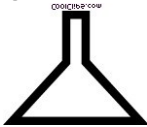
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Funnel


Funnel






Test Tube

Flask



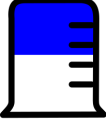



Funnel

Pop, Bubble, Fizz

AFTER-VISIT ACTIVITY

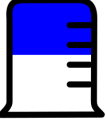
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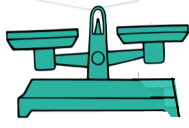




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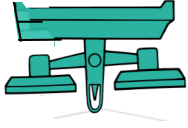
Beaker






Scales

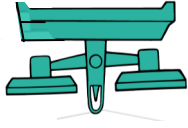
Scales






Test Tube


Scales

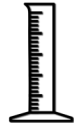




Cylinder


Cylinder






Cylinder


Pipette

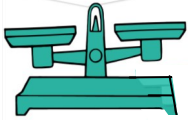




Pipette

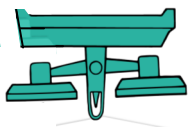
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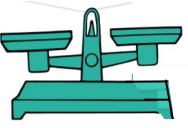




Scales

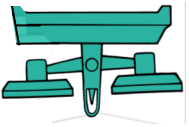
Scales






Scales


Scales






Pipette

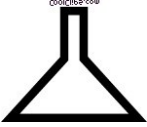
Test Tube






Test Tube

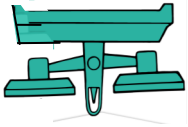
Funnel






Funnel

Scales





Funnel