STUDENT STEM INSTRUCTIONS

* Create a STEM Folder, place all STEM documents in the folder & bring to your first STEM class when school reconvenes.
* Use this form to document each experiment you decide to do. Place your name & the name of the experiment on the top of the page.
* Take notes, log observations & include pictures or drawings of outcomes.
* Choose four science experiments to complete from the following list at the end of this document.
* Please email Mrs. Grizzle with any questions.
* You will email her your **completed** assignments. [rgrizzle@brightenacademy.com](mailto:rgrizzle@brightenacademy.com)

D.I.Y. HAND SANITIZER, The Quick (Gel) Recipe

Ingredients:

* Isopropyl alcohol
* Aloe vera gel
* Tea tree oil (or other essential oil)

Mix 3 parts isopropyl alcohol to 1 part aloe vera gel.

Add a few drops of tea tree oil to give it a pleasant scent and to align your chakras.

This demonstrates how to use ingredients in combination to create a useful product.

The purpose of the gel is to make the product easier to transport, slow the evaporation of the alcohol so it stays on the skin long enough to work well and to make it gentler on the hands.

INVISIBLE INK EXPERIMENT

Step 1

Gather your ingredients and tools. For this experiment , you will need a piece of paper, a cotton swab, a heat source (a lamp or electric stove works), and milk or lemon.

Step 2

If you are using lemon juice, squeeze your lemon into a glass. You can mix it with a little bit of water. Dip the cotton swab into the milk or lemon juice and start writing your message. Let your message dry completely..

Apply heat to get the secret message to appear.

Step 3

Once dry, an adult should hold the sheet of paper over a heat source. We used an electric stovetop. You can also use a lamp or a blow-dryer.

Step 4

As the mild or lemon “ink” heats up, it will oxidize and turn brown.

Your messages will appear like magic!

You can try this experiment with other substances such as vinegar, honey, or orange juice.

This experiment demonstrates how heat can cause oxidization to occur in different substances.

5 MINUTE ICE CREAM

Here’s what you’ll need for this experiment:

1 tablespoon sugar

½ cup milk, dream, or half & half

¼ teaspoon vanilla extract (or other flavoring}

6 tablespoons salt

Enough ice to fill the gallon-sized bag halfway

1 gallon-sized Ziploc bag

1 pint-sized Ziploc bag

Ordinary table salt will work, but salt that has larger crystals, such as kosher salt or rock salt, will work better.

Mix the salt around in the ice and set aside.

Fill the gallon-sized bag halfway with ice. Add the salt, (ordinary table salt, kosher salt or other).

Pour the milk, sugar and vanilla extract into a bowl or other container and mix.

Carefully pour the mixture into the pint bag.

Close the bag, making sure it is completely sealed.

Put the pint bad into the gallon bag. Make sure the pint bag gets buried in the ice.

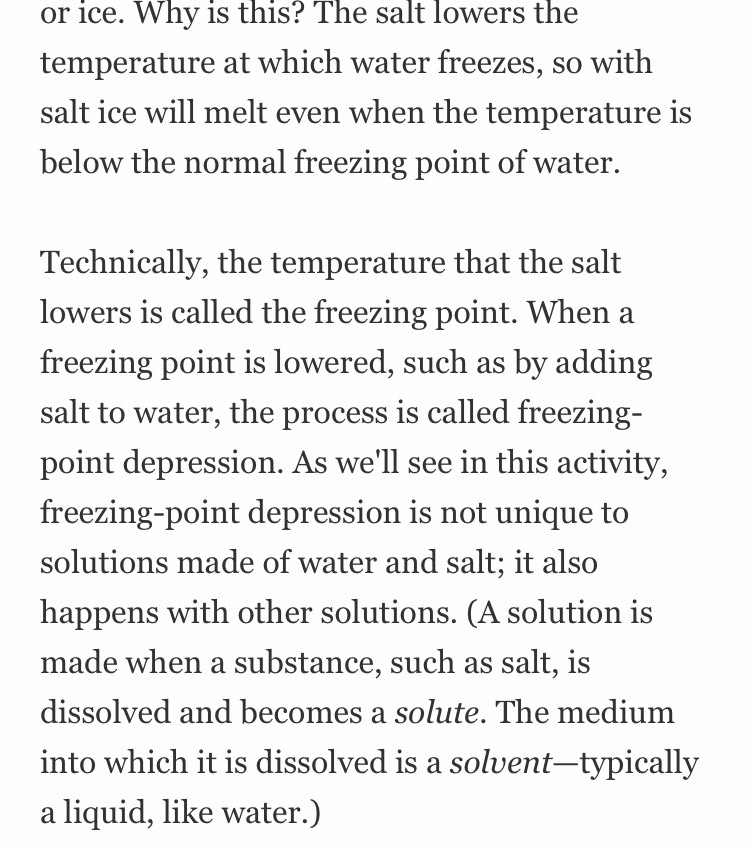
Seal the gallon bag. Shake the bags vigorously for five minutes.

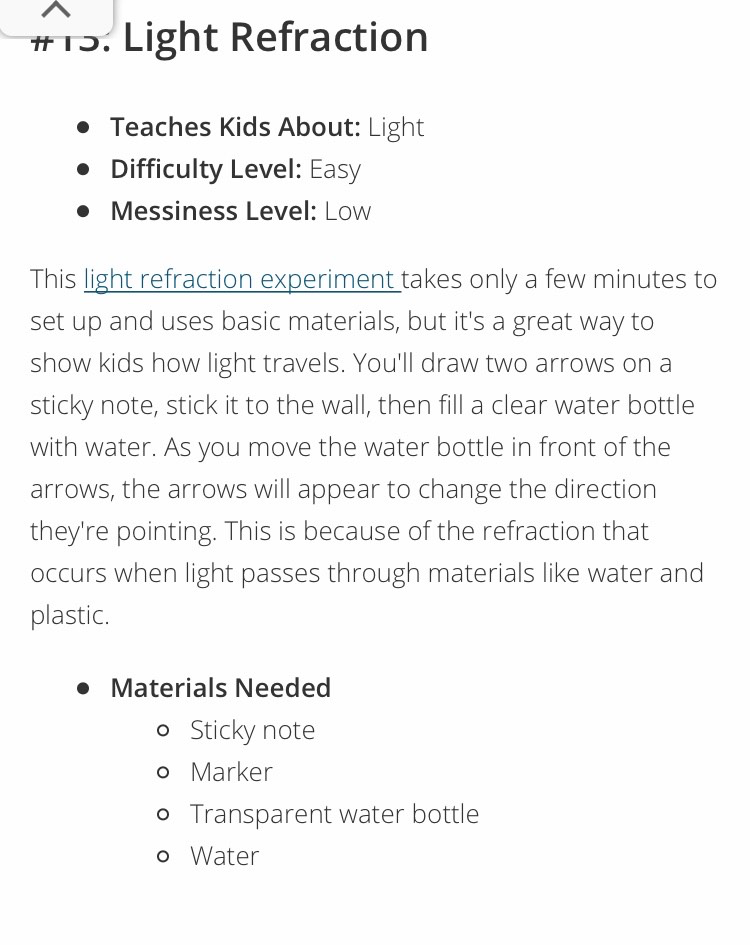
You might want to use a towel to hold them since they will be very cold and slippery from condensation.

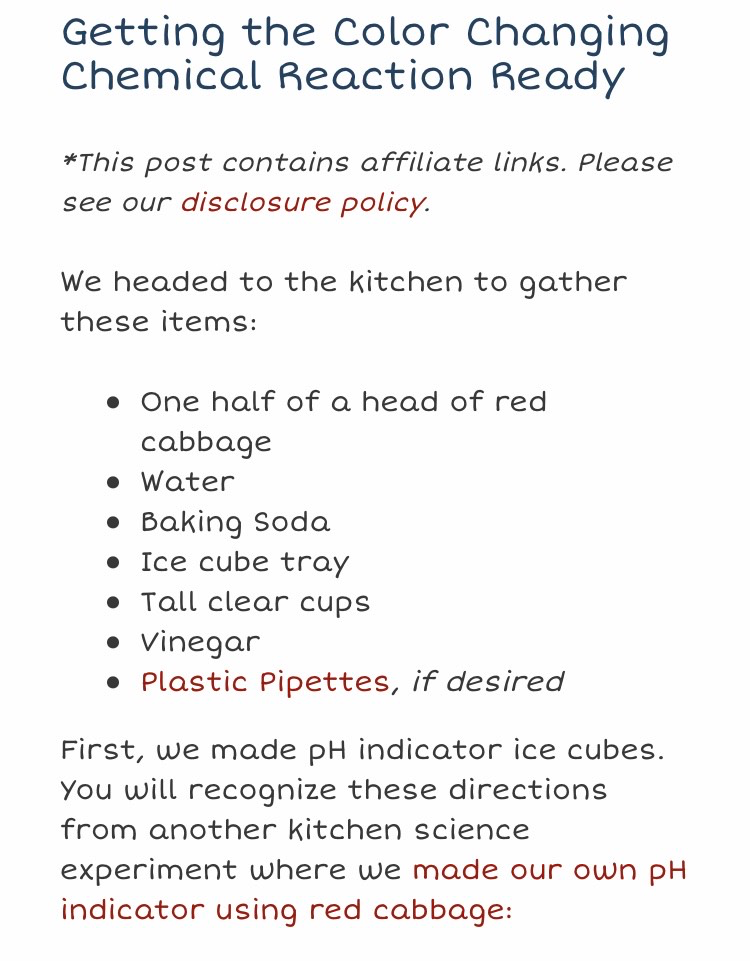
Remove the pint bag, open it and grab a spoon!

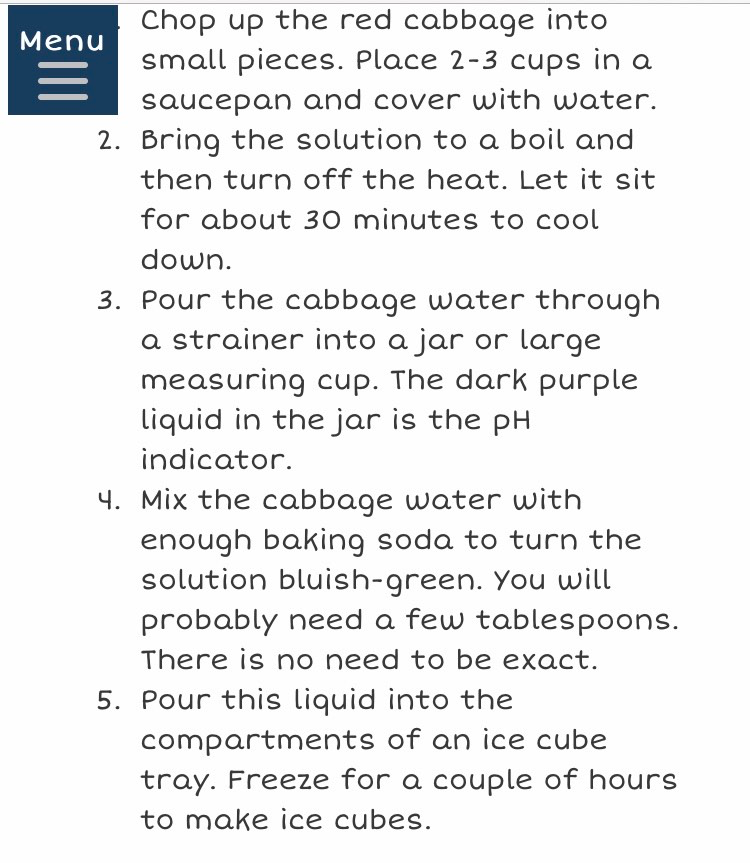
TIPS:

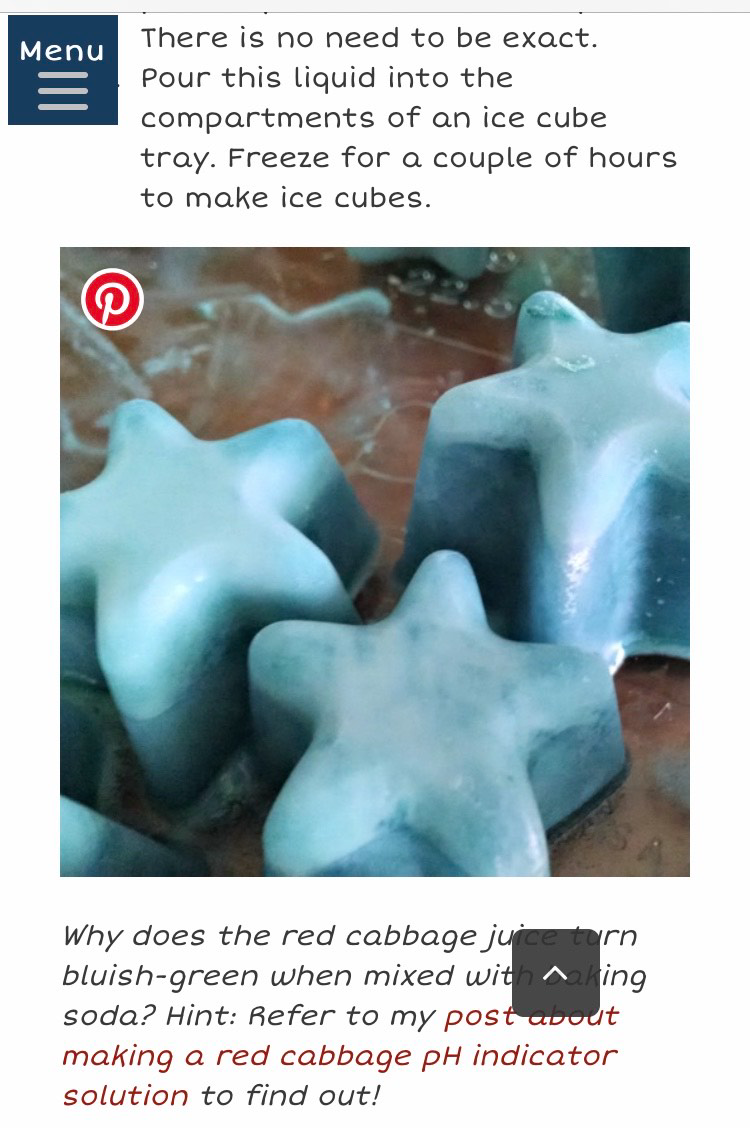
* Milk will provide a less rich, lower calorie ice cream, while using heavy cream will be the opposite.
* This method will make a small amount of ice cream, about enough for two people to enjoy.
* Flavor combinations are almost limitless. Chocolate syrup is a basic option while various flavor extracts can lead to more exotic variations. Try combining mint extract with chocolate, or adding small chocolate chips.



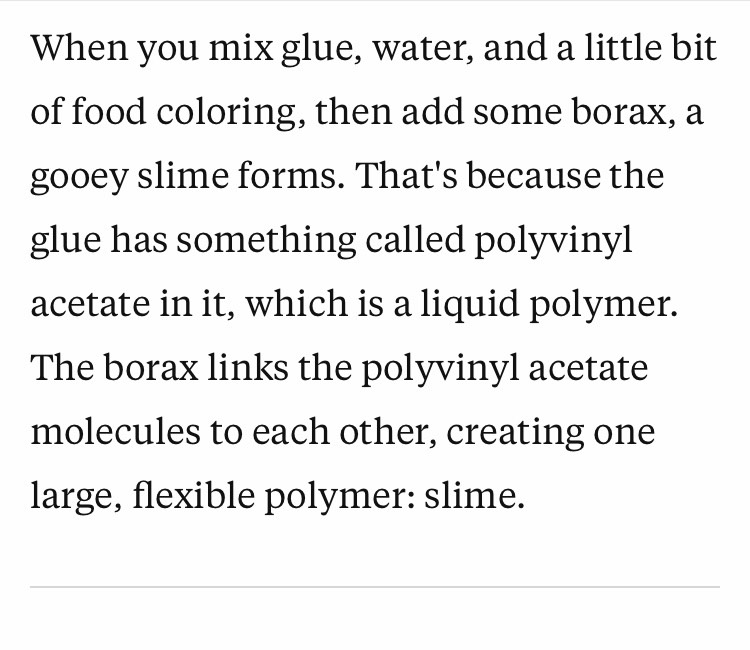


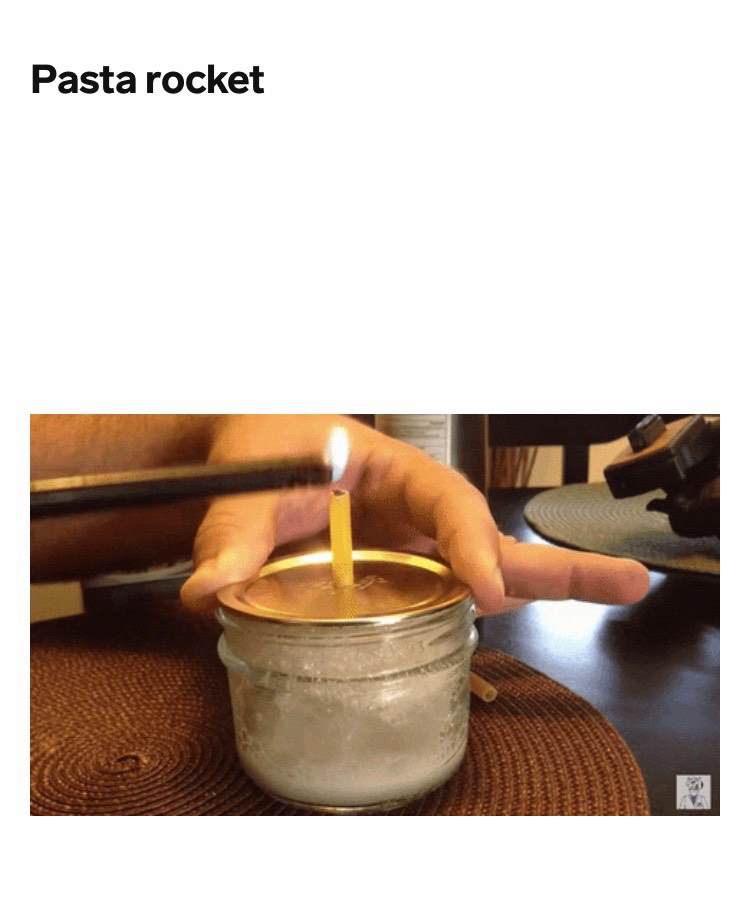


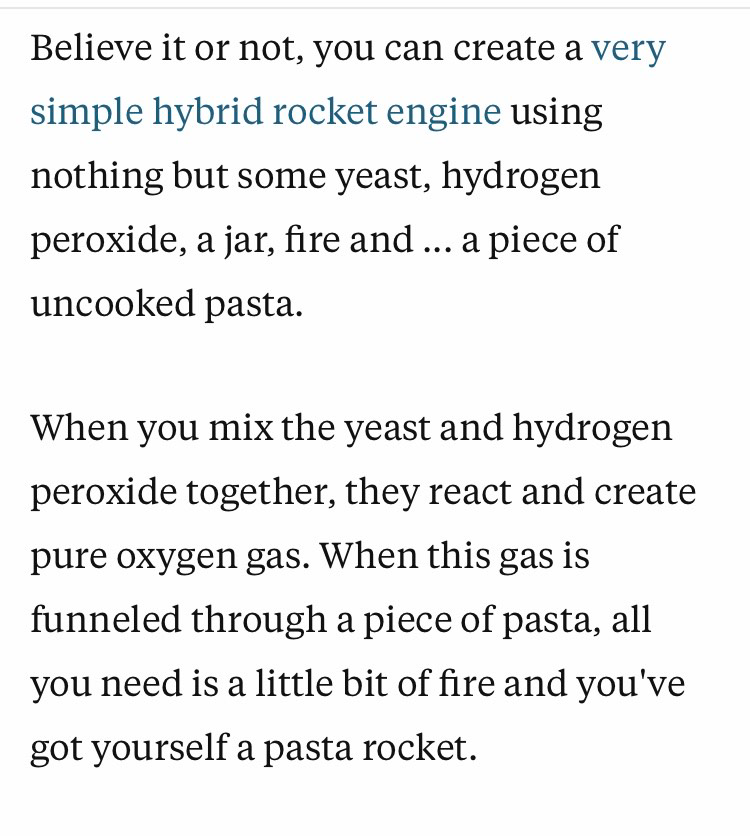


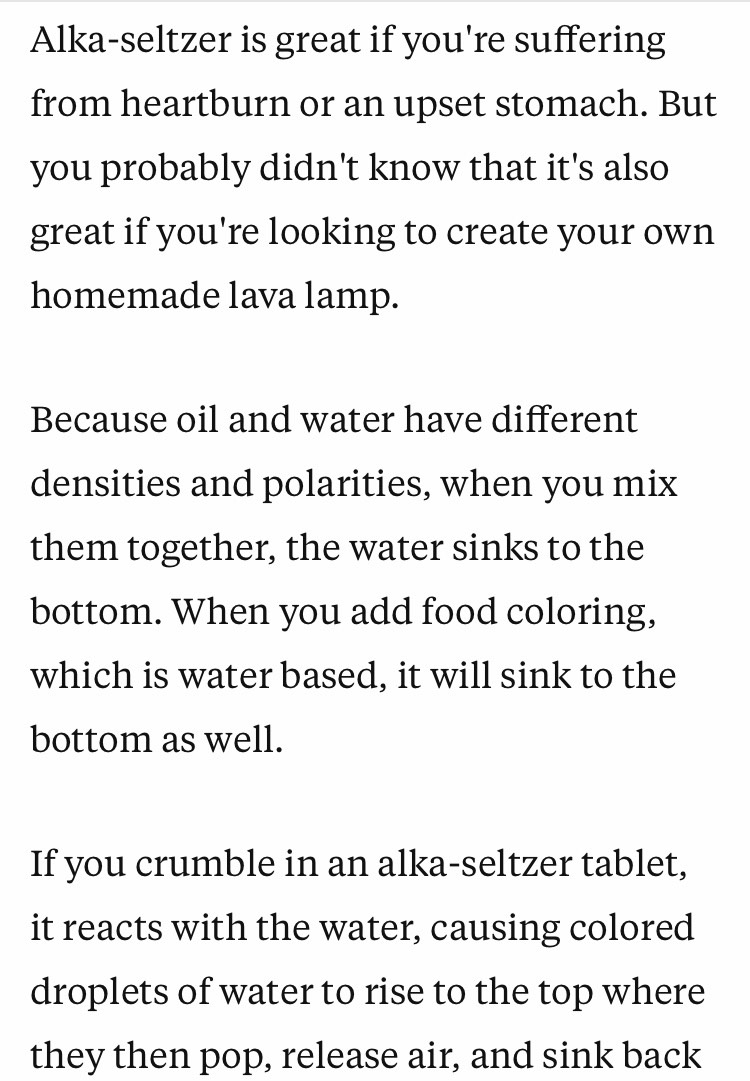


















A screenshot of a social media post

Description automatically generated