



Erupting Watermelon

Happy National Bicarbonate of Soda Day! Or Happy Baking Soda Day! Baking soda is used for many different things from baking to cooking to cleaning to creating explosions. Instead of creating a volcano model eruption we are using a healthier option, a watermelon. Grab a pack of Kool-Aid and some baking soda to create this unique chemical reaction.

TEKS:

6.7A Demonstrate that new substances can be made when two or more substances are chemically combined, and compare the properties of the new substances to the original substances.

8.5E Investigate how evidence of chemical reactions indicate that new substances with different properties are formed.

How To:

1. Cut the watermelon in half and scoop out the fruit from one half (you can save the fruit to eat at a later time), leaving only the rind. If you do not want to use a watermelon, use a plastic bowl.
2. Fill up the empty watermelon rind or bowl with baking soda. The more baking soda you add, the more times you can make the reaction occur.
3. Add about a teaspoon of dish soap to the rind or bowl to produce an even foamier reaction. (This step is optional.)
4. Fill a squeezable bottle with the packet of Kool-Aid and water. One packet of Kool-Aid will work for up to a 16 ounce bottle of water.
5. Squeeze the liquid into the watermelon rind or bowl and watch a watermelon eruption!

Materials:

- Watermelon or plastic bowl
- Watermelon Kool-Aid powder
- Baking soda
- Dish soap (optional)
- Squeezable bottle (like a ketchup bottle or travel shampoo bottle)
- Water

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The STEM Explanation:

This activity works because of a chemical reaction. Chemical reactions are reactions where two or more elements/substances combine to create something completely new. When the baking soda and Kool-Aid are mixed, carbon dioxide gas (CO₂) is released as a byproduct. This release creates the fizzing eruption you see in the watermelon. When soap is added, the CO₂ gas fills the soap bubbles, causing lots of suds.

Career Connection:

A *chemist* is a scientist who researches and experiments with the properties of chemical substances. They measure the effects of chemical compounds in various situations and study inter-chemical reactions.

Resources:

- <https://www.sokanu.com/careers/chemist>
- <http://www.learnplayimagine.com/2014/06/erupting-watermelons.html>

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