

K-2 Chemistry

Introduction to Science: Baking Soda + Vinegar

Goals:

- Learn about states of matter: words solid, liquid, gas
- Learn the word reaction

Method:

1. Give a short introduction. Key points:
 - we are going to do science
 - science is fun! (repeat this often)
 - scientists observe carefully
 - matter: solid liquid, gas
2. We are going to break into groups of ~ 6 students each
 - can do this after balloon demo depending on number of adults per group.
3. In each group ask the kids for examples of solid, liquid and gas.
 - (they might ask is gasoline is a gas)
4. Do demo.
 - Put the balloon filled with baking soda (solid) on the bottle that contains a little vinegar (liquid) and combine ingredients to get carbon dioxide bubbles (gas).
 - Watch the balloon inflate.
 - Ask the kids: What is happening inside the bottle? What is happening to the balloon? Why? How do you know? Talk about what a reaction is.
5. Let the kids experiment.
 - Kids have a tray with cups, vinegar, baking soda and pipettes.
 - The kids might want to try using different amounts of vinegar and/or baking soda to see if they get different results.
6. Clean up space.
7. Kids get their crayon box and do worksheet "What have you learned?"

Definitions:

1. Solid – something with a definite shape; you can hold it
2. Liquid – something that fills the shape of a container; it has a definite size, but not a definite shape; capable of flowing; ex: water, milk, blood
3. Gas – can fill a container of any size and shape; ex: air in a balloon or lungs
4. Reaction – when two chemicals interact and something happens