**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