

Bubbling Cauldron Dough

Collect

- Baking soda
- Cornstarch
- Green, orange, or red tempera paint
- Vinegar
- Spray bottle or eye dropper
- Small pot



Mix up your dough

1. Place $\frac{1}{2}$ cup of baking soda and $\frac{1}{2}$ cup of cornstarch into a large bowl.
2. Squirt a little bit of paint into the bowl and start to mix everything together with your hands.
3. Keep adding a little bit of paint at a time, mixing until the dough holds its shape but puddles on a table top (like silly putty).

Make it bubble

4. Put your finished cauldron dough in a small pot or pan. Wait for it to ooze and puddle at the bottom of the pot.
5. Use the eye dropper to put a few drops of vinegar over one spot, or use the spray bottle to lightly spray vinegar over the whole pot.
6. Watch what happens!

How does it work?

This is a twist on the classic baking soda and vinegar volcano experiment – an acid-base reaction. Those little bubbles you see in your bubbling cauldron are actually carbon dioxide gas, the same gas you exhale when breathing! It's not just respiration; we experience acid-base reactions every day. Whether it's using a cleaning spray to wipe away grease on a stove top or trying to ease heartburn, lots of processes depend on the interactions between acids and bases.

Try it again!

Coffee, soda, lemon juice, and orange juice are all common household acids you might find in your kitchen. If you still have some cauldron dough left, try these other acids to see which makes the dough bubble better.