

Thank you so much for joining in our grandfriends social! It was great to have you pop in to a STEM class. If you liked the experiment and want to try it at home- here are the instructions. Most ingredients can be found at the grocery store or in your pantry.

original post from Carla at Preschool Powol Packets

Puking Pumpkin – also called elephant toothpaste which can be made in a water bottle



This exciting science experiment works great in a discussion on reactions, as a demonstration, or as an actual experiment. To use it as an experiment,

perform it once with your grandchild, then ask your grandchild what might happen if you changed the amounts or left out an ingredient. Let them direct the experiment! Also, the foam created is safe to touch. It is simply water, oxygen gas, and soap, so if your child has no soap allergies, they can experience and experiment with the texture of the foam!

How to make Elephant Toothpaste:

1. Set a **plastic water bottle** in the middle of a **pan** to catch the toothpaste.
2. Add **1/2 cup 6% hydrogen peroxide** to water bottle (*3% from the*

grocery store will work, but you will not make as much foam.

3. Add 4-5 drops **food coloring**
a squirt of **dish soap** to the water bottle
4. In a separate container (like a small Dixie cup) Mix 2 Tablespoons **warm water** and 1 teaspoon **yeast**
5. Pour the yeast mixture into the water bottle...and be amazed!

If you're working with older kids, you may be interested in how it works:

The reaction is summarized by this formula: $2 \text{H}_2\text{O}_2 \rightarrow 2 \text{H}_2\text{O} + \text{O}_2$.

Hydrogen peroxide (H_2O_2) naturally

breaks down into water and oxygen gas. It is stored in opaque containers to help slow down this process. Catalase (an enzyme in all living things, including yeast) speeds up the reaction. Dish soap catches the oxygen and makes bigger bubbles and the food coloring makes it look cool. The foam and bottle feel warm because the reaction is exothermic--it releases energy as heat.

