

## VBS 2020 Science Experiments

### Day 3 – Make Elephant Toothpaste

<https://www.scholastic.com/parents/kids-activities-and-printables/activities-for-kids/math-and-science-ideas/home-science-experiments-elephants-toothpaste.html>

You Will Need: A clean 16-oz plastic soda bottle (or jar), ½ cup 20-volume hydrogen peroxide liquid (20-volume is a 6% solution; you can get this from a beauty supply store or hair salon), 1 Tablespoon (one packet) of dry yeast, 3 Tablespoons of warm water, Liquid dishwashing soap, Food coloring, Small cup, Safety goggles

Step 1: carefully pour the hydrogen peroxide into the bottle (Hydrogen peroxide can irritate skin and eyes, so put on those safety goggles! An adult should do this step.)

Step 2: Add 8 drops of your favorite food coloring into the bottle.

Step 3: Add about 1 tablespoon of liquid dish soap into the bottle and swish the bottle around a bit to mix it.

Step 4: In a separate small cup, combine the warm water and the yeast together and mix for about 30 seconds.

Step 5: Now the adventure starts! Pour the yeast water mixture into the bottle (a funnel helps here) and watch the foaminess begin!

Note: As you can see from the picture, foam will overflow from the bottle, so be sure to do this experiment on a washable surface or place the bottle on a tray.

#### Science Involved

The yeast contains an enzyme called Catalase that breaks down hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) into oxygen gas and water. The oxygen gas gets trapped by the soap, and you get a large foamy solution!

#### Bible Connection

Elephants are very large, so it would take toothpaste this size to get his teeth clean. Can you imagine how much toothpaste it would take to keep God's teeth clean?

