

Elephant Toothpaste

Collect

- 3% hydrogen peroxide
- 2 tablespoons yeast
- $\frac{3}{4}$ cups warm water
- A bottle of dish soap
- Empty 12 oz soda bottle or similar bottle with a narrow neck
- Tablespoon(2)
- Funnel
- Cookie sheet or tray

Get ready for a fizzy eruption

1. Warm the water and yeast together until there are no clumps.
2. Place the empty soda bottle on top of the tray—this will catch the soapy mess.
3. Squeeze about one teaspoon of dish soap into the bottom of your soda bottle.
4. Place the funnel in the mouth of the soda bottle and pour in two tablespoons of hydrogen peroxide. Swirl the soap and hydrogen peroxide together.
5. Using a clean tablespoon, pour one tablespoon of the yeast mixture into the bottle. Remove the funnel from the opening of the bottle.
6. Observe the decomposition reaction as hydrogen peroxide becomes water and oxygen.

Heads up! The ingredients of this elephant toothpaste mixture are safe to wash down the drain with plenty of water.

What's happening?

When hydrogen peroxide decomposes, it breaks down into water and oxygen. At room temperature oxygen is gas. We added soap so we could capture that gas in the form of bubbles. The yeast acted as catalyst, a material that speeds up a chemical reaction. The yeast did not combine with the hydrogen peroxide to make the water and oxygen; you can investigate the bottom of your soda bottle and find the yeast still sitting around.