

Elephant Toothpaste

What Do I Need?

- An empty 16 oz plastic bottle
- ½ cup hydrogen peroxide
- Dish detergent
- 3-4 drops of food coloring
- 1 t yeast
- Funnel
- Foil cake pan with 2 inch sides
- Warm water
- Safety goggles
- Old Shirt

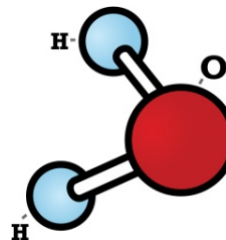


What Do I Do?

1. Put on the shirt and safety goggles.
2. Place the bottle upright in the pan and put the funnel in the top.
3. Mix the warm water and yeast.
4. Pour the hydrogen peroxide into the funnel and add a couple of drops of color.
5. Add the dish detergent to the bottle.
6. Add the yeast to the bottle and remove the funnel quickly.
7. What did you see? Were there any other ways to tell the reaction occurred? (hint: feel the bottle)

What's Going On?

Hydrogen peroxide may look like water, but it has an extra Oxygen. This makes it a powerful oxidizer. The yeast acts as a catalyst, speeding up the reaction when the hydrogen peroxide is decomposed. Hydrogen peroxide breaks down to form water and oxygen. The erupting soap bubbles are filled with this oxygen. If you look closely, you may see steam coming out of the bottle! This results because the reaction is exothermic, meaning it gives off heat.



Source: Steve Spangler Science