



Elephant Toothpaste

You will need:

750ml plastic bottle, hydrogen peroxide (100ml bottle of 6% from Chemist), detergent, food colouring, small jug, yeast, warm water, funnel, tablespoon, teaspoon, large plastic tray.

What to do:

1. Add 1 tsp of yeast to 2Tbsp warm water in the jug and stir; set aside
2. Stand the bottle in the centre of the plastic tray.
3. Put the funnel in the top of the bottle and carefully pour in the whole bottle of hydrogen peroxide. (Adult supervision needed)
4. Add 2 drops of food colouring and swirl the bottle to mix.
5. Add 2 squirts of detergent to the bottle.
6. Pour the yeast mixture into the bottle and quickly remove the funnel.

Take it further:

Stand back and watch. What is happening? Does it indicate a chemical reaction? How do you know?

Once the reaction has occurred, feel the outside of the bottle. Is it giving off heat? What does this indicate?

The Science:

The yeast works as a catalyst to release the oxygen molecules from the hydrogen peroxide solution. The oxygen-filled bubbles, which make up the foam, are actually the remainder of what happens when the hydrogen peroxide breaks down into water (H_2O) and oxygen (O_2). These bubbles are perfectly safe to touch. The bottle will feel warm to the touch because this is an **exothermic** reaction in which energy, in the form of heat, is given off.

