

JUNGLE ISLAND

Elephant Toothpaste

Materials:

- Recycled Water Bottle Or Paper/ Plastic Cup
- Hydrogen Peroxide
- 1 TBS Dry Yeast
- 3 TBS Warm Water
- 1 TBS Liquid Dish Soap
- Food Coloring (Optional)
- Funnel
- Large Tin Trays

Objective:

Explorers will learn about exothermic reactions and conduct an experiment demonstrating one.

Lesson:

Exothermic Reactions

Explain to explorers that they will get to pretend to be mad scientists and today the experiment will involve

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exothermic reactions. What is an exothermic reaction? This is a chemical reaction that produces heat!

(Please make sure kids do not touch the elephant toothpaste once it begins to foam. It will be producing some form of heat and will still have traces of hydrogen peroxide in it.)

Endothermic Reactions

What is an endothermic reaction? After learning what an exothermic reaction is, have kids try to guess this one. An endothermic reaction is the opposite of an exothermic reaction. This means that it absorbs heat from the environment and feels cold instead of hot!



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Now that we learned the difference between these two reactions, let's make an exothermic one to test this out:

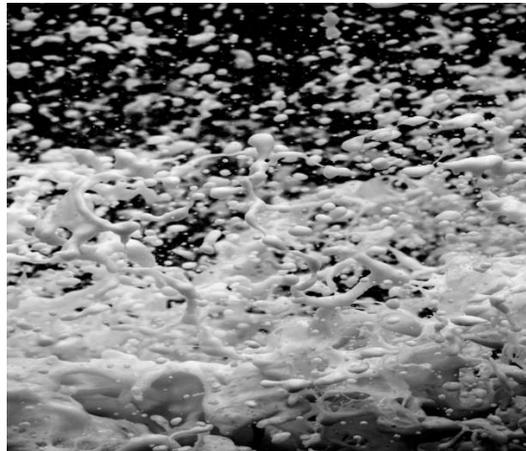
Procedure:

- Give out the materials
- Explorers can start with a water bottle (or cup) and tell them to carefully pour $\frac{1}{2}$ a cup of hydrogen peroxide into it with the help of a funnel
- Place this bottle on the large tray (This will help keep the mess to a minimum)
- Add roughly 10 drops of desired food coloring (optional)
- Add 1 tablespoon of liquid dish soap
- Swirl bottle (or cup) around to mix ingredients together



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- Now, have explorers use a separate cup to combine 3 tbs warm water and 1 tbs of dry yeast together (Stir for roughly 30 seconds)
- Select one child to pour the mixture of water and yeast into the bottle and have everyone take one step back
- Have explorers observe the reaction



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