



Incrediworld Science Day 5 – Dino Day: Behemoth!

Key Truth:

God is great and God is good!

Supply List: Dinosaur (Elephant) Toothpaste

- Clear glass cup OR glass beaker OR empty 2-liter soda bottle
- Large dish pan, cake pan, or aluminum roasting pan to catch foam
- Kitchen gloves
- Safety goggles & a lab coat or apron to protect clothes
- Dry yeast
(Catalase is an enzyme produced by activated yeast and is the catalyst for this reaction. A catalyst is a substance that aids or speeds up a chemical reaction without being consumed in the process.)
- Small bowl to mix yeast in
- Warm water
- Hydrogen peroxide
[You can use the 3% version that is found in most grocery/drug stores, but the reaction will be faster and more impressive if you use the higher concentrations of 6% or 12% hydrogen peroxide that can be found at most beauty supply stores. Look for V20 (6% Hydrogen Peroxide) or V40 (12% Hydrogen Peroxide) hair developer. If you get hair developer from the beauty supply store, make sure to get the clear version, not the cream, or the demonstration will not work.]
- Food coloring (optional – about 10 drops)
- Dish soap (about 1 TBL)
- Funnel

IMPORTANT SAFETY INFORMATION

It is important that adults help children with this experiment as the stronger concentrations of hydrogen peroxide can irritate skin and eyes. As with all science experiments, safety is the first priority. So, make sure that you wear something to protect clothing and wear safety glasses and protective gloves.

Also, the chemical reaction involved in this experiment is an exothermic one meaning that it generates or gives off heat. If you use the 3% hydrogen peroxide, you can touch the foam that is created afterwards. If you use the 6% or 12% hydrogen peroxide, you can touch the foam with gloves after you have given it a few minutes to cool down. Still, use gloves to touch it as the foam may still contain some hydrogen peroxide that has not been broken down.

One final note. If you use a 2-liter soda bottle to perform the reaction in or if you use the higher concentrations of hydrogen peroxide, you may want to do this demonstration outside since the funneled top could cause the foam to shoot out of the top about a foot in the air. Regardless of where you do the experiment, it is messy since there is a lot of spillover foam. Make sure that surfaces are protected or that you put your bottle in some kind of large pan to catch all the foam that is created!

For Further Study Read:
Job 40:15-24
Psalm 86:10, Psalm 100:5
Psalm 104:1, Psalm 107:1

Sources:

The Sci Guys: Science at Home – SE2 – EP13: Elephant Toothpaste

<https://www.youtube.com/watch?v=-RRTnIGr6fg>

Amazing Science: How to Make Elephant Toothpaste by Babble Dabble Do

<https://www.youtube.com/watch?v=cvm9UUaY-sE>

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