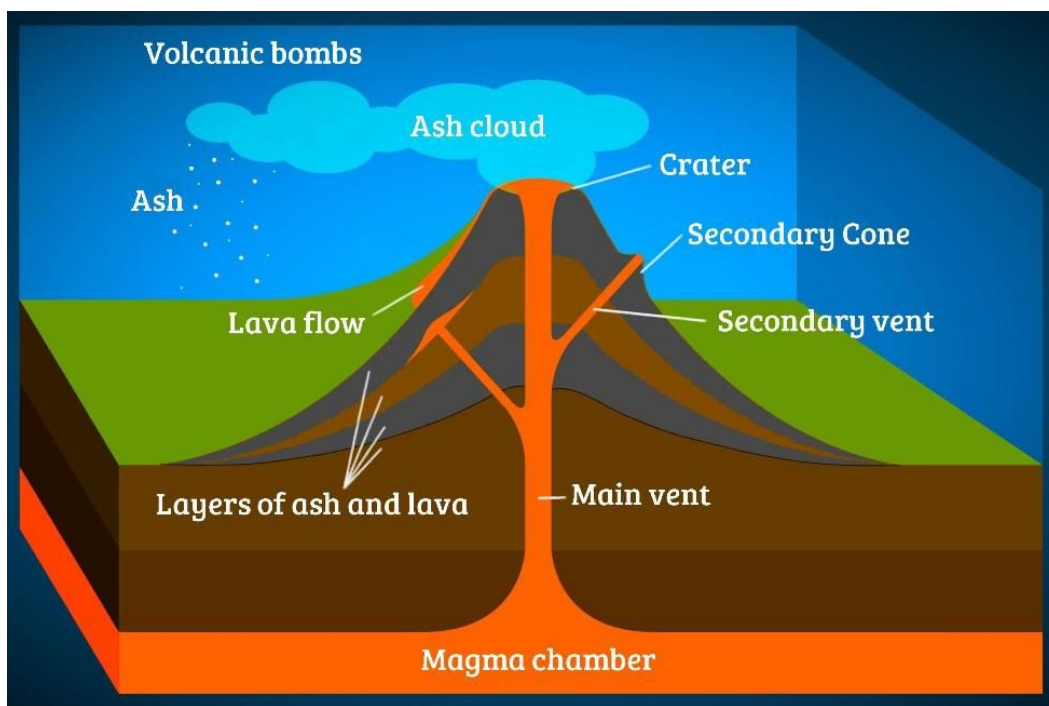




# VOLCANOES

A **volcano** is a mountain with a crater down the middle that opens downward into a chamber that has a pool of magma. **Magma** is molten (hot, liquid) rock. When the magma rises to the surface and pressure builds, the volcano will erupt! Once the magma comes out of the volcano, it is called **lava**.

There are two main types of eruptions: *effusive* and *explosive*. An **effusive** eruption happens when magma bubbles up and flows down the side of the volcano as lava. An **explosive** eruption is when magma, ash, gas, and debris are violently thrown from the volcano. Explosive eruptions cause landslides, ash clouds, as well as damage and destruction to everything in its path for miles.





# What Happened to the Dinosaurs?

When we think about dinosaurs, we tend to also think about volcanoes.

There are several theories about what caused the extinction of the dinosaurs, but the most popular theory is that a massive asteroid hit the Earth near Mexico 66 million years ago and sent the planet into complete chaos.

The impact caused tsunamis, immense heat waves, fast moving clouds of ash, earthquakes, wildfires, and volcanic eruptions. The impact triggered a chain of explosive eruptions that covered the skies in a thick layer of ash and debris which led to the mass extinction of all the dinosaurs, as well as most of the other living organisms on Earth.

## VOLCANIC ERUPTION

There are several different ways to create your very own volcanic eruption at home! Which will you choose?



# 1

## THE CLASSIC VOLCANO

*Clay, Baking Soda, Vinegar, Red Food Dye*

Use modeling clay or Play-Doh to create a volcano with a crater down the center. You can also use a cup and mold the clay around it. Add a few teaspoons of baking soda into the crater. Dye vinegar red and pour a cap full into the crater. Behold, an instant eruption!



# 2

## THE LEGO VOLCANO

*LEGOs, Baking Soda, Vinegar, Red Food Dye*

Use LEGOs to build a volcano around a small cup. Add a few teaspoons of baking soda into the crater. Dye vinegar red and pour a cap full into the crater. Get ready for an instant eruption!

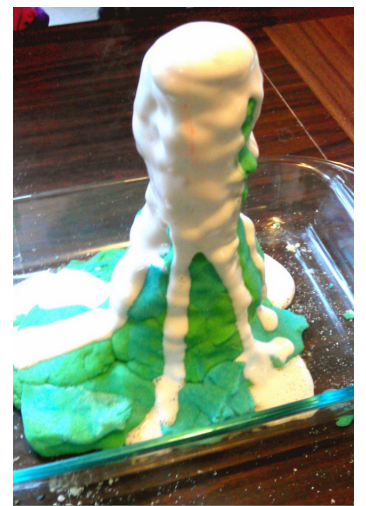


# 3

## THE EFFUSIVE VOLCANO

*Clay, Hydrogen Peroxide, Yeast, Water, Dish Soap, Red/Yellow*

Use clay to build volcano around a tall glass or bottle. In a separate bowl, mix 2 tablespoons of warm water with 1 teaspoon of yeast. Let sit until it begins to foam. Pour 1/2 cup of hydrogen peroxide into the volcano. Add a big squirt of dish soap and some red and yellow food dye. When the yeast is ready, pour into the volcano and enjoy the oozing, foaming eruption!



# 4

## THE EXPLOSIVE VOLCANO

*Diet Coke, Mentos*

Use modeling clay, Play-Doh, LEGOS, or other building materials to create a volcano around a 1 Liter bottle of Diet Coke. Quickly drop a few Mentos candy pieces into the bottle and stand back! This volcano is sure to delight with its explosive eruption!



# 5

## THE NATURAL VOLCANO

*Sand or Dirt, Baking Soda, Vinegar, Red Food Dye*

Take to the outdoors and create a volcano using natural materials! Dirt, mud, sand, rocks - you name it! Construct your volcano around a water bottle, finish the scene with dinosaur figurines, and then add a few teaspoons of baking soda into the crater. Dye vinegar red and pour a cap full into the crater. Get ready for an instant eruption!

