

## Baking Soda Experiments for Kids

Children love **science experiments** and indeed that's just the perfect way to keep your little scientists busy while building their sense of wonder. And when it comes to **baking soda experiments** for kids, the list is really entertaining!

The fizz, the bubbles, the eruption and that excitement of watching a chemical reaction — while [following child safety rules](#) — in front of your eyes is nothing short of exhilarating.

(Check out the [Screaming Cup science experiment](#) we wrote about some time ago.)

And that's why all baking soda experiments are a big hit with children across age groups.

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Now before we get started on this amazing list of cool stuff to make with baking soda, here is a little bit of a science behind the lovely chemical reaction all experiments use.

### **The Science Behind Baking Soda Eruptions**

Baking Soda, chemically speaking, is a base. When mixed with an acid like vinegar, the two react to create a rather spectacular show of erupting carbon dioxide.

Though water is also a by-product of the reaction, it presents a far less impressive show than bubbling carbon dioxide, which is a gas.

Technically, this is what happens:

***Sodium Bicarbonate + Acetic Acid -> Sodium Acetate + Carbon Dioxide + Water***

***C<sub>2</sub>H<sub>4</sub>O<sub>2</sub> + NaHCO<sub>3</sub> -> NaC<sub>2</sub>H<sub>3</sub>O<sub>2</sub> + CO<sub>2</sub> + H<sub>2</sub>O***

The above acetic acid and sodium bicarbonate equation explains the science behind baking soda and vinegar reaction. Now that you understand what is going on here, let's dive in straight to the list of insanely cool things to make with baking soda.

## Fun & Easy Baking Soda Experiments for Kids

### Erupting Volcano

This is one of our all time favourites and we have done it almost a zillion times with kids. It is a great [science experiment for kids](#) to team up with geology units.

Besides baking soda and vinegar, you would need:

- Dish soap
- Orange food colouring
- Old plastic bottle
- Plaster of Paris/ Play dough

Step 1: Take an old plastic bottle and cover it with play dough or plaster of paris to give it an appearance of a mountain. Let it dry!

Step 2: Mix food colouring and dish soap with vinegar. Keep it aside!

Step 3: For the final part, add handful of baking soda into your volcanic mountain.

Step 4: Pour the vinegar, dish soap and colouring solution into the bottle to see your very own erupting volcano.

## Acid Scientists

Since we are engaging in [fun STEM activities](#), why not turn your kids into little scientists! The task at hand is to find out which all liquids are acidic out of the given liquids.

Tell your kids that they don't have litmus paper (indicator strips) but they can raid your pantry. Here is how to go through this scientific exploration.

You will need:

- Oil
- Lemon Juice
- Glycerin
- Orange juice
- Ice cube tray
- Baking soda
- Pipettes
- Paper & pencil

Step 1: Add 1tsp baking soda in ice-cube tray slots.



Step 2: Test the liquid by adding few drops from it, using pipette, to baking soda.



Note down the liquids, which reacted and which did not. The ones that reacted with baking soda are acidic in nature.

## 6. Baking Soda Powered Car

Notch up the fun by clubbing this amazing engineering project for kids with baking soda & vinegar experiment to make a baking soda powered car.

## Make Fizzy Paint



Another cool thing to make with baking soda is fizzy paint.

Step 1: Mix equal parts of baking soda and water.

Step 2: Add food colouring to the mixture to make fizzy paint.

Step 3: Using a brush, paint a picture on a sheet with the fizzy paint.

Step 4: Using a pipette, add vinegar to the painting to watch it fizz.

Viola! Your painting is fizzing! Let the art work dry before you put it for display.