

# curious minds

Ages 3 and up  
with adult  
supervision



## Lemon experiment - create a volcano

An experiment to do with children, especially if you have some forgotten lemons in the fridge! This is a great alternative to the classic volcano activity and opens up a new avenue of sensory exploration.

### Learning benefit/skill development

- Offers a hands-on learning experience
- Explores cause and effect
- Develops and understanding of senses - smell, taste, touch, and sight.
- Enhances observation skills
- Introduces new vocabulary such as carbon dioxide, chemical reaction and acidic.
- Develops problem solving capabilities

### What you'll need

- A melamine platter – white works well as a background for the food colouring
- 2 Lemons
- A spoon
- A fork/craft stick
- Baking soda in a small bowl
- Food colouring – red and blue

### Instructions

1. Roll the lemon between your hands to break up some of the lemon pulp.

2. Cut off the bottoms of the lemon so it sits flat on the plate.
3. Cut the lemon in half and place it on a tray.
4. Use the tops to squeeze the juice over the bottom halves.
5. If needed to release more juice, poke with a fork/craft stick .
6. Add food colouring to each bottom half.
7. Add baking soda on lemon tops – notice the small bubbles.
8. Squeeze the lemon juice over the bottom half.
9. Observe the 'volcano' erupt – add more baking soda to prolong 'eruption'.

### Why does it happen?

When a base (baking soda) and acid (lemon juice) are mixed, carbon dioxide is formed causing the bubbling (chemical) reaction.

### Tips:

Engage in questions with children:

- What does the lemon smell and taste like?
- What happened when you added baking soda to the lemon?