



Presented by

**BASF**  
We create chemistry

## WHAT YOU WILL NEED:

- 1 liter water bottle
- Ketchup packet
- Mayo (or other food) packets
- Salt
- Safety goggles
- Safety gloves
- Adult supervision



# HOW TO MAKE MAGIC KETCHUP

## Overview and objective:

Students will discover how to make a ketchup packet sink and float in water on command.

## How does it work?

This experiment demonstrates buoyancy and density. There's a small bubble inside the ketchup packet. When we squeeze the bottle, we put pressure on the packet. It causes the bubble to get smaller and make the packet more dense than the water around it. The result? The packet sinks.

## Procedure:

- 1.Fill the bottle with water. Add a ketchup packet. If the ketchup packet floats, you're all set. If it sinks, add about three tablespoons of salt and shake it. Continue adding salt until the packet barely floats to the top.
- 2.squeeze the bottle. The diving ketchup should sink when you squeeze and float back up when you release your pressure.
- 3.Once the balloon is on securely, dump the salt in and watch the balloon grow!
4. The salt makes the carbonated drink bubble quickly, filling the balloon.

## Questions:

- Experiment with different food packets like mayo or mustard.
- Do you have to squeeze harder to get it to sink?
- What about using cold versus warm water?

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