

Get ready for a bubbly and exciting experiment called Bubbling Yeast! In this experiment, we'll use something called yeast, a tiny living thing that loves to eat sugar! We'll mix yeast with warm water and sugar in a bottle and watch it work its magic.



Materials

- Dry yeast
- Warm water
- Sugar
- Clear plastic water bottle
- Balloon

Science Behind the Experiment

The Bubbling Yeast experiment showcases the process of fermentation. Yeast, a tiny living organism, consumes the sugar in warm water as its food source. During this process, the yeast undergoes fermentation, converting the sugar into carbon dioxide gas and alcohol. The carbon dioxide gas produced by the yeast gets trapped in the bottle, causing the balloon to inflate. This experiment demonstrates how living organisms like yeast can create chemical reactions and produce gases like carbon dioxide through the process of fermentation.

Step 1: Gather Materials

Collect all the materials you'll need for the experiment. You'll need dry yeast, warm water, sugar, a clear bottle, and a balloon.

Step 2: Mix the ingredients

In the clear bottle, mix the dry yeast with warm water. Add a spoonful of sugar to the mixture and give it a gentle stir to dissolve the sugar. Then, quickly stretch the mouth of the balloon over the bottle's opening to seal it.

Step 3: Observe and Wait

Place the bottle in a warm spot and wait for a little while. Watch closely as the yeast consumes the sugar and starts producing carbon dioxide gas.

Step 4: Watch the balloon inflate

As the yeast works its magic, you'll notice the balloon starting to inflate! The carbon dioxide gas produced by the yeast fills the balloon, showing us how fermentation works.