



Presented by

BASF
We create chemistry

BLOW UP A BALLOON WITH YEAST

Overview and objective:

Students will learn about the gas released by yeast, a living microorganism.

Yeast is a living microorganism. When mixed with a warm moist environment, it becomes active. Yeast needs energy to remain active (like people!). When mixed with sugar, yeast converts the carbohydrate to **carbon dioxide**, a gas, that expands inside the enclosed container.

<https://en.wikipedia.org/wiki/Yeast>

WHAT YOU WILL NEED:

- Packet of rapid rise yeast
- A clean and clear plastic bottle
- A teaspoon (t) of sugar
- Warm water
- A small balloon



Procedure:

1. Fill your clean bottle with about an inch of warm water.
2. Add the packet of yeast and swirl the bottle gently for a few seconds.
3. Add sugar swirl again gently to mix.
4. Blow up your balloon a couple of time to stretch it out.
5. Put the balloon over the neck of the bottle.
6. Let it sit. (about 20 minutes)
7. Watch it and time how long it takes for the balloon to 'stand.'

What happens if:

1. You repeat the process using a smaller (or larger) bottle?
2. Repeat the process using a different temperature water? Try both hot and cool water.
3. You repeat the process using varied amounts of yeast, water, and/or sugar?

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