



MICROBIOLOGY

What is Yeast?

Yeast is a single-celled eukaryotic micro-organism, similar to human cells, that are part of the **fungus** kingdom. So in short, yeast is a fungus.

They are very small microorganisms and there are many different kinds of yeast, some grown for food and some that grow naturally throughout the world, in soil and on plants.

Yeast is used to make **bread rise** due to its ability to produce CO₂, which is made when **sugar** is fermented by yeast. This fermentation process that yeast goes through is incredibly important to create bread, alcohol, and pickled goods.

WHICH FOOD DOES YEAST LIKE BEST?

Materials:

- 2 tbsp of each of the 6 types sweeteners:
 - white sugar
 - raw sugar
 - brown/dark brown sugar
 - rice malt syrup
 - honey
 - artificial sweeteners (stevia and natvia)
- 8 tbsp of active dry yeast
- Warm water
- 9 empty 500ml plastic bottles
- 9 balloons
- Permanent marker

Activity:

1. Label each bottle with what it will contain:
 - a. white sugar
 - b. raw sugar
 - c. brown/dark brown sugar
 - d. rice malt syrup
 - e. honey
 - f. artificial sweeteners (stevia and natvia)
 - g. water only
 - h. yeast only
 - i. yeast and water only
2. Add 1 tablespoon of yeast to the correctly labelled bottles.
3. Add 1 tablespoon of each sweetener to each corresponding bottle.
4. Adds 20-30ml of warm water to each bottle.
5. Place the cap on the bottle and shake vigorously.



6. Remove cap and then attach a balloon to the neck of each bottle to catch the CO₂.
7. Wait 20-30 minutes for results to show.
8. Notice the results and decide which sweetener has produced the most CO₂? Hint: the largest balloon will be the winner which also means that it's the sugar the yeast likes best!