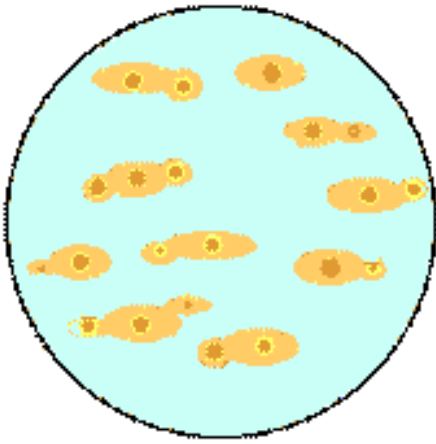


Yeast and Balloons

A Hands On Activity

Yeasts are unicellular organisms. They reproduce by budding, and can be activated in the classroom.



Materials

An empty plastic bottle	Package of Yeast	Sugar
Small funnel (optional)	Warm water	Balloon

Procedure:

Put some lukewarm water in the bottle.

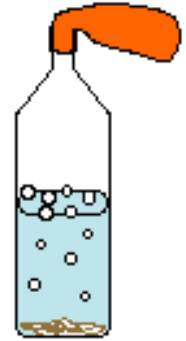
Add several spoons full of sugar. A funnel can be helpful here.

Put the cap on the bottle. Shake the bottle to dissolve the sugar.

Open the bottle and sprinkle some of the yeast onto the surface of the water.

Put the opening of the balloon over the mouth of the bottle. Pull the stem part of the balloon down so that it will not come off easily.

Wait. As the yeast starts to work, it will release carbon dioxide. What will happen to the balloon?



Notes:

Yeast grows quickly in water that feels a little warm. Wrap the bottle with a towel to help keep the heat in.

Every now and then, unwrap the bottle and look for bubbles of carbon dioxide coming up from the dividing yeast cells.

Experiment with amounts of water and sugar to see how to get quick results with this project!

As the yeast works, it will break down the sugar. About 45% of the sugar is broken down into carbon dioxide. The rest is turned into alcohol. The yeast cells will grow and bud, producing daughter cells. Yeast will stop growing when it has used up the sugar or when the alcohol level reaches about 14 % of the liquid.

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