

Microbe Magic Experiments

<http://microbemagic.ucc.ie>

All about microbes – Watch a fungus at its dinner time!

Yeast is a type of fungus and like mushrooms, you can eat it without any difficulty. Yeast is mainly used in the making of bread and the brewing industry. Yeasts are very small, they only have one cell and they can't make their own food. Feed yeast in this simple experiment and see it in action!

What you will need

Paper

Pencil

Two sachets of yeast (this is easy to find in the supermarket)

Four small bowls

A mug

Two mugs worth of warm water (ask an adult to help – it needs to be about the same temperature as your body – about 37°C)

A teaspoon of sugar

What to do:

- Open the sachets of yeast and mix them together.
- Divide the paper into four and make four labels; warm water and sugar; cold water and sugar; sugar; control.
- Divide the yeast between four small bowls and place a label on each bowl.
- Add a mug of warmed water to the bowl labelled 'warm water and sugar'.
- Add a mug of cold water to the bowl labelled 'cold water and sugar'.
- Add a mug of warmed water and a teaspoon of sugar to the bowl labelled 'warm water and sugar'.
- Add a mug of cold water and a teaspoon of sugar to the bowl labelled 'cold water and sugar'.
- Add a teaspoon of sugar to the bowl labelled 'sugar'.
- Wait about 15 – 20 minutes and then look closely at the bowls.

What's happening?

Can you see bubbles in one of the bowls? This is the yeast feeding on the sugar you have given it! The bubbles are carbon dioxide that is produced when the yeast eats the sugar.

Why don't you see bubbles in the other bowls? Yeast needs warm water *and* sugar to feed. So, you won't see bubbles in the bowl with sugar and cold water, or just sugar or the control, which has neither sugar nor warm water!