# Yeast Races (30 mins)

This activity is featured in the pack for KS2. It highlights beneficial microbes that we use in the food industry. It involves using the useful fungus yeast to explain how bread dough rises through the process of fermentation. The yeast eats the sugars present in food and produces acids. These acids change the taste, smell, and form of the food.

## Before you begin you will need:

* Background and lesson plans from the “Useful microbes” lesson in the [KS2 pack](http://www.e-bug.eu/en-gb/ks2-useful-microbes)
* Copies of worksheets or handouts for each participant
* Flour, sugar, and dried yeast
* Tall glasses, graduated cylinders, or plastic cups
* Tape and marking pen for labelling

## Use the introduction in the lesson plan or discussion section to review the following:

* How there are useful and harmful microbes.
* That microbes can help us digest food or turn it into other forms we enjoy such as yogurt, cheese, and butter.
* That yeast is a fungus that eats sugars and produces acid and gas. This causes our bread to rise and changes its taste.

## Use the following steps as a guide to implement this activity

* Prior to starting the activity make up a liquid yeast solution as outlined on the yeast packaging, with water and dried yeast. This may vary between different brands. If made too far in advance the yeast will start to ferment. NB: Do not add sugar until stated in the main activity.
* Divide the participants into groups and have each group label two cups A and B and put four dessert spoons of flour into each cup.
* Add the yeast solution to cup A and mix until it is the consistency of a thick milkshake. Do the same for cup B but use the yeast solution with sugar added.
* Pour 30 ml of the contents into the corresponding A and B graduated cylinder (or tall class with 30ml marking).
* Place both cylinders/glasses into a basin of hot water and use student worksheet 1 record the height of the dough every 5 minutes.

Use the plenary questions or discussion section to check understanding of the participants after

the activity is completed.