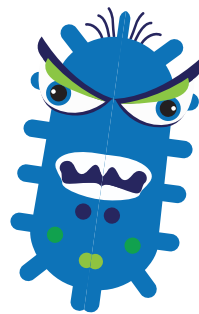


Introduction

Yeast are also tiny but they are about 10 times bigger than bacteria and very easy to see under a microscope. Yeasts are also used to make foods and drinks like bread, wine and beer. Sourdough is a type of bread that can only be made if bacteria and yeast work together. We need the yeast to eat the flour and produce gas which will put air into your bread and make it rise.

We need the bacteria to eat the bread flour and to produce lots of special



chemicals to give the bread a slightly sour taste. When you buy whole wheat flour the bacteria and yeast are already there, but they can't grow. In a way, it is like they are sleeping. To wake them up we need to give them water and a warm place to start eating the flour. When we do this over the course of a week, the microbes will grow and multiply. At the end of the week, you will have so many that you can make sourdough bread.



Microorganisms are tiny living beings that are too small for us to see. They live everywhere, in the ground, the oceans, in our food, even on you. Your body is full of good microorganisms that keep you healthy. There are many different types of microorganisms but now we will talk about two types, bacteria and yeasts. Bacteria are tiny. They are so small that it is even difficult to see them with a microscope.

They are used to make lots of food that we eat, such as yoghurt and cheese.

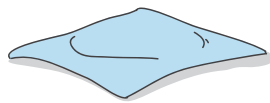
Yeast are also tiny but they are about 10 times bigger than bacteria and very easy to see under a microscope. Yeasts are also used to make foods and drinks like bread, wine and beer.

YOU WILL NEED

1



2



3



4



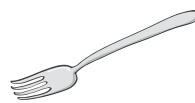
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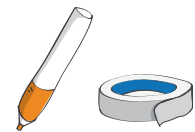
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8



1. 2 clean one litre jars (like a mason jar).
2. Some clean fabric to cover your jar.
3. String or elastic band to adjust the fabric on top of the jars.
4. Whole wheat flour.

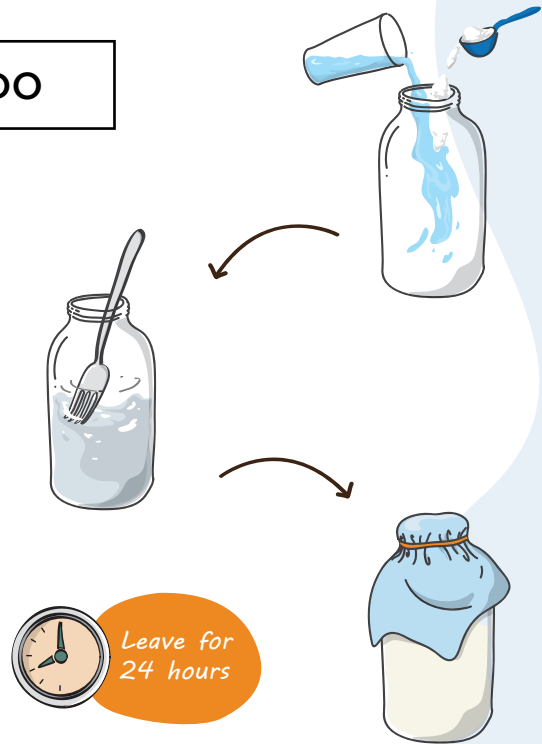
5. Water.
6. A fork.
7. A marker pen or piece of tape to mark the side of your jars.
8. A measuring cup.

WHAT TO DO

Day 1

Setting Up

Take your container and add half a cup of water and a heaped cup of flour. Mix with a fork until all the lumps of flour have gone. Cover the container with a piece of clean fabric. Make sure that the fabric won't fall by using a piece of string or an elastic band.



WRITE YOUR ANSWER:

What does it look like?

How much has it risen?

Day 2

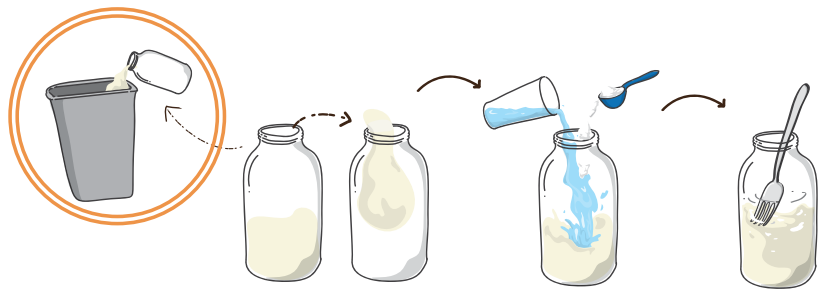
Feeding

How to feed your starter:

Take your starter and remove half a cup which you can then add to a new, clean container.

In the new container, add half a cup of water and a heaped cup of flour to your starter.

Mix well and store in a warm place. You can throw away the rest of the starter.



This is how to feed your starter. Do this every time you need to feed your starter in these instructions.

Day 3

Feeding twice per day

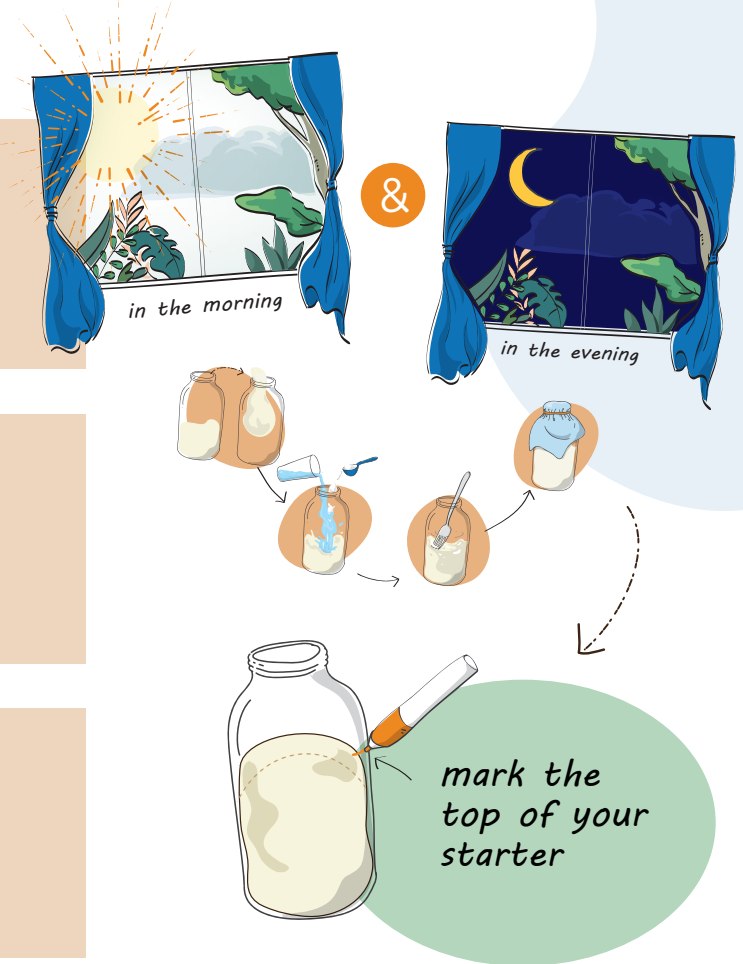
Feed your starter in the morning and in the evening.

When you feed in the morning, mark the top of your starter with a pen or a piece of tape. In the evening, measure how much the starter has risen and describe how it looks and smells.

What does it smell like?

What does it look like?

How much has it risen?



Day 4

Feed your starter in the morning and in the evening.

In the evening, measure how much the starter has risen and describe how it looks and smells.

What does it smell like?

What does it look like?

What much has it risen?

Day 5

Feed your starter in the morning and in the evening. _____

In the evening, measure how much the starter has risen and describe how it looks and smells.

What does it smell like?

What does it look like?

How much has it risen?



Day 6

Feed your starter in the morning and in the evening. _____

In the evening, measure how much the starter has risen and describe how it looks and smells.

What does it smell like?

What does it look like?

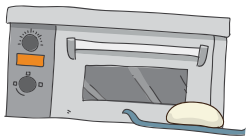
How much has it risen?

Are you ready to bake?

- Did the starter double in size?



- Does the starter float when you drop a spoonful in a glass of water?



- If the answer to these two questions is yes, then you are ready to bake!
- Look for sourdough bread recipes online. Here is one to get you started.
- If you answered no to one of these questions, then feed your starter for another day before baking.

Basic sourdough recipe

(start the day before you want to bake)

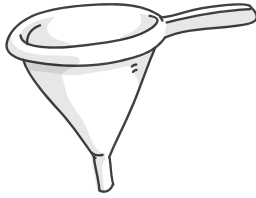


- Mix 100g of your sourdough starter with 400 ml of water.
 - Add 550 g of whole wheat flour and mix until you can't see any more dry patches of flour.
 - Leave the dough in a bowl, covered with a towel for 20 minutes.
 - Stretch the dough by grabbing the edge and folding it back over on itself. Do this between 10 and 20 times.
 - Leave the dough in a bowl covered with a tea towel for a further around 10 hours in a warm place (overnight works best).
- This gives the microbes time to do their work.
- After 10 hours, stretch the dough again and make sure it can hold its shape. If it is too loose, add more flour until it can form into a nice ball shape.
 - Leave the dough on a parchment lined tray for 1 hour.
 - Bake in a preheated oven at 250 degrees celsius for 35 minutes. The outside will be very dark.
 - Remove from the oven and let cool for 20 minutes before cutting a slice.

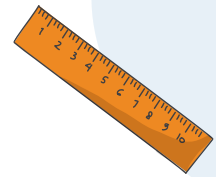


Bonus: Burping bugs

YOU WILL NEED



- A small funnel (plastic or made out of paper)
- 2 sachets of baker's yeast
 - Table sugar
- Two empty plastic bottles, anything between 330 ml and 1 litre in volume.
 - A ruler
 - A marker pen



Place the bottles on the table and measure 2 cm up the side. Make a mark with your pen.

Fill each bottle with water up to the line that you made in the previous step. Label one “sugar” and one “no sugar”.

Use the funnel to add a teaspoon of sugar to the bottle labelled “sugar” and swirl it around until you can't see the sugar grains any more.

Use the funnel to add a whole packet of yeast to each bottle and swirl round gently.

Take two balloons, blow them up and then let the air out. This will stretch the material and make the next step easier.

Put the opening of one balloon over the neck of one of the bottles, repeat for the second bottle.

Put in a warm place (by a radiator, on the window ledge or by an oven) and take a picture of the bottles.

Take pictures every 10 minutes for 1 hour and compare the results.