

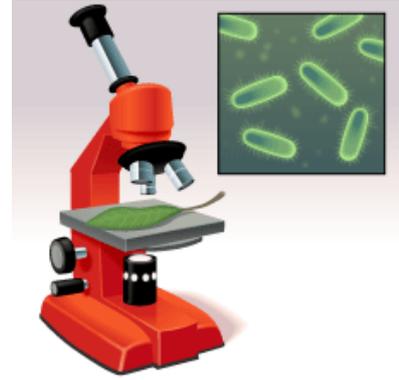
What are microorganisms?

Microorganisms are very tiny living things. They are so small that you need a microscope to see them.

Microorganisms are all around us, in the air, in our bodies and in water. Some microorganisms are harmful to us, but others are helpful to us.

There are three types of microorganism:

- viruses
- bacteria
- fungi



Harmful microorganisms.

Microorganisms that cause diseases are often called **germs**.

Some diseases, like chickenpox, are caused by **viruses**. Diseases caused by viruses usually spread easily from one person to another.



Uncooked foods (especially meat) can contain **bacteria** (Figure 1).

The bacteria are killed when the food is cooked properly. But if you eat food that has not been cooked properly, the bacteria may survive and make you feel very ill.

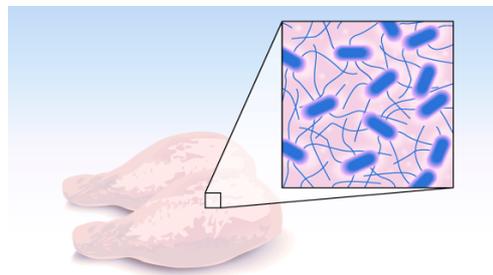


Figure 1.

Mould is a type of microorganism that grows on decaying food. It can make you ill if you eat it (Figure 2).

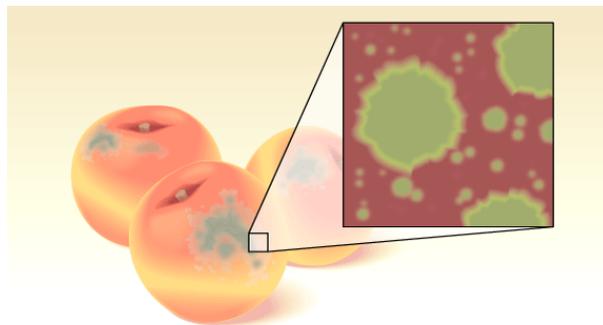


Figure 2.

How to avoid spreading harmful microorganisms

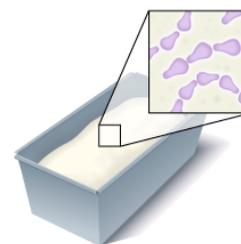
You can avoid spreading harmful microorganisms by:

- ☞ washing your hands before eating, after preparing food and after using the toilet.
- ☞ covering your mouth when you cough or sneeze.
- ☞ keeping away from other people if you have a disease that is easily spread.
- ☞ not eating food which is not fresh or has not been cooked properly.
- ☞ keeping uncooked meat separate from other foods in the fridge.

😊 Helpful microorganisms 👍

Here are some examples of **useful** microorganisms.

When bread is made, a microorganism called **yeast** is added to the dough to make the bread rise.



Yoghurt is made by boiling milk and adding special bacteria to it. The bacteria turn the sugar in the milk into acid. The acid makes the milk go thick and stops any harmful bacteria growing.



Inside a pile of dead leaves are millions of tiny bacteria. These bacteria feed on the leaves and break them down into **nutrients**. The nutrients go back into the soil where they can be used by plants.



(Source: BBC, Bitesize, Science)

MICROORGANISMS -QUIZ

1. Most microorganisms cannot be seen without a ...

- Telescope
- Periscope
- Microscope

2. Which of these is NOT true about microorganisms?

- They are all harmful
- They feed and grow
- They reproduce

3. What is yeast used for?

- To cure chickenpox
- To make bread rise
- To make yoghurt

4. Why should cooked and uncooked foods be stored separately?

- Because bacteria only like cooked food
- Because bacteria only like uncooked food
- To stop bacteria spreading from one to the other

5. Which of these microorganisms is harmful?

- Yeast
- Bacteria in yoghurt
- Fruit mould

6. Bacteria and viruses are both types of microorganisms. Which is smaller?

- Bacteria
- Viruses
- They are both the same size

7. Cleaning your teeth regularly helps prevent tooth decay because ...

- Microorganisms don't like the taste of toothpaste
- Brushing removes sugar that microorganisms like to eat
- Brushing removes all microorganisms from your mouth

8. Which of these is true?

- Microorganisms are all around us
- Microorganisms are only found in the kitchen
- All microorganisms cause illness

Key:

1a,	2a,	3b,	4c,	5c,	6b,	7b,	8a.
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