

Germs

Germs are harmful micro-organisms.

A micro-organism, or 'microbe', is a living thing that can only be seen with a microscope. They are too small to be seen with the naked eye.

There are three types of microbes that we call germs.

Bacteria, viruses and mould.

Bacteria

Bacteria live everywhere!

There are usually about a [million](#) (1 000 000) bacteria in a drop (1 millilitre) of river water.

They are different shapes. Some are spheres, some are rods and some are spirals.

There are some [pictures of bacteria here](#).

Bacteria reproduce by dividing into two. They do this very fast. Some bacteria can divide every 20 minutes.

Here is a speeded up [video of bacteria dividing](#).

Viruses

A virus is another type of germ.

Viruses are smaller than bacteria and can only live inside a host (inside your body, for example.)

A virus can only reproduce inside a host. It cannot make copies of itself.

Here are some false-coloured [images of viruses](#) as seen under a very powerful microscope.

Mould

Mould is a type of fungus that spoils food and can make you ill.

It reproduces by making tiny spores (like seeds) that are smaller than dust and blow about in the air. When they land on food, they can grow and spoil the food.

Here are some [pictures of moulds](#).

Here is a speeded up video of [strawberries going mouldy](#) and another one of a slice of [watermelon going mouldy](#) and a close-up [mould growing](#).

About the Big Numbers

1 = one

10 = ten

100 = one hundred

1 000 = one thousand

10 000 = ten thousand

100 000 = one hundred thousand

1 000 000 = one thousand thousand = one million

Each time we add 0 on the end, it makes 10x the number.

$$1 \times 10 = 10$$

$$2 \times 10 = 20$$

$$3 \times 10 = 30$$

$$10 \times 10 = 100$$

$$100 \times 10 = 1\,000$$