

Science Focus: Microbes	Year Group: 6	Spring Term 2
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**Key Knowledge:**

Micro-organisms are tiny living organisms which are too small to be seen with the naked eye. They come in different shapes and sizes and are everywhere. There are three different types: viruses, bacteria and fungi.

1. **Bacteria** – These are single-celled organisms and there are three different types: spirals, rods and balls. Some can be helpful and others can be harmful and cause infections.
2. **Viruses** – These are even smaller than bacteria and can even live inside bacteria. Some viruses make us sick and can travel from person to person.
3. **Fungi** – These are multi-cellular organisms. These are the largest type and can be found in the air, in water and on plants.

One of the main ways in which microbes are beneficial is in the food industry. Cheese, bread, yoghurt, chocolate, vinegar and alcohol are all produced through the growth of microbes.

Other microbes are harmful and can cause diseases to humans and it is important that we practice hygiene in order to keep ourselves safe. When harmful bacteria enter our bodies, they can produce harmful substances called toxins which can make us ill. Microbes can be passed from one person to another by a number of different routes: air, touch, water, food, sneezes and via animals. Washing hands, sneezing into a tissue and practicing food hygiene can be ways of protecting each other and ourselves.

**Possible Experiments:**

How far can a sneeze travel? – measuring the distance of a sneeze.

Yeast races – the use of yeast to help dough to rise. Taking measurements, recording in tables and graphs.

Hand-washing – how germs spread.

**Key Vocabulary:**

microbe – alternative name to micro-organism.

anti-biotic – medicine used to treat to prevent some types of bacterial infection.

germ – another name to describe a harmful microbe.

hygiene – a series of practices performed to preserve health.

vaccine – biological preparation which provided active acquired immunity to a particular disease.

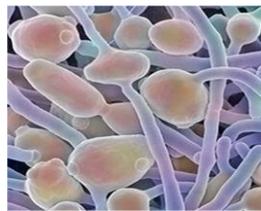
micro-organism – tiny living organisms which are too small to be seen with the naked eye.

fungi – multi-cellular organisms. They can be harmful or useful.

bacteria – single-celled organisms. Some are helpful, even necessary, others are harmful.

virus – the smallest of the microbes, generally harmful to humans. They need a host cell to survive and reproduce.

**Diagrams and Symbols:**



fungi



bacteria



virus