



## St Paul's C of E Primary School – Knowledge Organiser

Name of Topic

Classifying Living Things- Microbes

Year Group

6

### Key Vocabulary and Spellings

1	micro-organism	A living thing that you need a microscope to see
2	Edward Jenner	A scientist who found the first vaccination
3	vaccination	A way to protect your body against disease
4	fungus	A simple organism that is not a plant or animal e.g. mushroom, mould
5	virus	Tiny particles that can cause disease e.g. flu, chicken pox, measles
6	bacteria	Single celled living organism e.g. E.Coli
7	contagious	Spread from one person/ organism to another, typically by direct contact
8	fermentation	A chemical breakdown of a substance by a microbe
9	transmission	How an illness passes from one to another
10	pathogen	An microbe that causes harm

### Top 5 Topic Facts

1	Edward Jenner invented the first vaccine, which was created to treat smallpox.
2	Viruses, bacteria and fungi are the three main types of micro-organism.
3	Some bacteria is used in the food production such as lactic acid bacteria in yoghurt.
4	Yeast needs warmth and food to create carbon dioxide which helps bread rise.
5	In 1665, a disease called the bubonic plague killed approx. 100,000 people in London.

**What are Microbes?**

- Microbes are living organisms
- They are so small we need a microscope to see them
- They come in different shapes and sizes
- They are found EVERYWHERE!
- Some microbes are useful or even good for us
- Some microbes can make us ill

There are 3 different types of microbes:

**VIRUSES**

- Influenza
- There are three different types of bacteria. They look like:
- Spirals (Campylobacter)
- Rods (Lactobacillus)
- Balls (Streptococcus)
- Viruses are even smaller than bacteria and can sometimes live INSIDE bacterial
- Some viruses make us sick.
- Diseases like CHICKENPOX and the FLU are caused by viruses.
- Viruses can spread from one person to another but it depends on the type of virus.

**BACTERIA**

**FUNGI**

- Penicillium
- Dermatophyte
- Fungi are the largest of all microbes.
- Fungi can be found in the air, on plants and in water.
- Mould, which grows on bread, is a type of fungus.
- Some antibiotics are made by fungi!

**Microbe size**

They are so small that 1000s of bacteria could fit on the full stop at the end of this sentence.

Some bacteria are helpful in cooking, for example, making yogurt and cheese.

Some bacteria are harmful and cause infection.

Sugar → (yeast) → CO<sub>2</sub> + ethanol + ENERGY!

### Key Investigations/Questions

1	How are microbes similar and different to each other?
2	What factors do microbes need to survive and thrive?
3	How do microbes help us in food production?