**Microbes!**

- Microbes appeared on earth about 3.5 billion years ago.
- There are more microbes than all other animals and plants in the world.
- Some microbes live in places where nothing else can live.
- If there were no microbes, there would be no people!
- Microbes come in all shapes and sizes.

**1: Fungi**

- The giants of all microbes!
- Fungi can be good and bad — good fungi can be used to make bread (yeast) or antibiotics. Bad fungi can cause mould on bread or diseases such as athletes foot!

**2: Virus**

- Viruses are parasites — they need to live inside the cells of animals, plants and even other microbes to live!
- There are very few good viruses and most viruses make us ill!

**3: Bacteria**

- Bacteria are found EVERYWHERE including all over our bodies.
- There are three different shapes of bacteria and scientists use these shapes to help identify them:
  - Bacteria (spheres):
  - Spirals:
  - Rods (cuboids)

**Good Microbes**

- Most microbes are good for us and do **not** cause disease.
- Microbes generate at least half the oxygen we breathe.
- Microbes live on the roots of plants and help them absorb food and water.
- Microbes are responsible for creating foods such as wine, cheese, vinegar, yogurt, and chocolate!

**Bad Microbes**

- Some microbes can be harmful to humans and cause disease or illness.
- The bad microbes are known as **pathogens** but are sometimes called bugs or germs.
- Pathogens spread by close contact, coughs, sneezes, food water and animals.
- Disease causing microbes that spread from person to person are known as infectious.
- Bad microbes love it when you, your home, school or environment is unhygienic or dirty.
- Remember, microbes multiply very fast so it only takes one bad microbe to get inside your body and make you sick!
- Many of our everyday illnesses are caused by viruses e.g. ear ache, colds, flu, most coughs and sore throats!

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