

Food Hygiene & Safety

Activity: Match the statements

Cut these headings out and ask students to put each statement under the corresponding microbe. There should be 4 statements for each microbe.

Types of microbe

Bacteria
Fungi
Parasite
Virus

Bacteria

Can be harmful (cause illness) and beneficial/useful (decomposition - “recycling” of organic materials)
Multiplies in humid environments with nutrients (e.g. sugar, fat, proteins), for example in food, drains, wounds
They spread directly between people or through food, water, soil and blood
Most are killed by high temperatures and cooking



Most are not killed by freezing, and cold temperatures can reduce growth

Examples: Campylobacter and Salmonella cause foodborne illness. Lactic acid bacteria are useful bacteria used to produce yoghurt, soy sauce and chorizo sausage

Virus

The smallest type of microbe

Cannot grow or survive without a host (e.g. a human or animal)

They spread from person to person or from person to food through the air (e.g. sneezing), through vomit, faeces, or other bodily fluids (e.g. blood or saliva). Killed by cooking. They will not grow, but can survive in food.

Examples: Norovirus in oysters or soft fruits e.g strawberries.

Fungi



The largest type of microbe. Can be harmful (cause illness) and beneficial/useful (decomposition – “recycling” of organic materials)

Multiplies in environments with nutrients, e.g. in food and humid building materials

Mould is spread by spores and food can be contaminated from air. Food with visible growth of mould (e.g. leftovers, bread, jam) should not be eaten

Relatively tolerant to heat. Not killed by freezing. Cold temperatures can reduce their growth

Examples: *Aspergillus flavus* that produce aflatoxins in food (e.g. nuts). *Saccharomyces cerevisiae* (yeast) for baking and *Penicillium camemberti* for camembert and brie cheese

Parasites

Different sizes. Can be harmful.

Cannot grow without a host (e.g. a human or animal)



Can be spread between animals and humans through contaminated food, water, soil and blood

Killed by cooking and freezing. They will not grow but can survive in food

Examples: Toxoplasma can be found in meat and on vegetables, other parasites include intestinal worms (e.g. roundworm)

