

S1 Biology 2—Mighty Microbes

Knowledge I need to know by the end of this topic:

• Micro-organisms are organisms which can only be seen under a microscope.	😊 😐 😞
• Bacteria, fungi and viruses are types of micro-organisms.	😊 😐 😞
• Micro-organisms need food, water, warm temperature and a suitable pH to grow and reproduce.	😊 😐 😞
• The growth of bacteria can be controlled by antibiotics and low temperatures.	😊 😐 😞
• The growth of fungi can be controlled by antifungals and low temperatures.	😊 😐 😞
• Athlete's foot and thrush are infections caused by fungi.	😊 😐 😞
• Cholera, malaria and salmonella are infections caused by bacteria.	😊 😐 😞
• The skin is the body's first line of defence. It is a physical barrier to stop micro-organisms entering the body.	😊 😐 😞
• Mucus in the nose, throat, eyes and other parts of the body traps micro-organisms.	😊 😐 😞
• Acid in the stomach kills micro-organisms brought into the body through food.	😊 😐 😞
• Our immune system protects our body from micro-organisms that get through the first line of defence.	😊 😐 😞
• Antibodies tag micro-organisms and white blood cells destroy them.	😊 😐 😞
• Vaccines are made from 'killed' micro-organisms. They help the body to recognise a particular micro-organism so that when the body is re-infected, the immune response is much faster.	😊 😐 😞
• It is important to have vaccinations so that vulnerable people in society are protected from disease.	😊 😐 😞
• Microorganisms can be used to make useful products such as yoghurt, bread	😊 😐 😞

Skills I will work on in this topic:

- Lesson 1 — Observing (different types of microbe), Problem Solving, Expressing Views
- Lesson 2 — Equipment handling, Safety, Risk assessment (Aseptic technique)
- Lesson 3 — Observing (different hospital wards), Expressing views and problem solving (Mr Jones)
- Lesson 4 - Equipment handling, Safety, Risk assessment (Hand wash challenge)
- Lesson 5 - Calculations (Cell division)
- Lesson 6 — Literacy task (Body Defences cartoon)
- Lesson 7 — Literacy task (Vaccines video and questions)
- Lesson 8 — Equipment handling, Safety, Risk assessment (using microbes to make products)
- Lesson 9 - Literacy task (poster about making your product)
- Lesson 10— Planning/Risk Assessment, Identifying Variables
- Lesson 11— Equipment handling, Observing
- Lesson 12— Recording results, Writing a scientific report, Evaluating experiments

Complete

Evaluation of Biology 2 Mighty Microbes:

Test score (%) _____ CfE Level: _____ Target for next topic's test: _____ (%) CfE Target Level: _____

Strengths—what do you think you did well in this topic?

Areas for improvement—what do you want to focus on improving going into the next topic?