

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 1.1.5 Microscopy

Copy the questions and answers below onto flashcards and use them to test yourself.

What is a microscope?

A microscope is a device used to view things that are small, such as cells and sub-cellular structures.

What was the first type of microscope to be invented?

The first type of microscope to be invented was the light microscope.

What is magnification?

Magnification is the number of times larger the image is than the actual object.

What is resolution?

Resolution, also known as resolving power, is the ability to distinguish between close together points in an image.

How has microscope technology improved over time?

Microscope technology has improved with the invention of more powerful lenses for light microscopes, the invention of stains, and the invention of electron microscopes.

What is a stain?

A stain is a coloured chemical which can be added to a sample of cells. It binds to specific sub-cellular structures, making them easier to see.

What is an electron microscope?

An electron microscope is a microscope which uses a beam of electrons to create an image of the sample, rather than using a beam of light.

What are the advantages of electron microscopes over light microscopes?

An electron microscope has a much higher magnification and resolving power than a light microscope.

How have electron microscopes helped to advance cell biology?

Electron microscopes make it possible to view cells in much finer detail. This has enabled biologists to see and understand many more sub-cellular structures.

What is the equation linking image size, actual size and magnification?

Magnification = Image size \div Actual size