Microscopes and Cells

Learning Objective	Red	Yellow	Green	Date Completed
OB42 identify, and understand the functions of, the main parts of a microscope (light microscope only) and use it to examine an animal cell and a plant cell				
OB43 draw one example each of an animal cell and a plant cell, identifying the nucleus, cytoplasm and cell wall (plant cell), and indicate the position of the cell membrane				
OB44 prepare a slide from plant tissue and sketch the cells under magnification				

Key Points

- All living things are made up of cells.
- A cell is the smallest amount of living matter.
- A microscope is needed to see cells; lenses are used to magnify the image.

- Animal cell – Nucleus, Cell membrane, Cytoplasm and Vacuoles.
- Plant cell – Nucleus, Cell Wall, Cell membrane, Cytoplasm, Vacuole and Chloroplasts.

Differences between animal and plant cells:

Animal cells	Plant cells
No cell wall	Cell wall
No chloroplasts	Chloroplasts
Small vacuoles	Large vacuole

Tissue

A group of similar cells that have a special shared function. Eg. Skin cells, muscle cells, sperm cells…

Organ

Is made up of a number of different tissues. Eg. Brain, Heart, Liver…

System

Groups of organs working together. Eg. Digestive system, Circulatory system, Reproductive system..

Cell Division

Is the way cells divide in two to make new cells for growth.

Stain

This is a dye used to colour the cell and make it easier to see.