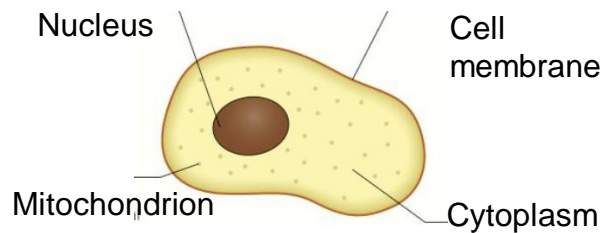
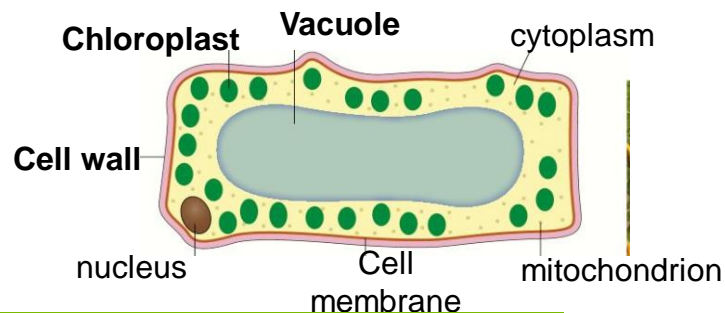


Section 1a - Plant and Animal Cells

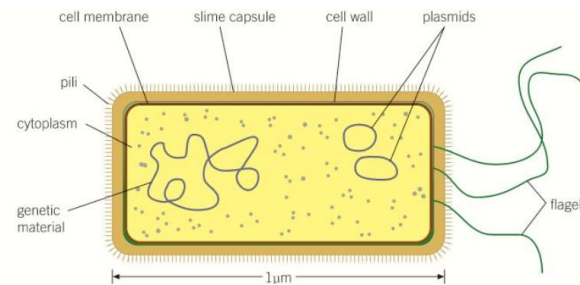


Plants and animal cells are very different, but the cells have some features in common



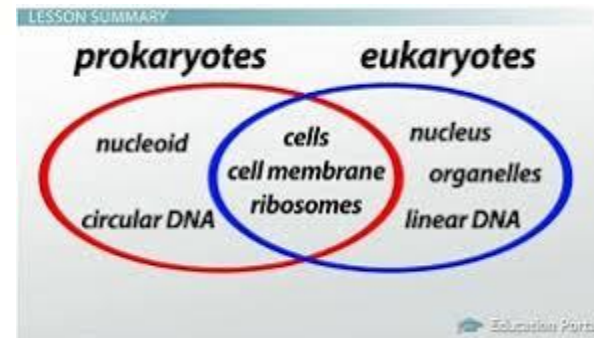
Cells are different depending on the job they do and which organisms they are in.

Section 2 – Bacterial Cells



Bacteria are the smallest living things and they are always just a single cell

Bacteria are called prokaryotes and they have some similarities and differences from plant and animals cells (eukaryotes)

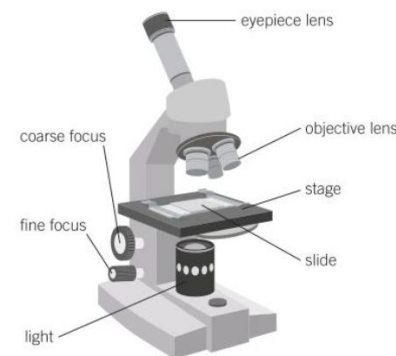


Section 1b - Plant and Animal Cells

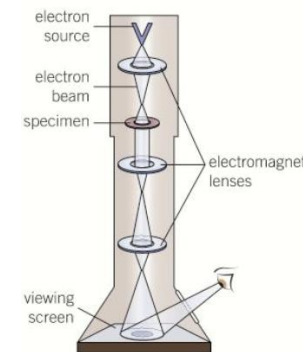
cell	smallest functional unit in an organism. Cells are the building blocks of life
cell membrane	subcellular structure that controls which substances can move into/out of the cell
cell wall	subcellular structure that surrounds the cell, providing support
chloroplast	subcellular structure where photosynthesis takes place
cytoplasm	a 'jelly-like' substance found in cells, where all the chemical reactions take place
electron microscope	a microscope which uses electrons to produce an image
eukaryotic cell	cell whose genetic material is contained within the nucleus
flagellum	a 'tail-like' structure which allows cells to move
mitochondria	subcellular structure where respiration takes place
nucleus	subcellular structure that controls the cell, and contains genetic material
plasmid	a circular ring of DNA found in a bacterial cell
prokaryotic cell	cell without a nucleus, whose genetic material is found within the cytoplasm
resolution	a measure of the smallest object which can be seen using an instrument
vacuole	subcellular structure that contains cell sap and helps to keep the cell firm

Section 3 – Light microscopy

Microscopes let us see things that are too small to see normally. Often a stain is used to make features stand out



Section 4 – Electron microscopy



Microscopes

Light

- cheap
- easy to use
- natural colours seen
- resolution up to 2µm
- live or dead specimens

Electron

- expensive
- difficult to use
- black and white images but false colour can be added
- resolution up to 0.1 nm
- only dead specimens