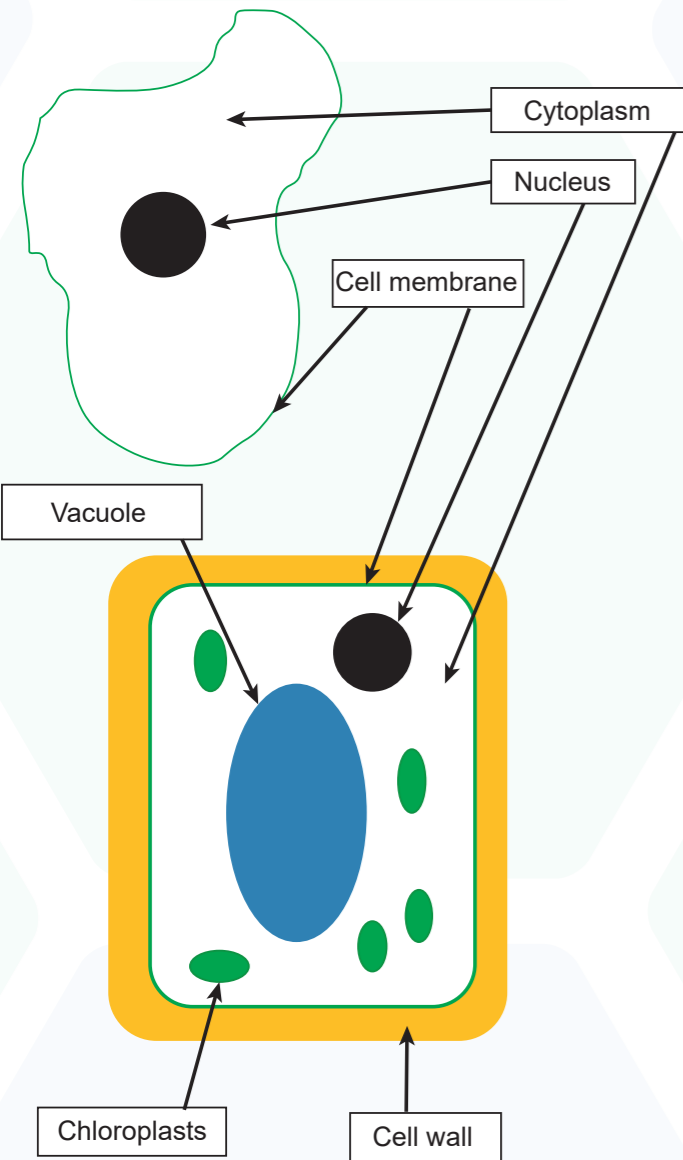


Magnification

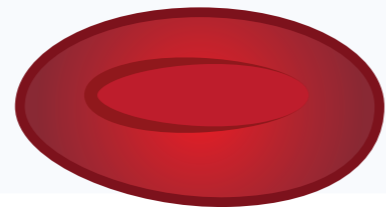
A light microscope can only be used up to a magnification of x2000. To look at things at a higher magnification and in more detail an electron microscope can be used. However, an electron microscope can only view dead material.

Animal cells and plant cells



Specialised Cells

Cells can **differentiate** into **specialised** cells. Specialised cells are **adapted** to specific functions and so are more **efficient** in carrying them out.



Red blood cells contain haemoglobin and are biconcave in shape to maximise efficiency in carrying oxygen.



Sperm cells have tails so they can swim to the egg cell.

Cell Structure	Function	Animal cells contain:	Plant cells contain:
Nucleus	Contains chromosomes which carry genetic information and controls actions of the cell.	Yes	Yes
Cell membrane	Controls the entry and exit of substances	Yes	Yes
Cytoplasm	Site of most cell reactions.	Yes	Yes
Vacuole	Contains a watery sugar solution called sap. When full the vacuole pushes the cytoplasm against the cell wall.	No	Yes
Chloroplasts	Site of photosynthesis.	No	Yes
Cell wall	Contains cellulose and provides structural support for cells.	No	Yes
Mitochondria	Site of aerobic respiration.	Yes	Yes

Organisation

Level	Description
Cells	Smallest unit of life
Tissues	A group of similar cells performing a specific function
Organs	Different tissues working together for a specific function
Organ system	Organs working together
Organism	A living thing