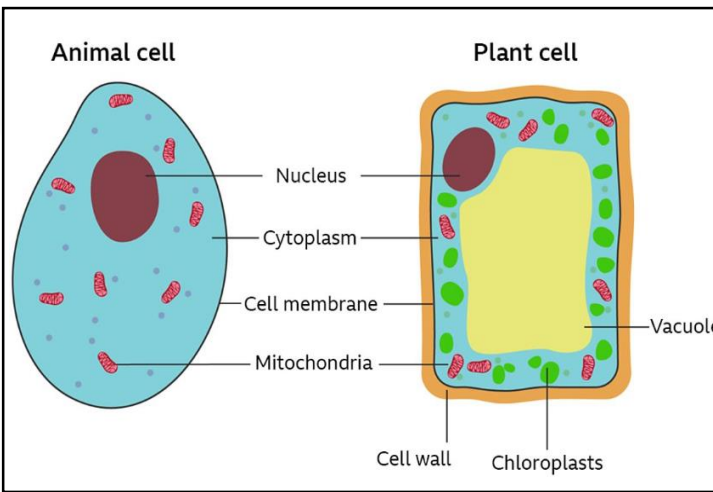


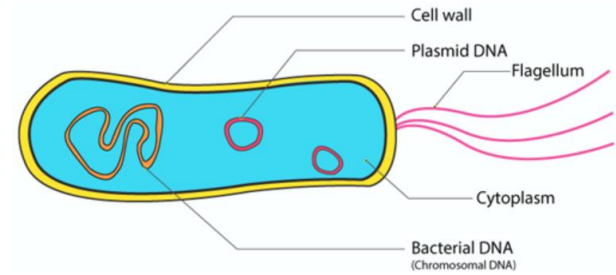
KNOWLEDGE ORGANISER
BIG IDEA: ORGANISMS
TOPIC: CELLS

Key Word	Definition
Microscope	Equipment used to view tiny objects.
Cell	Basic building blocks of living things.
Nucleus	Controls the cell and contains genetic material. Genetic information is needed to make new cells.
Cell membrane	Controls what comes in and out of a cell.
Cytoplasm	Where chemical reactions in a cell take place.
Mitochondria	Where respiration happens. Respiration transfers energy for the organism.
Cell wall	Outer layer of a plant cell that provides support and makes the cell rigid.
Vacuole	Storage of watery liquid called cell sap.
Chloroplast	Where photosynthesis happens. Contains a green substance called chlorophyll.
Diffusion	The movement of gas and liquid particles from an area of high concentration to a low concentration. An example of this is the exchange of oxygen and carbon dioxide in the lungs.



Uni-cellular organisms

Some organisms are made of only one cell. There are no tissues, organs or organ systems. These organisms have structural adaptations to help them survive.



Specialised cells are found in multicellular organisms. Each specialised cell has a particular function within the organism.

Animal or plant cell	Type of cell	Image	Function	Adaptation (Special features of plant and animals that help them survive)
Animal	Red blood cell		To carry oxygen	Large surface area for oxygen to pass through. Contains haemoglobin which joins with oxygen. Contains no nucleus.
Animal	Nerve cell		To carry nerve impulses to different parts of the body	Long. Connections at each end. Can carry electrical signals.
Plant	Root hair cell		To absorb water and minerals	Large surface area
Plant	Palisade cell		To absorb sunlight for photosynthesis	Large surface area. Lots of chloroplast.