Helston Science Department

Cells and Transport


Nerve Cells

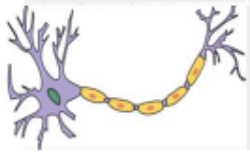

Blood Cells


Muscle Cells

LO: To be able to label and describe the functions of organelles in animal, plant and certain specialised cells.

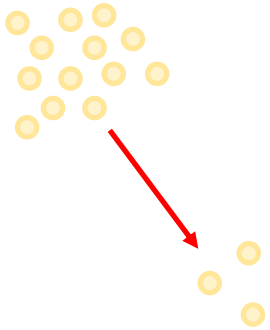
Specialised cells:

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

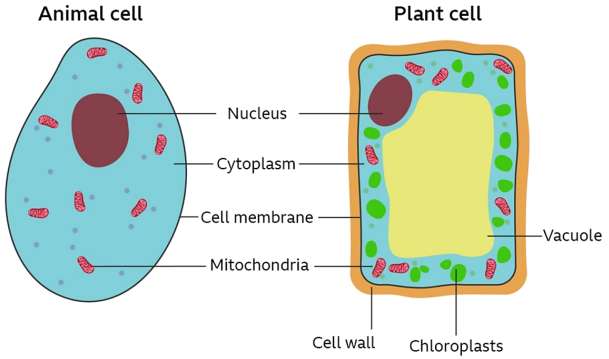
	Type of cell	Function	Special features
Animal cells	 Red blood cells	To carry oxygen	• Large surface area, for oxygen to pass through • Contains haemoglobin, which joins with oxygen • Contains no nucleus
	 Nerve cells	To carry nerve impulses to different parts of the body	• Long • Connections at each end • Can carry electrical signals
	 Male reproductive cell (sperm cell)	To reach female cell, and join with it	• Long tail for swimming • Head for getting into the female cell
Plant cells	 Root hair cell	To absorb water and minerals	• Large surface area
	 Leaf cell	To absorb sunlight for photosynthesis	• Large surface area • Lots of chloroplasts

Diffusion:

The movement of particles from a high concentration to a low concentration.



Cells: Cells are the smallest units living things are made up of and are the building blocks of life.



Unicellular Organisms: Organisms that are only made of one cell and can do every-thing they need to survive without tissues and organs.

Organelle	Definition
Cell wall	Made of cellulose, which supports the cell
Cell membrane	Controls movement of substances into and out of the cell
Cytoplasm	Jelly-like substance where chemical reactions happen
Nucleus	Contains genetic information (DNA) and controls the activities inside the cell
Vacuole	Contains cell sap which keeps the cell rigid
Mitochondria	Where respiration occurs to release energy from glucose
Chloroplast	Where photosynthesis takes place