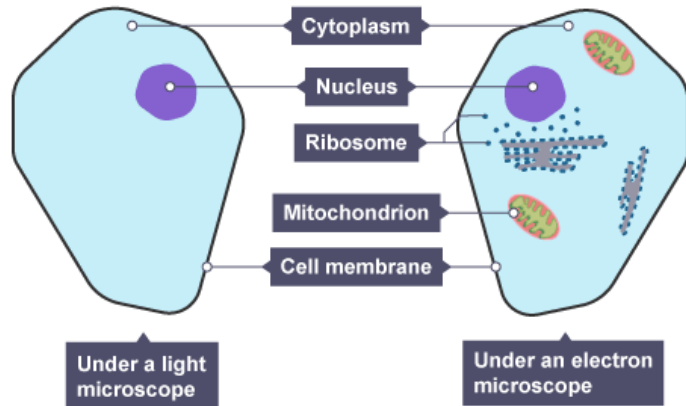


Knowledge Organiser: Y7 Animal Cells



Sub-cellular structure	Function
Nucleus	Controls the activities of the cell. It contains genetic material (DNA).
Cell Membrane	Controls the movement of substances into and out of the cell.
Cytoplasm	A jelly like substance that fills the cell, where most chemical reactions take place.
Mitochondria	The site of aerobic respiration , which releases energy for the cell.
Ribosomes	Where proteins are made (proteins are made by a process called protein synthesis).

Levels of Organisation



Cell: The smallest unit of a living organism. It contains the structures needed to carry out life processes.

Tissue: A group of **similar cells** that would together carry out a **specific function**.




Organ: A group of different tissues that work together to perform a specific function.

Organ System: A group of organs working together to form a specific functions.

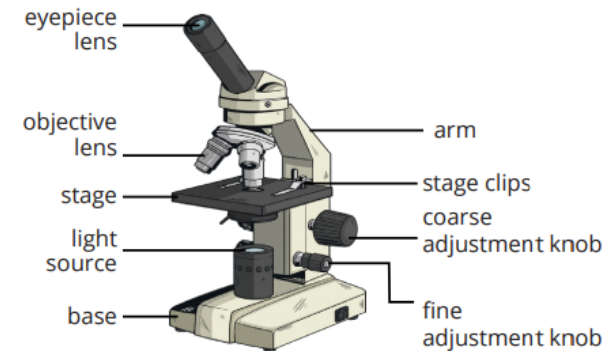
Life Processes

Movement	Growth
Respiration	Reproduction
Sensitivity	Excretion
	Nutrition

Specialised Cells

sperm cell		To travel to and fuse with an egg cell for fertilisation.	Long tail for movement to the egg and lots of mitochondria to release energy to allow the sperm to move.
muscle cell		To help the body to move.	Contains bands of protein that change shape to contract and relax the muscle. Lots of mitochondria to provide energy for muscle contraction.
nerve cell		To carry nerve impulses around the body.	Long fibres carry electrical impulses up and down the body and branching dendrites at each end connect to other nerves or muscles.

Parts of a Light Microscope



The Skeleton

- Support
- Movement
- Protection
- Making blood cells

Muscles

A pair of muscles that work together are called **antagonistic muscles**.

