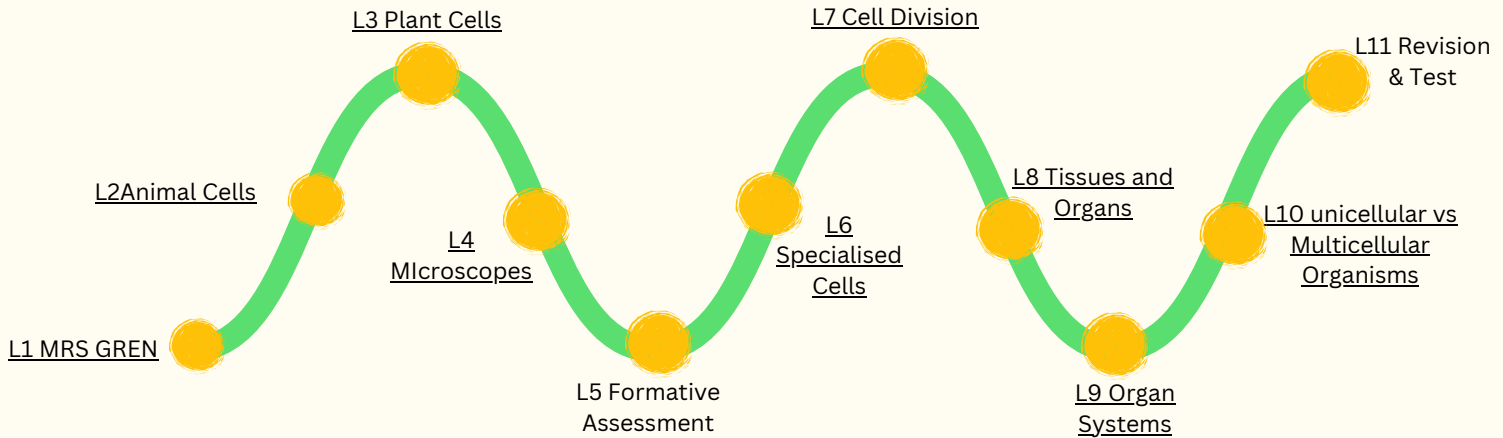


In the Cells topic at KS3, you will learn that all living things are made of cells, which are the basic building blocks of life. You will explore the structure and function of different cell types, including plant, animal, and specialised cells. You will also learn how to use microscopes to observe cells and understand processes such as cell division.



Prior learning link: KS1 & 2 - Living things and their habitats. Animals, including humans.

Key words

- **Cell** – The basic building block of all living organisms.
- **Nucleus** – The part of the cell that contains DNA and controls the cell's activities.
- **Cytoplasm** – A jelly-like substance where most of the cell's chemical reactions happen.
- **Cell membrane** – A thin layer that controls what goes in and out of the cell.
- **Cell wall** – A strong outer layer found in plant cells that supports and protects the cell.
- **Chloroplast** – The part of a plant cell that contains chlorophyll and carries out photosynthesis.
- **Vacuole** – A space in plant cells that stores sap and helps keep the cell firm.
- **Mitochondria** – The part of the cell where energy is released during respiration.
- **Organism** – A living thing made up of one or more cells.
- **Tissue** – A group of similar cells working together to do a specific job.
- **Organ** – A group of different tissues working together to perform a function.
- **Organ system** – A group of organs that work together to carry out a life process.
- **Specialised cell** – A cell that has a specific structure to perform a particular job.
- **Microscope** – An instrument used to magnify and view very small objects like cells.
- **Magnification** – How much bigger an object appears when viewed under a microscope.
- **Diffusion** – The movement of particles from an area of high concentration to low concentration.
- **Unicellular** – Made of only one cell (e.g., bacteria).
- **Multicellular** – Made of many cells (e.g., humans, plants).
- **Respiration** – A chemical reaction in cells that releases energy from glucose.
- **Cell division** – The process by which cells make new cells, usually by mitosis.

Revision Resources

[BBC KS3 Living Organisms](#)