

Year 7 Cells Knowledge Organiser

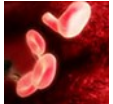
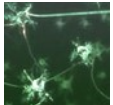
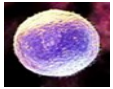


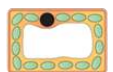
1. Keywords

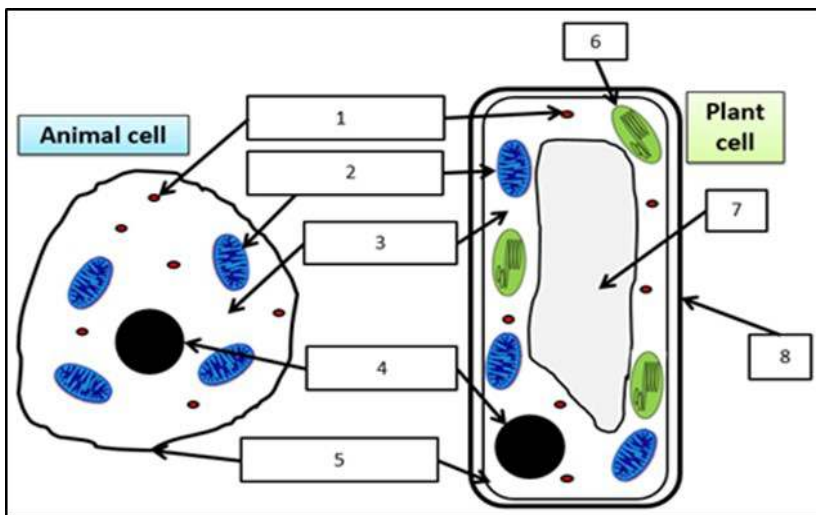
Cells:	The building blocks of all living things
Organelle	A cell structure that has a specific function
Unicellular	Simple organisms made up of just one cell
Diffusion	The random movement of a substance from an area of high concentration to an area of low concentration
Specialized Cells	Where a cell has adapted in order to carry out a specialised job
Microscope	An instrument that magnifies objects, enabling visibility of 1000 times or more than what can be seen by the naked human eye

2. Cell organelles

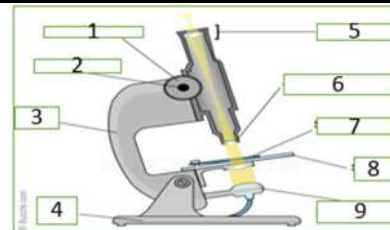
No.	Structure	Function
1	Ribosomes	Where proteins are made from amino acids
2	Mitochondria	Where respiration occurs and energy is produced
3	Cytoplasm	Where chemical reactions occur
4	Nucleus	Contains genetic material
5	Cell Membrane	Controls the movement substances into and out of the cell
Only in Plant cells		
6	Chloroplasts	Absorb light for photosynthesis
7	Vacuole	Keeps the cell turgid to support the plant
8	Cell Wall	Strengthens the cell

3. Specialised Cells

Cell	Function
	Red Blood Cells- carry oxygen
	Nerve Cells- carry nerve impulses
	Egg Cells- meet up with male sperm cells, then produce food or new cells being formed
	Sperm Cells- meet up with female egg cells
	Root Hair Cells- to absorb water and minerals
	Leaf Cells- to absorb sunlight for photosynthesis



4. The Microscope



1 Coarse Focus	4 Base	7 specimen
2 Fine focus	5 Eyepiece	8 Stage
3 Arm/spine	6 Objective	9 Light/mirror

5. Unicellular and multicellular

Cell	The structural, function and biological unit of all organisms
Tissue	Made from a group of cells with a similar structure and function, which all work together to do a particular job
Organ	Made from a group of different tissues, which all work together to do a particular job
Organ System	Made from a group of different organs, which all work together to do a particular job