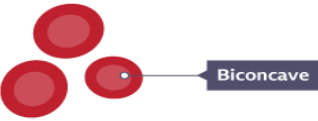
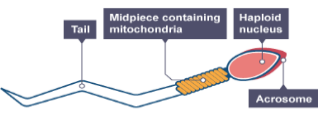
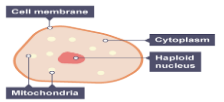
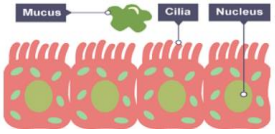

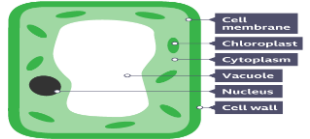


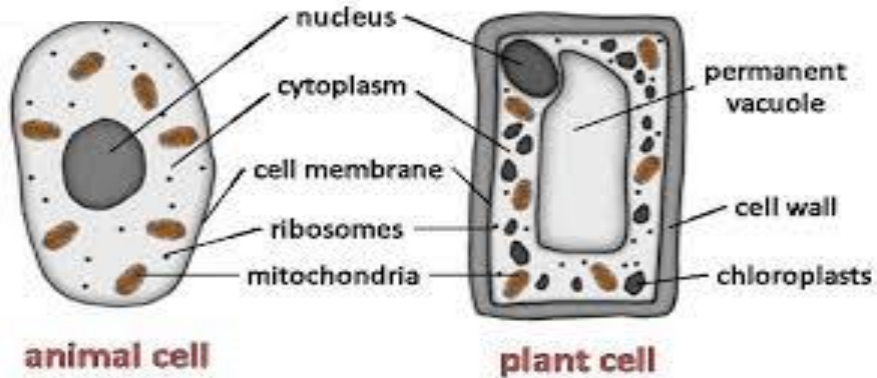
Year 7 - Cell Biology



Section B – Specialised Cells

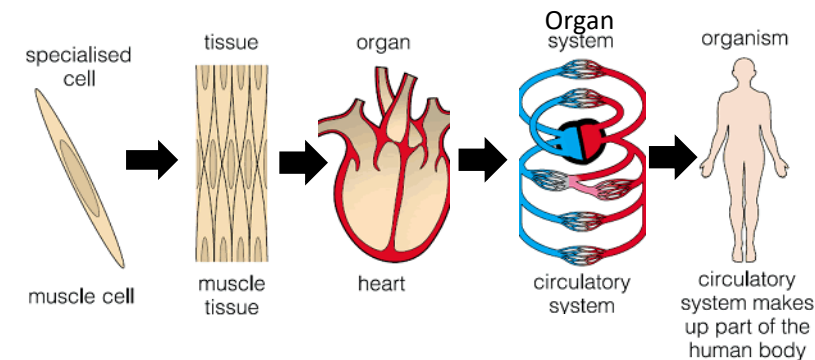
| | Specialised cell | Diagram | Function | Structure |
|----|--------------------------|---|--|---|
| 8 | Red blood cell |  | Carry oxygen around the body. | <ul style="list-style-type: none"> Biconcave shape No nucleus Contains haemoglobin |
| 9 | Sperm cell |  | Carry father's DNA to egg cell. | <ul style="list-style-type: none"> Tail to swim Lots of mitochondria Streamlined shape |
| 10 | Egg cell |  | Contains the mother's DNA. | <ul style="list-style-type: none"> Cytoplasm containing nutrients Lots of mitochondria |
| 11 | Ciliated epithelial cell |  | To move mucus past them and up the trachea. | <ul style="list-style-type: none"> Hair-like structures (cilia) that move Lots of mitochondria |
| 12 | Root hair cell |  | Absorb water and mineral ions from the soil. | <ul style="list-style-type: none"> Large surface area Large vacuole Lots of mitochondria |
| 13 | Palisade cell |  | Carry out photosynthesis to make sugar. | <ul style="list-style-type: none"> Lots of chloroplasts Located at the top of leaves to absorb maximum sunlight |

Section A – Cell Structure

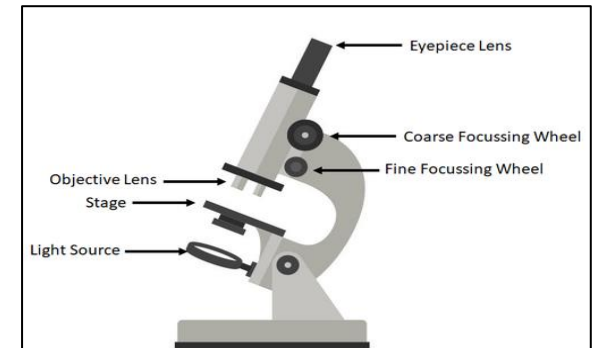


| | Organelle | Function |
|-----|---------------|--|
| 1 | Nucleus | Contains genetic material and controls the activities of the cell. |
| 2 | Cytoplasm | Where most chemical reactions take place. |
| 3 | Cell membrane | Controls the movement of substances into and out of the cell. |
| 4 | Mitochondria | Where respiration takes place to release energy. |
| 5** | Vacuole | Contains cell sap and keeps the cell firm. |
| 6** | Cell wall | Made of cellulose and supports the cell. |
| 7** | Chloroplast | Where photosynthesis takes place to make glucose (a sugar) |

Section C – Cells to System



Section D – Microscopes



** found only in plant cells.