



Topic: Cells and Digestion

Date covered: 9/01/18 – 16/02/18

Key words:

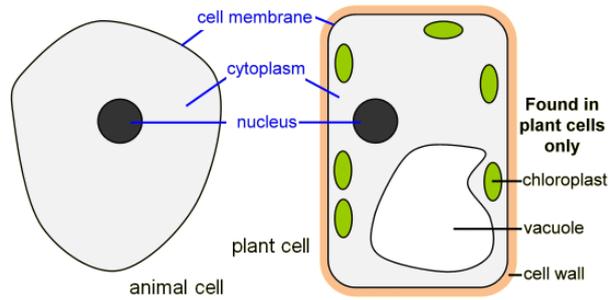
Diffusion	Cytoplasm
Magnification	Tissue
Microscope	Organ
Nucleus	Organ system
Digestion	Penis
Oesophagus	Vagina
Small intestine	Uterus
Large intestine	Oviduct
Cell membrane	Ovary
Cell wall	Testes
Chloroplast	Sperm
Scrotum	Egg cell
Gamete	Gland
Fertilisation	
Urethra	

Key facts:

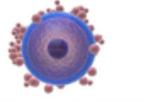
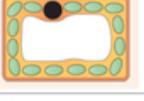
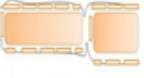
- Functions of parts of the cell:
 - **Nucleus:** Controls the cell
 - **Vacuole:** Contains cell sap
 - **Cell membrane:** Controls what enters and leaves the cell
 - **Cytoplasm:** site of chemical reactions
 - **Ribosomes:** Protein synthesis
 - **Mitochondrion:** site of respiration
 - **Cell wall:** Structure and support
 - **Chloroplast:** contains chlorophyll to absorb light for photosynthesis
- Specialised cells are adapted to their role.
 - **Sperm cell:** Streamlined to move faster, tail for swimming
 - **Red blood cell:** Large surface area allows more oxygen to be absorbed.
 - **Root hair cell:** Large surface area allows more water to be absorbed.
 - **Palisade cell:** Packed with chloroplast to absorb sunlight for photosynthesis.
- **Fertilisation** is when a sperm meets an egg.
- Cells form tissues which form organs which form organ systems.
- **Digestive system:** food enters through the mouth, it then travels down the oesophagus and into the stomach, and it then travels through the small intestine and into the large intestine. Finally it is passed out the anus.
- **The main food group** are fats, protein, carbohydrates, vitamins, minerals, fibre and water.
 - The body uses fat as a store of energy.
 - The body use protein for growth and repair.
 - The body use carbohydrates for energy.
 - The body uses vitamins and minerals for a variety of different jobs that keep your body functioning and healthy e.g. making bones strong, heal wounds and make the immune system stronger.
 - The body uses fibre for healthy digestion it is not absorbed by the body.
- **Enzymes** are biological catalysts, they break down food.

Key diagrams:

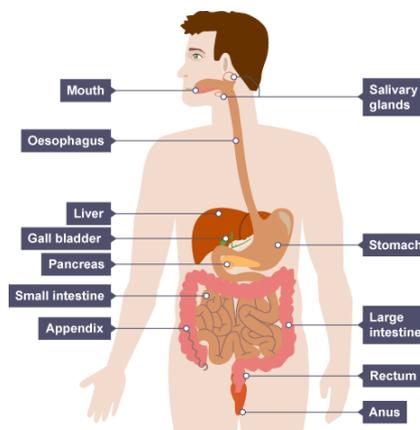
Plant and Animal cells



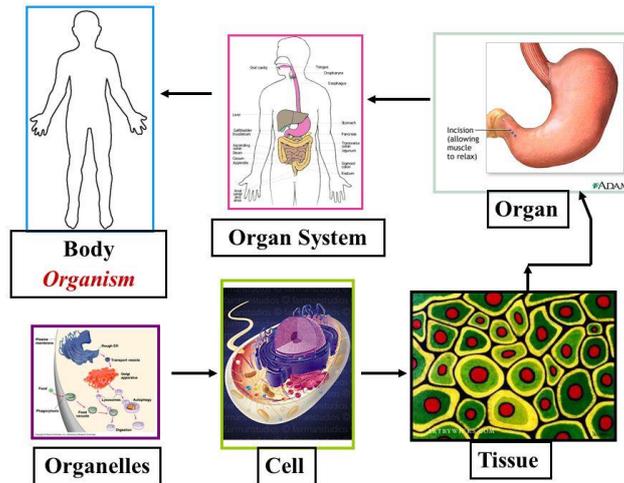
Specialised Cells

	SPERM CELL	Long tail for swimming Head for getting into the female cell
	EGG CELL	Large Contains lots of cytoplasm
	NERVE CELL	Long connections at each end Can carry electrical signals
	RED BLOOD CELL	Large surface area Contains haemoglobin, which joins with oxygen
	ROOT HAIR CELL	Large surface area
	LEAF PALISADE CELL	Large surface area Lots of chloroplasts
	XYLEM CELL	Hollow so it conducts water Strong cell walls

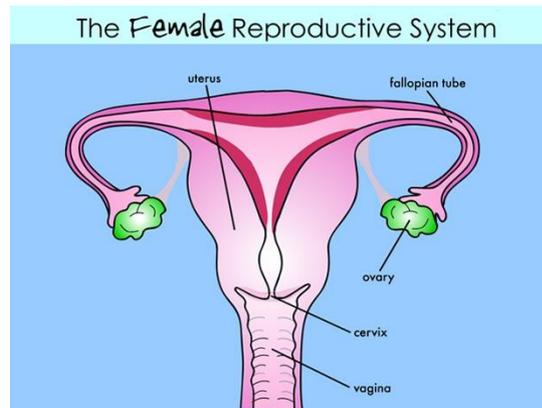
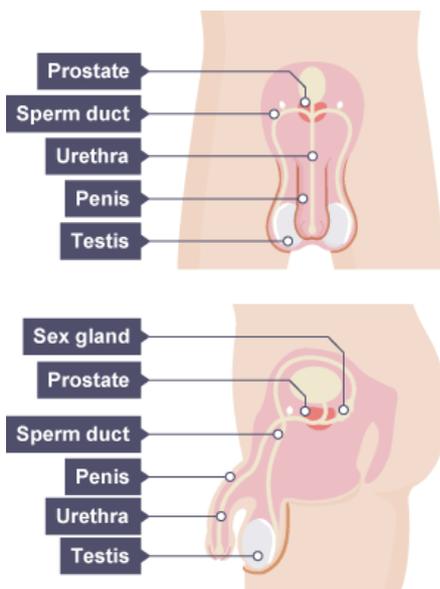
Digestive System



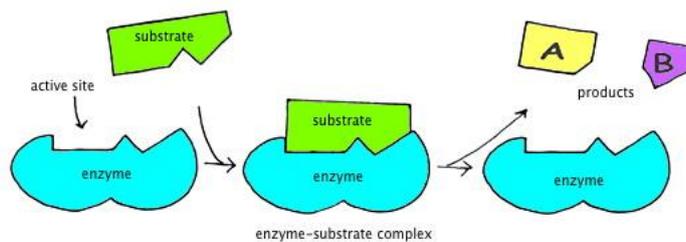
Organelles to Organ system:



Reproductive systems:



Enzymes:



Additional information: