

SSLC SCIENCE IMPORTANT DIAGRAMS -(2022 -2023)

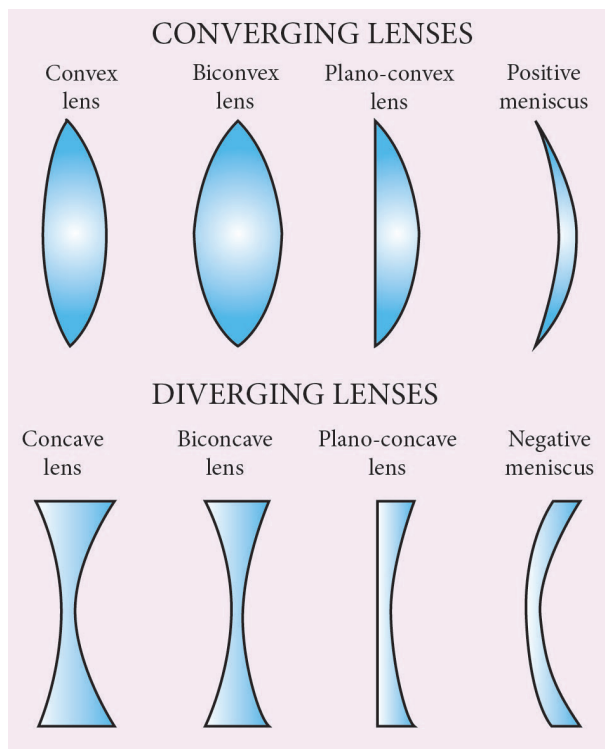


Figure 2.2 Types of lenses

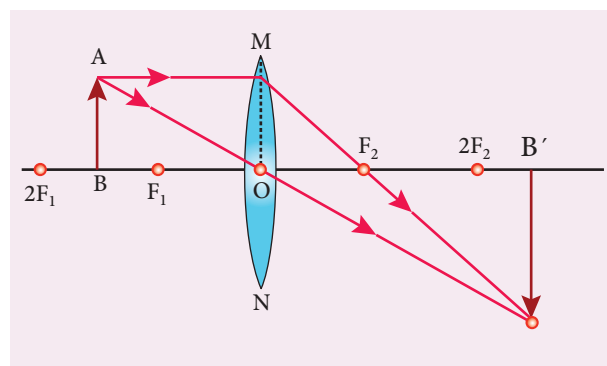


Figure 2.9 Object placed between F and C

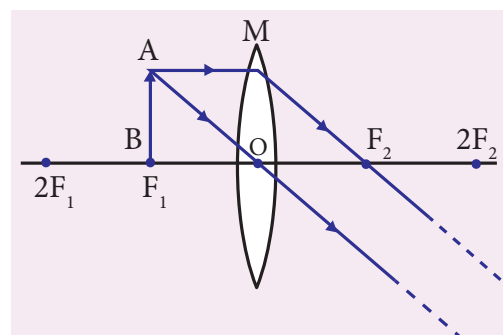


Figure 2.10 Object placed at the principal focus F

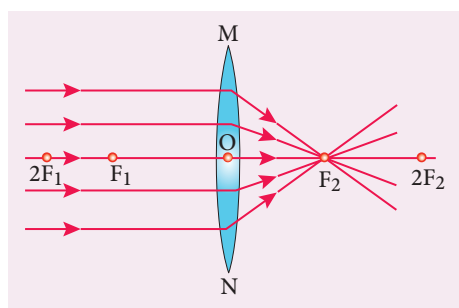


Figure 2.6 Object at infinity

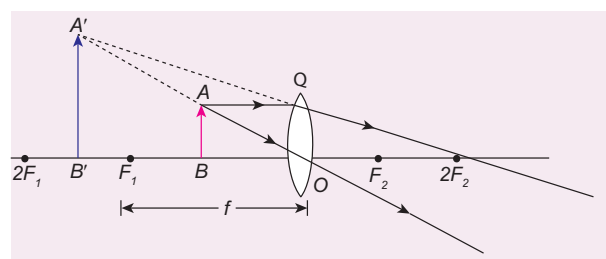


Figure 2.11 Object placed between the principal focus F and optical centre O

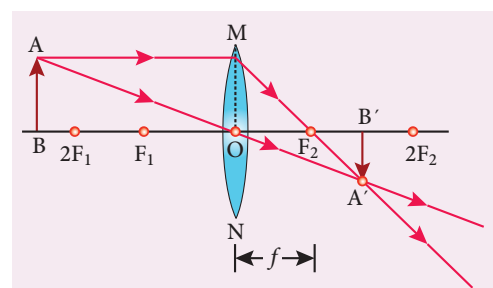


Figure 2.7 Object placed beyond C (>2F)

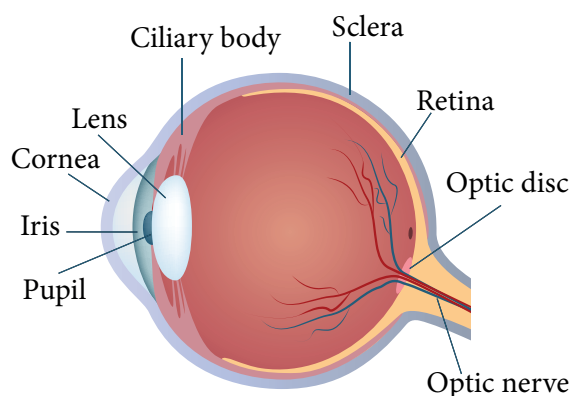


Figure 2.15 Human eye

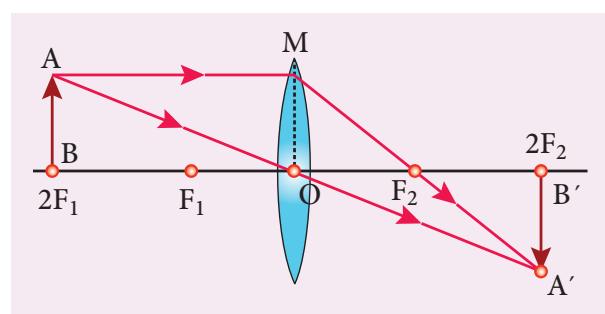


Figure 2.8 Object placed at C

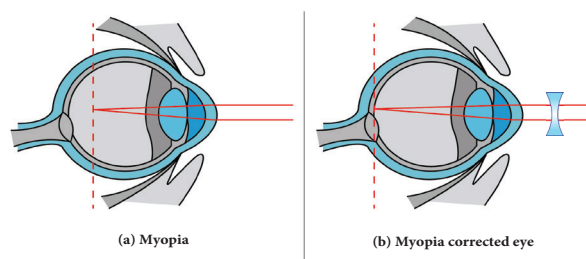


Figure 2.16 (a) Vision with myopia
b) orrected vision using a concave lens

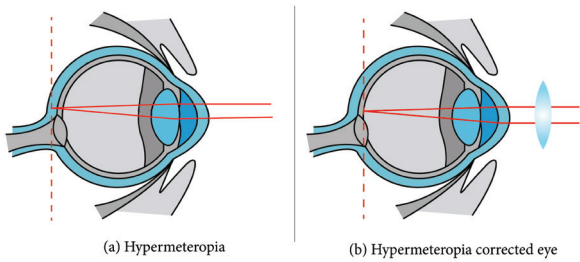


Figure 2.17 (a) Vision with hypermetropia
(b) Corrected vision using a convex lens

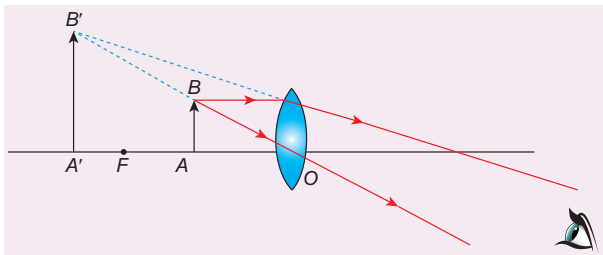


Figure 2.18 Image formation in simple microscope

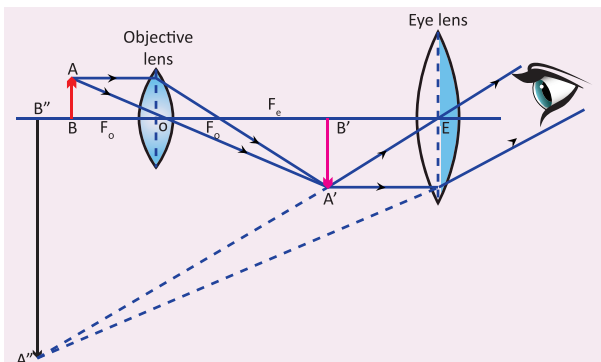


Figure 2.19 Image formation in compound microscope

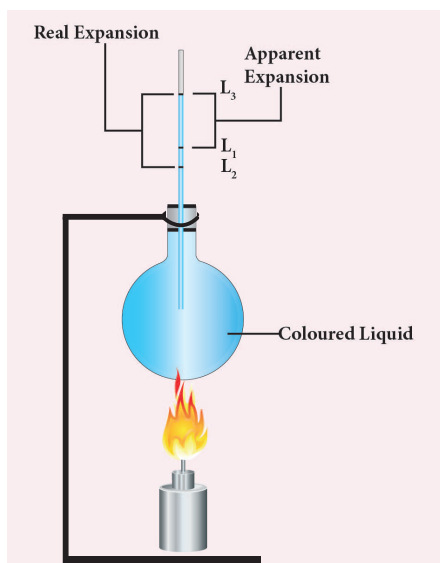


Figure 3.5 Real and apparent expansion of liquid

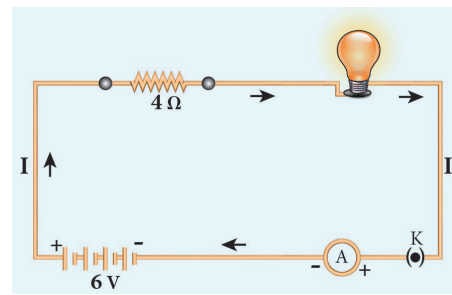


Figure 4.2 A simple electric circuit

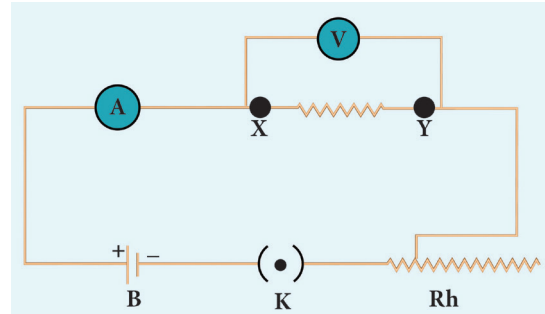


Figure 4.4 Electric circuit to understand Ohm's law

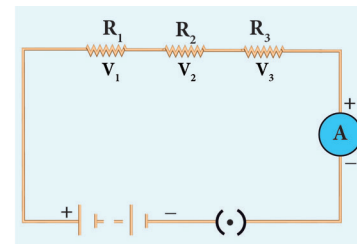


Figure 4.6 Series connection of resistors

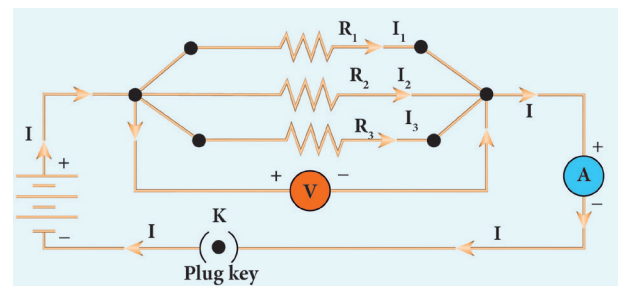


Figure 4.7 Parallel connections of resistors

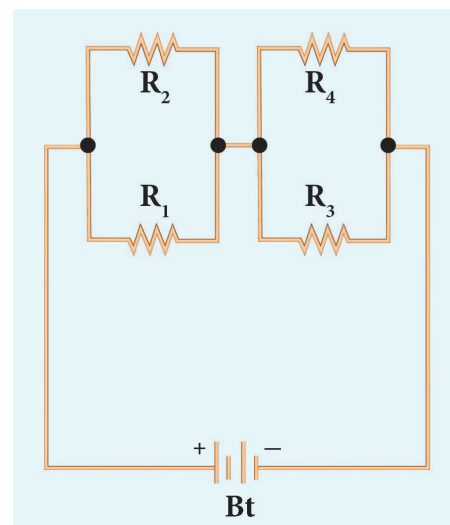


Figure 4.8 Series-parallel combination of resistors

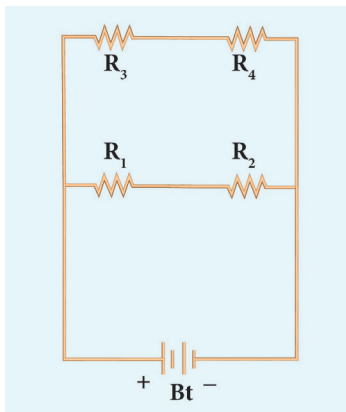


Figure 4.9 Parallel-series combination of resistors

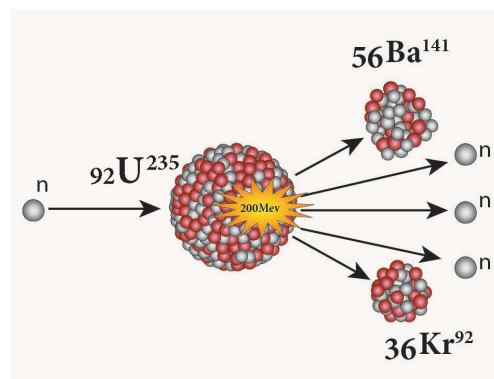


Figure 6.2 Nuclear fission

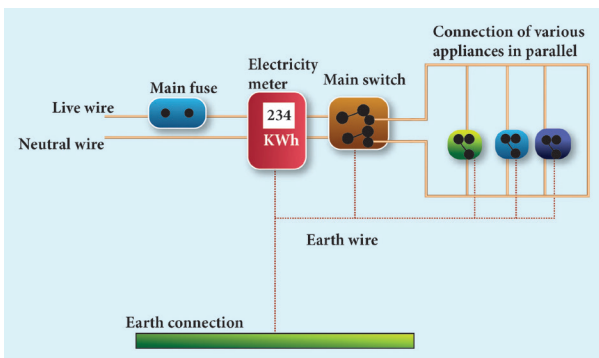


Figure 4.10 Domestic electric circuit

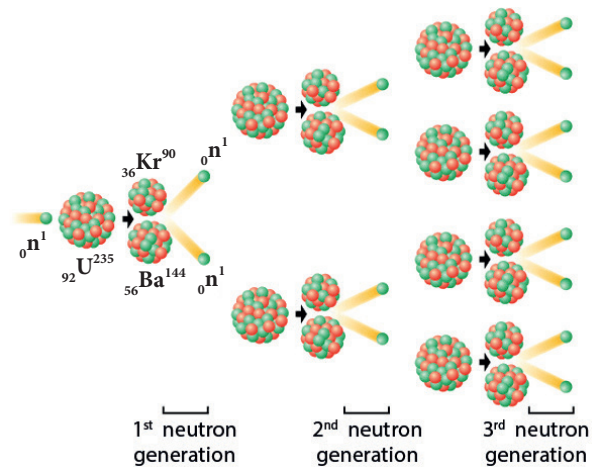


Figure 6.3 Uncontrolled chain reaction

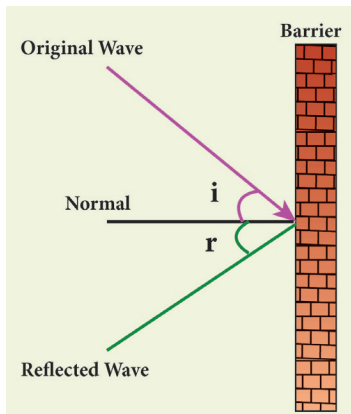


Figure 5.4 Laws of reflection

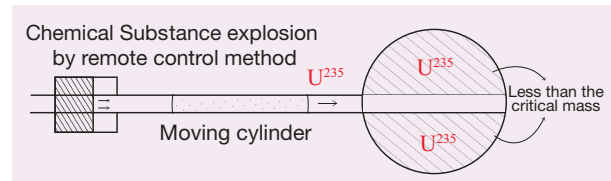


Figure 6.4 Atom bomb

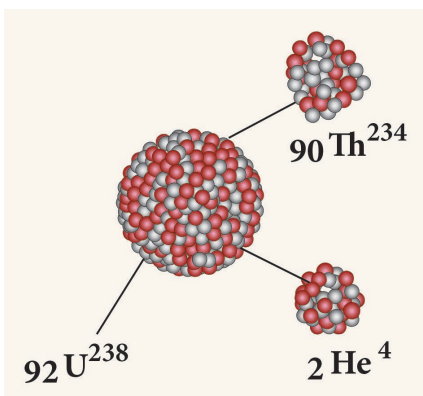


Figure 6.1 Alpha decay

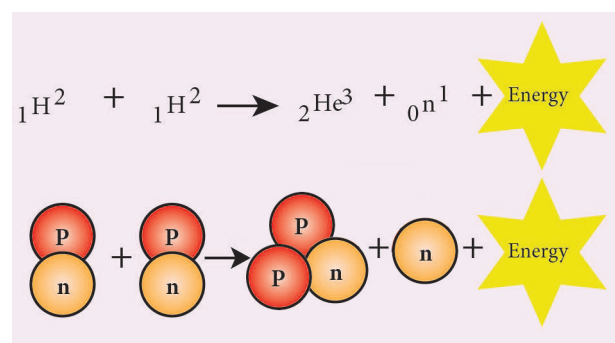


Figure 6.5 Nuclear fusion

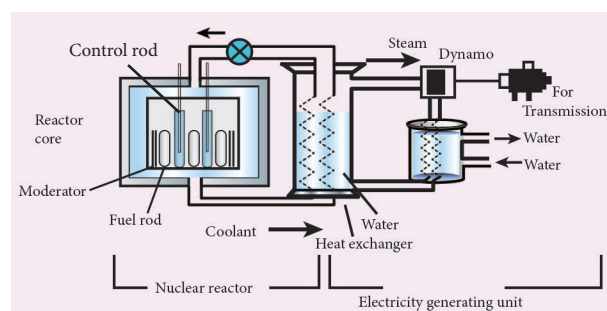


Figure 6.7 Schematic diagram of a nuclear reactor

6.7.3 Uses of a nuclear reactor

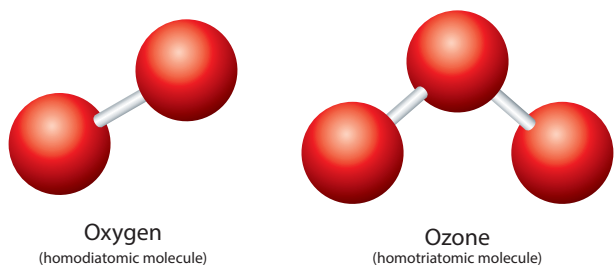


Figure 7.1 Homoatomic molecules

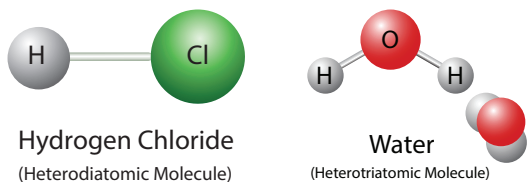


Figure 7.2 Heteroatomic molecules

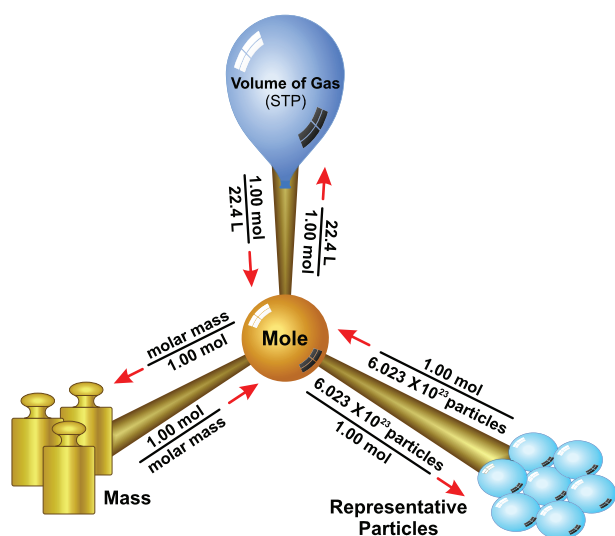


Figure 7.3 Mole concept

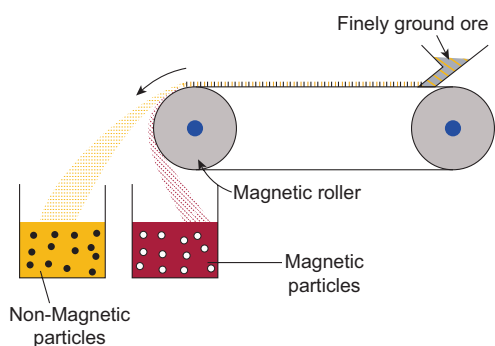


Figure 8.8 Magnetic separation

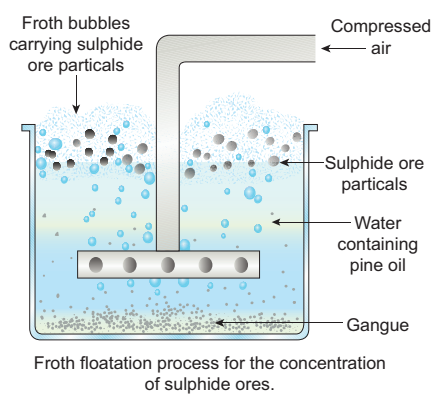


Figure 8.9 Froth flotation

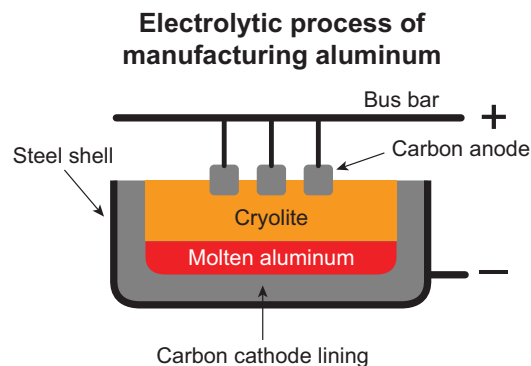


Figure 8.10 Hall's Process

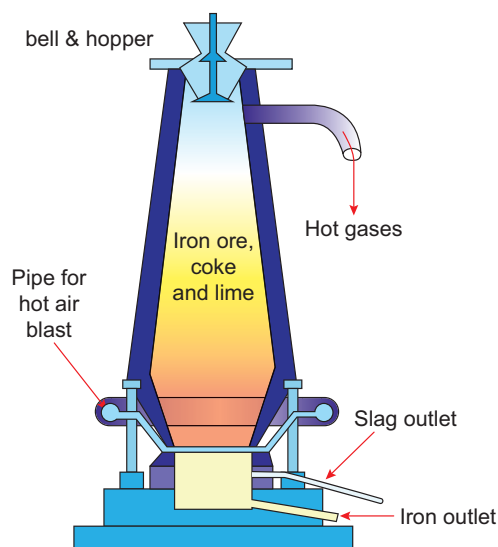


Figure 8.11 Blast Furnace

Rusting

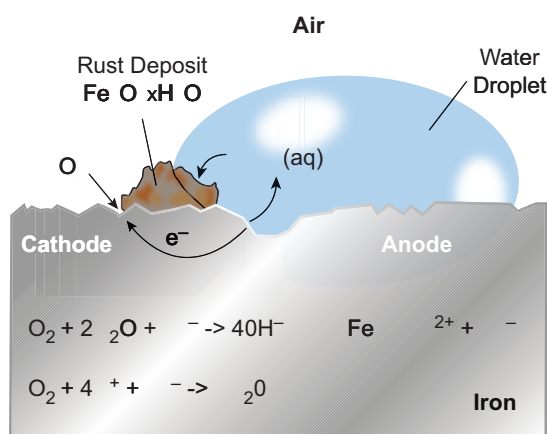
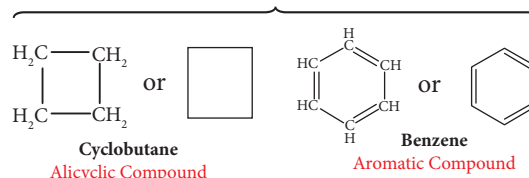
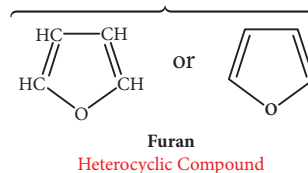


Figure 8.12 Rusting

Carbo (Homo) cyclic compounds



Heterocyclic compounds



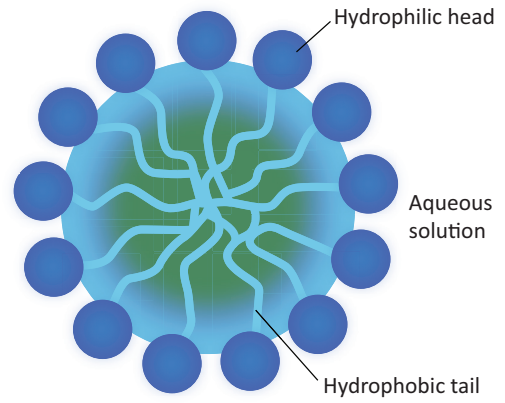
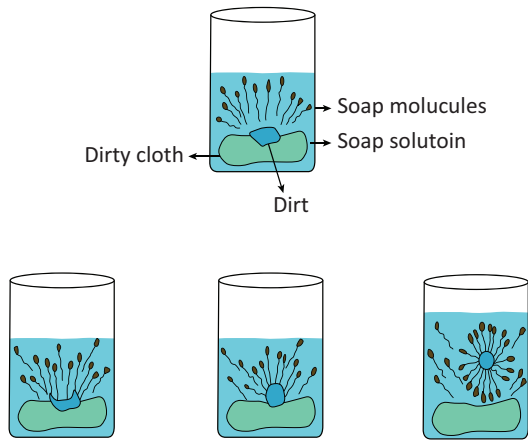


Figure 11.3 Cleansing action of soap

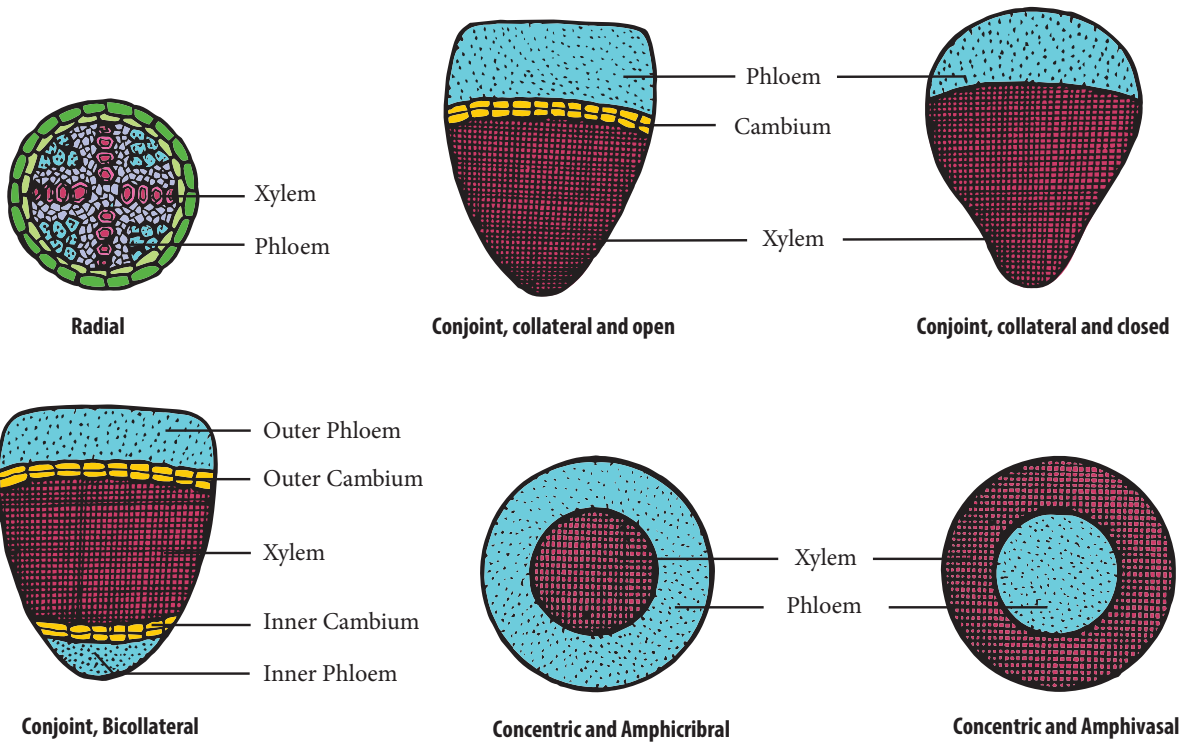


Figure 12.1 Types of vascular bundle

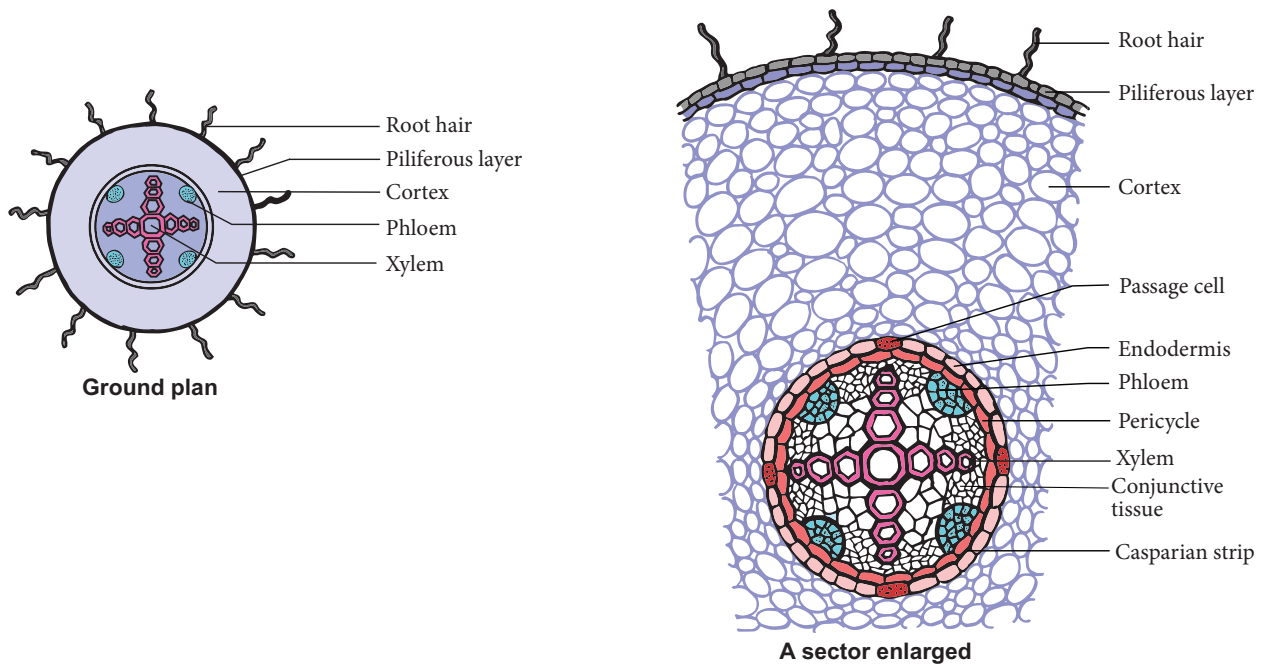
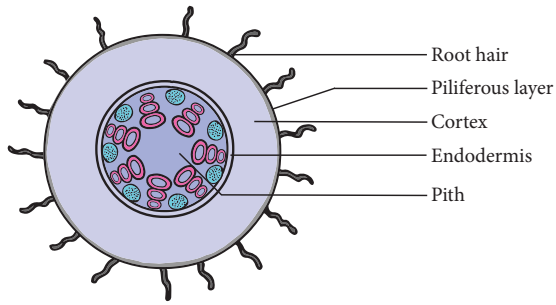
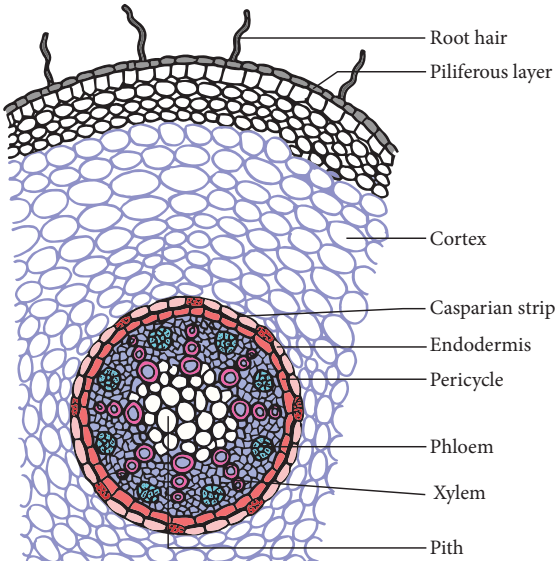


Figure 12.2 Transverse section of Dicot root

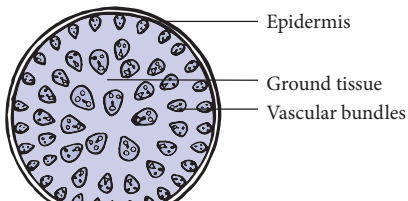


Ground plan

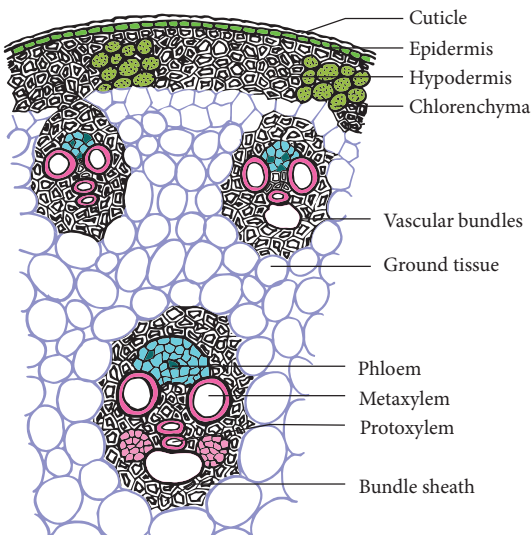


A sector enlarged

Figure 12.3 Transverse section of Monocot root

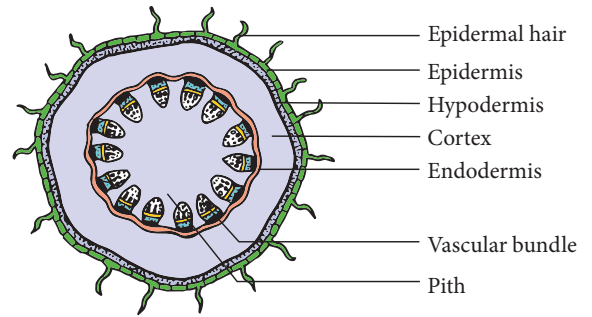


Ground plan

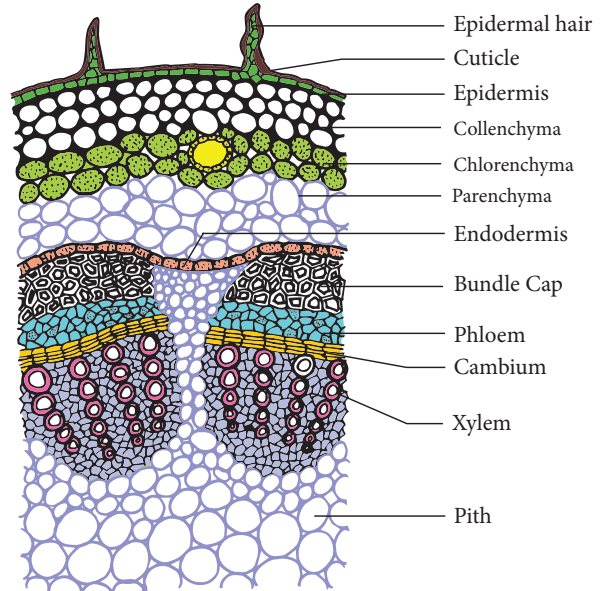


A sector enlarged

Figure 12.5 Transverse section of Monocot stem



Ground plan



A sector enlarged

Figure 12.4 Transverse section of Dicot stem

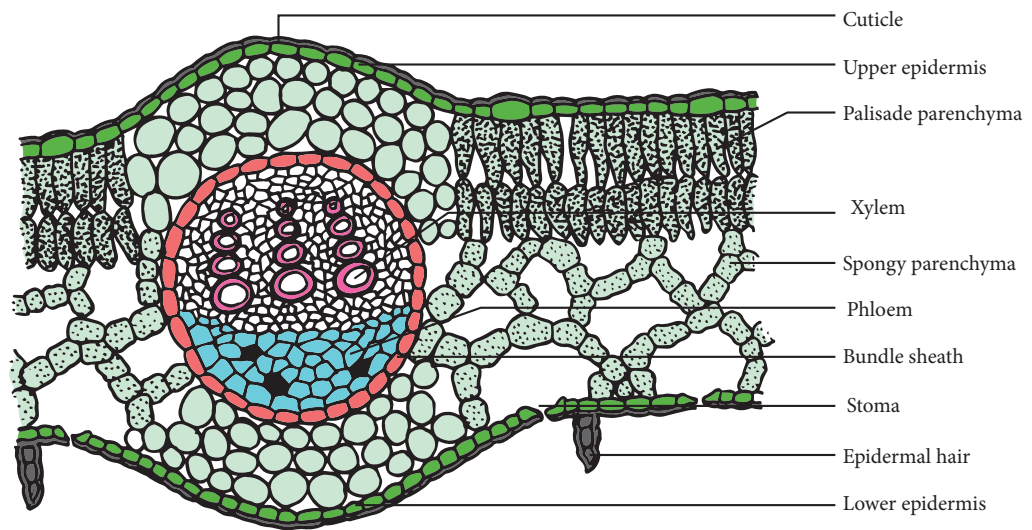


Figure 12.6 Transverse section of Dicot leaf

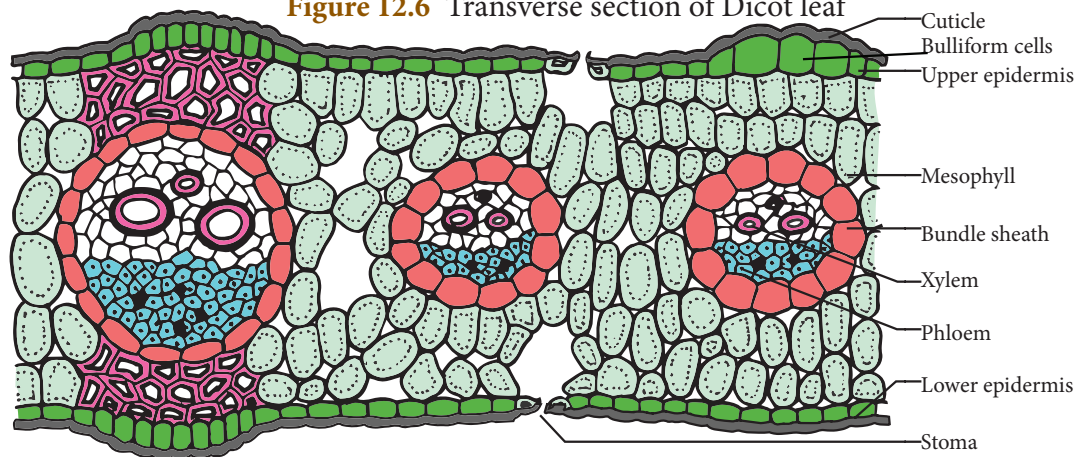


Figure 12.7 Transverse section of Monocot Leaf

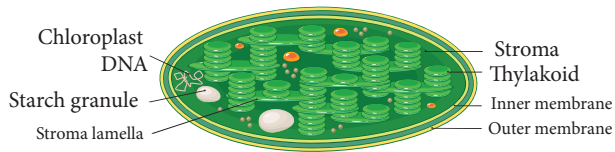


Figure 12.8 Ultrastructure of Chloroplast

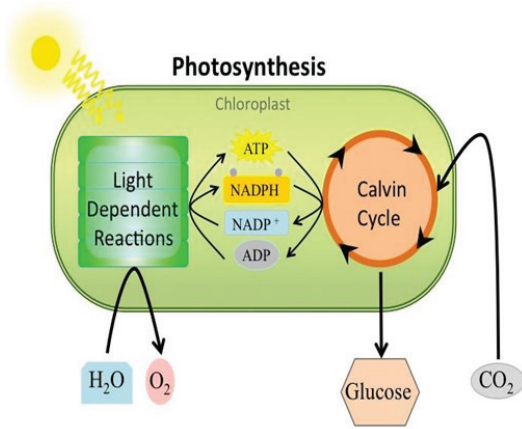


Figure 12.9 Overview of Hill and Calvin cycle

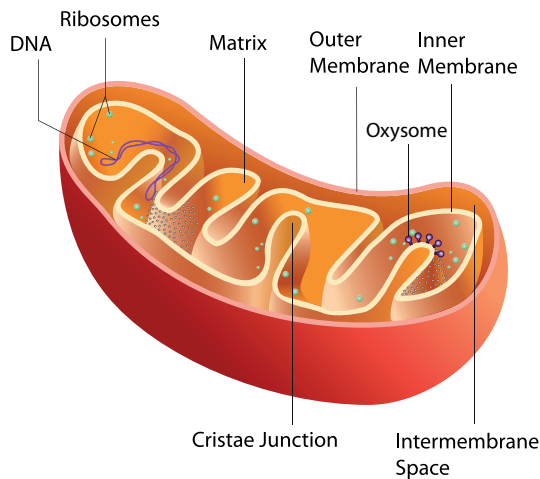


Figure 12.10 Structure of Mitochondria

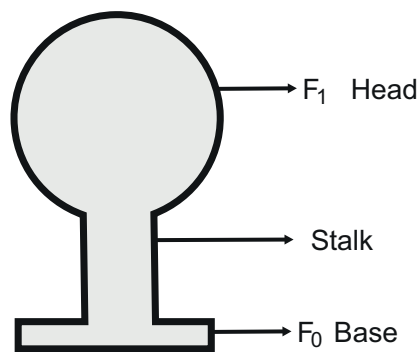


Figure 12.11 Structure of Oxysomes

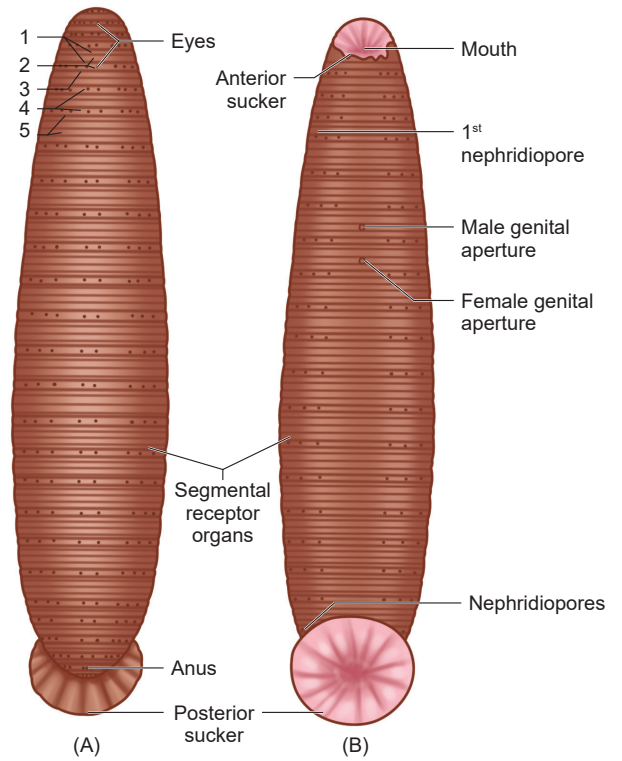


Figure 13.1 External morphology of Leech
A. Dorsal View B. Ventral view

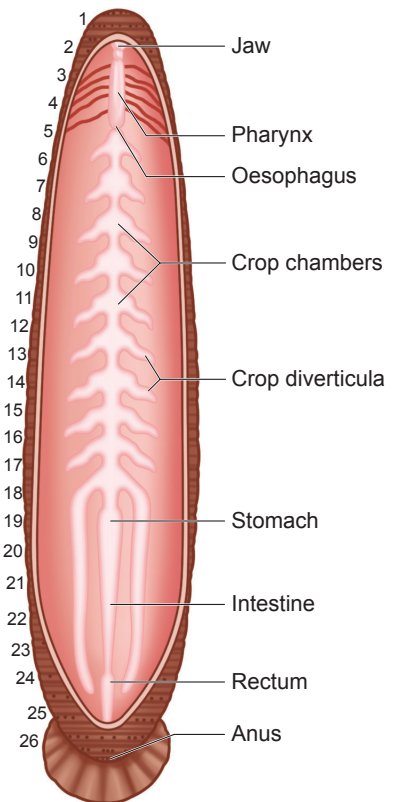


Figure 13.2 Digestive system of Leech

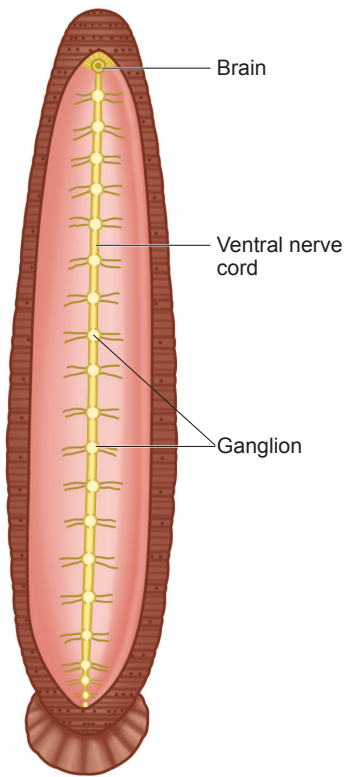


Figure 13.3 Nervous system of Leech

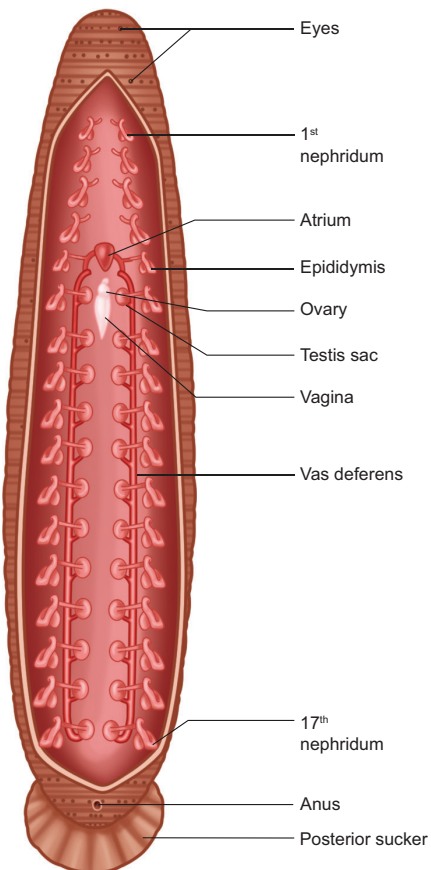


Figure 13.4 Reproductive system of Leech

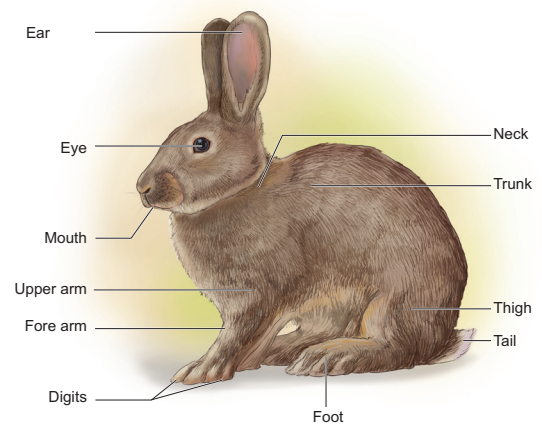


Figure 13.5 Rabbit- External features

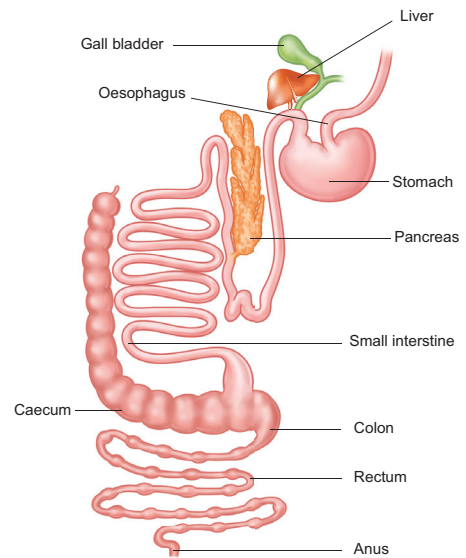


Figure 13.6 Digestive System of Rabbit

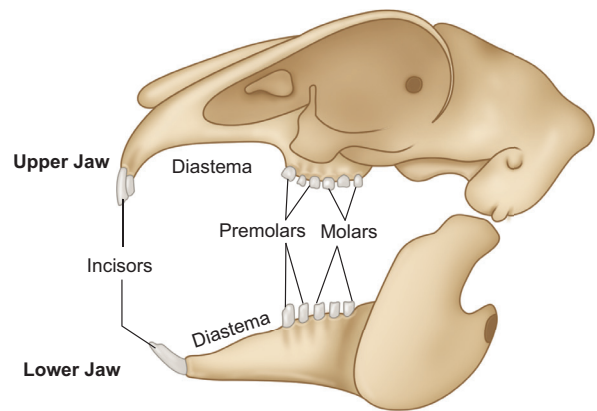


Figure 13.7 Dentition of Rabbit (Arrangement of teeth in jaws)

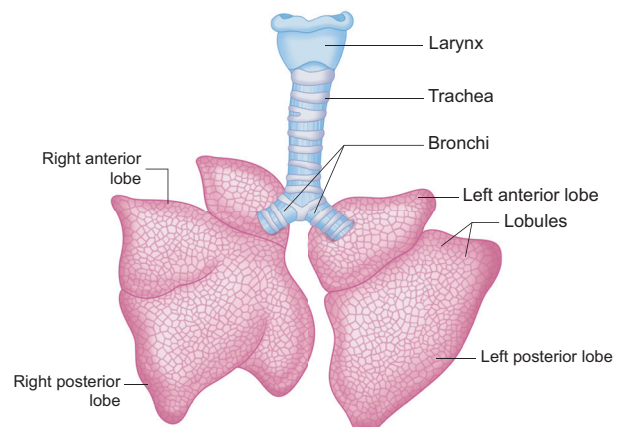


Fig. 13.8 Lungs of Rabbit

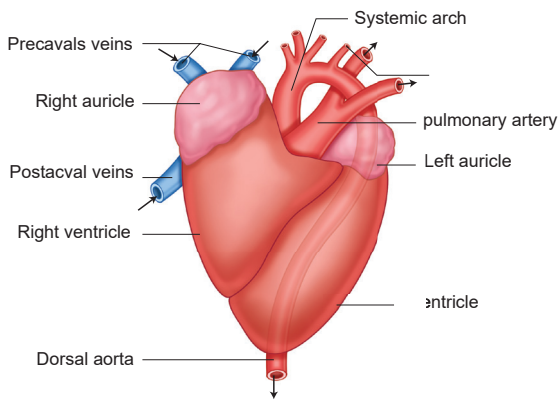


Fig. 13.9 Heart of Rabbit - Ventral View

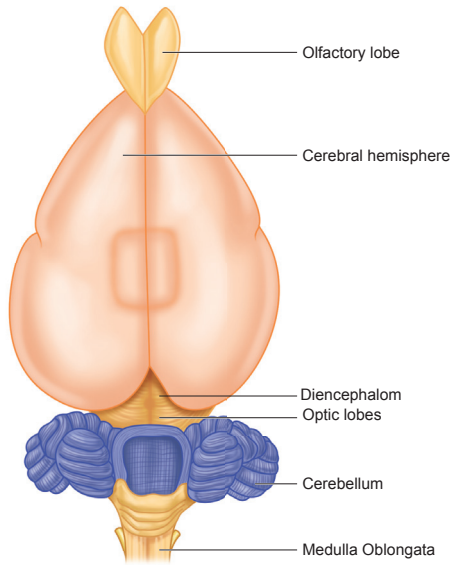


Fig. 13.10 Brain of Rabbit (Dorsal view)

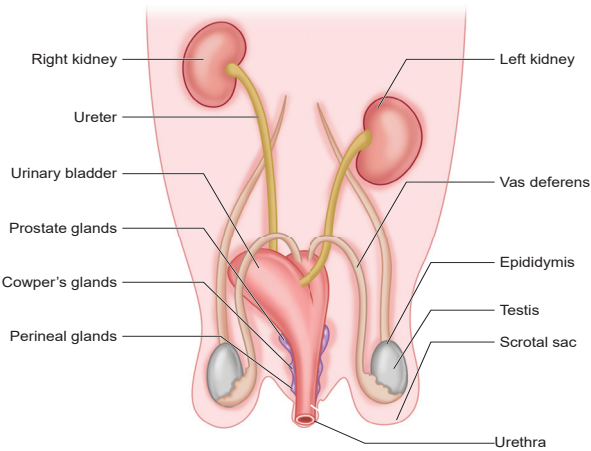


Fig. 13.11 Male reproductive system of Rabbit

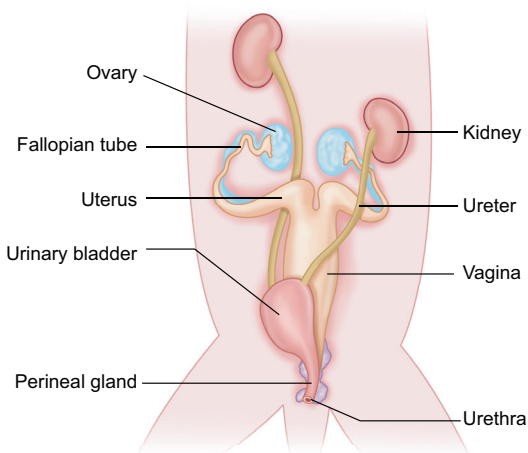


Fig. 13.12 Female reproductive system of Rabbit

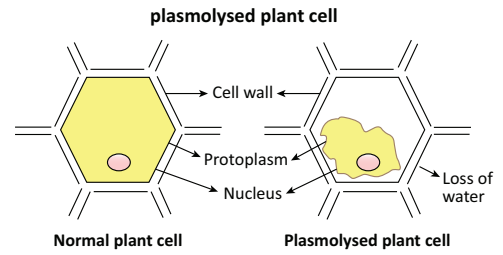
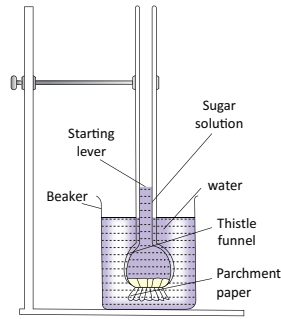


Figure 14.2 Plasmolysis



Demonstration of Osmosis

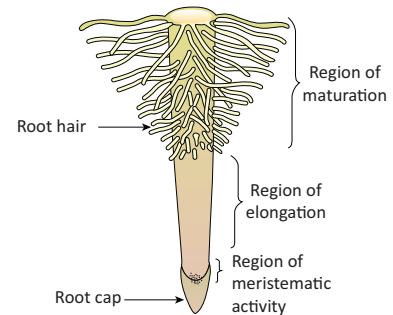


Figure 14.3 Root Tip with Root Hairs

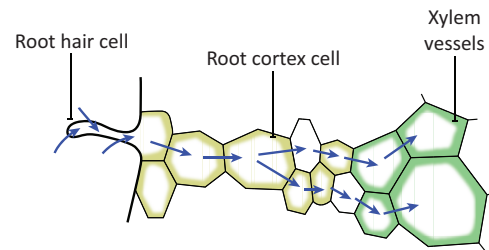


Figure 14.4 T. S. of the root showing movement of water from soil to xylem

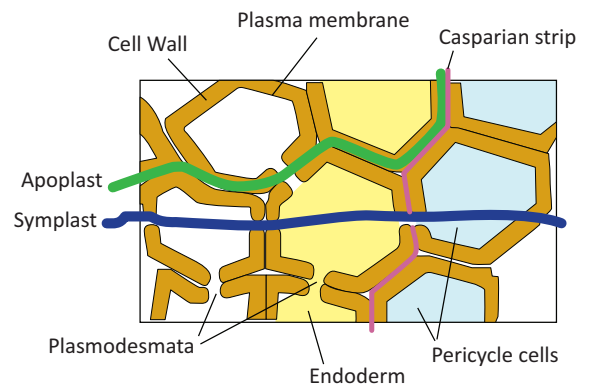


Figure 14.5 Symplastic and Apoplastic pathways of Water

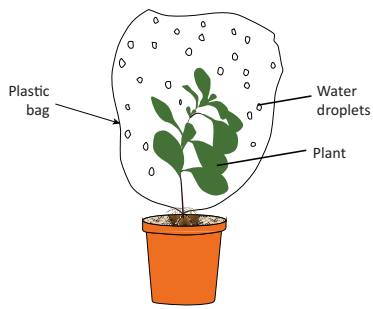


Figure 14.6 Process of Transpiration

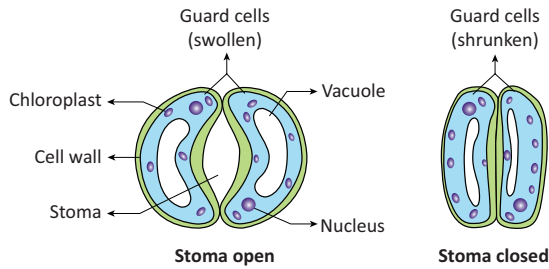


Figure 14.7 Guard cell in turgid and flaccid condition

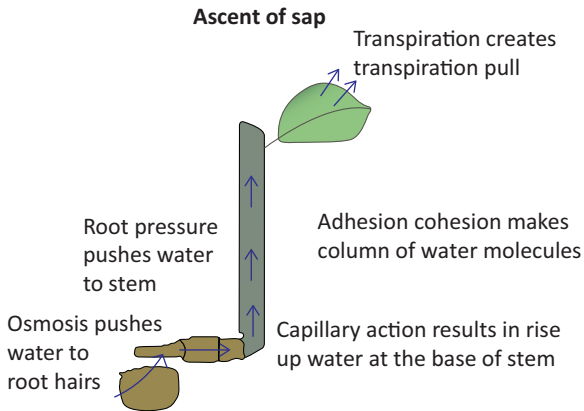
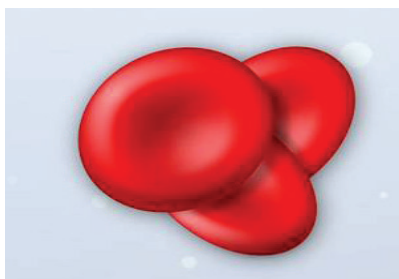


Figure 14.8 Ascent of Sap



Red blood corpuscles (Erythrocytes)

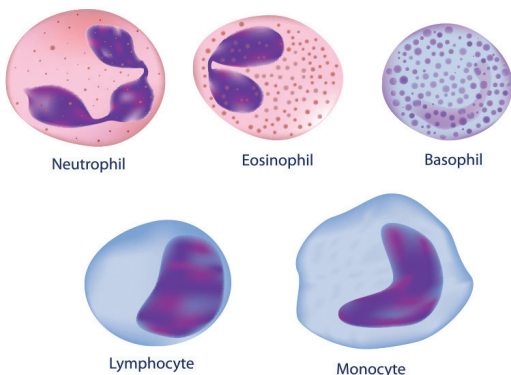


Figure 14.9 Leucocytes

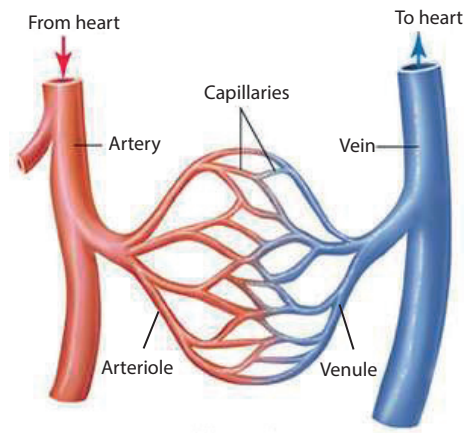


Figure 14.10 Structure of blood vessel

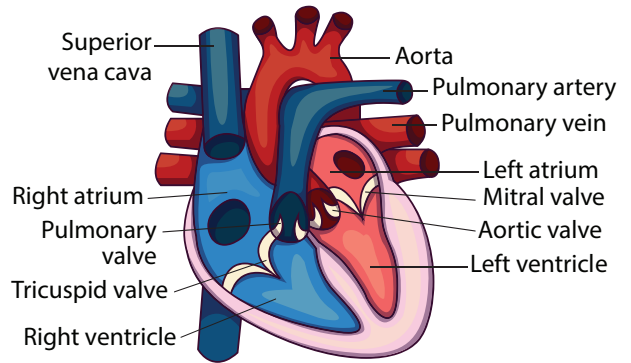


Figure 14.11 External structure of human heart

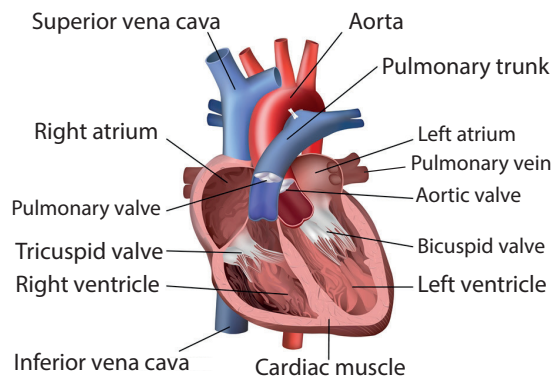


Figure 14.12 Internal structure of human heart

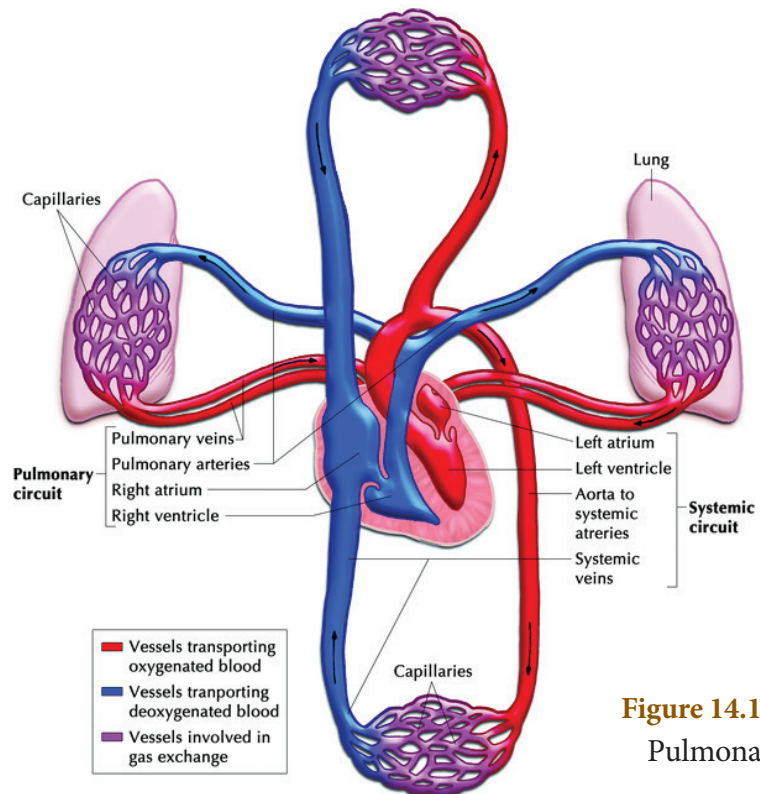


Figure 14.13 Systemic and Pulmonary circulation



Figure 14.14 Stethoscope

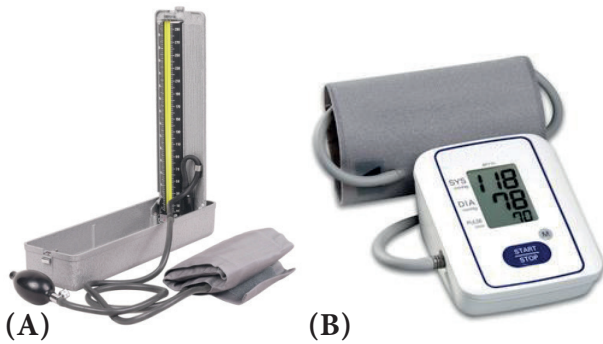


Figure 14.15 Monometric (A) and Digital (B) type blood pressure apparatus

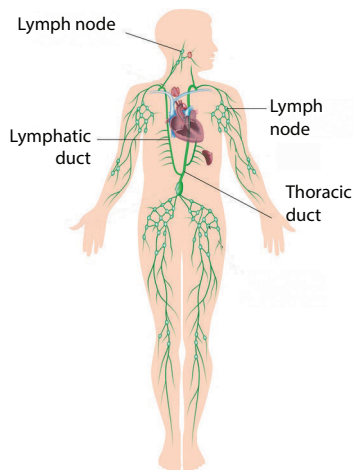


Figure 14.16 Lymphatic System in Man

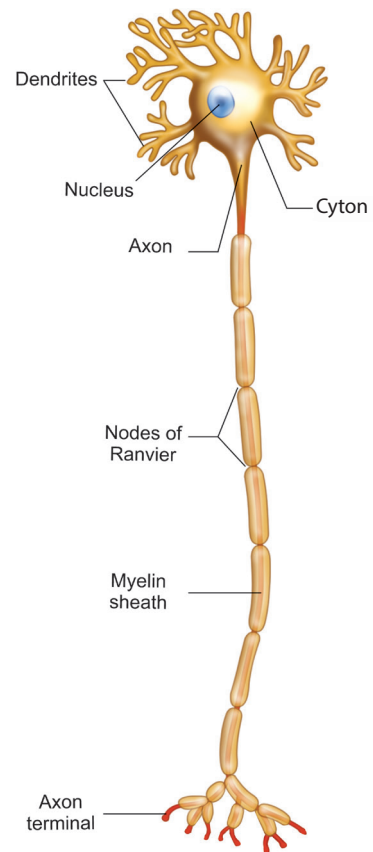


Fig. 15.1 Structure of Neuron

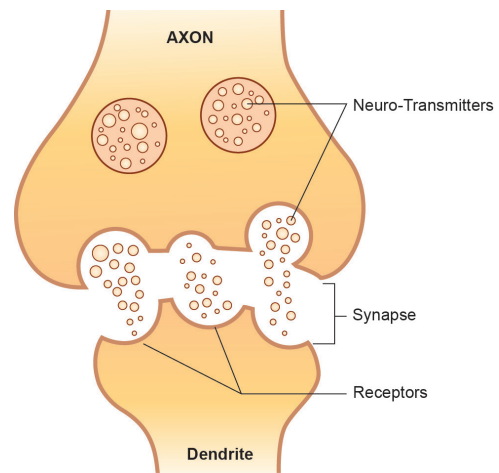


Fig. 15.3 Nerve impulse transmission

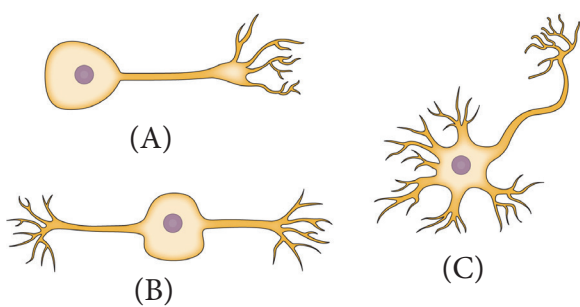


Fig. 15.2 Unipolar (A), Bipolar (B) and multipolar (C) neurons

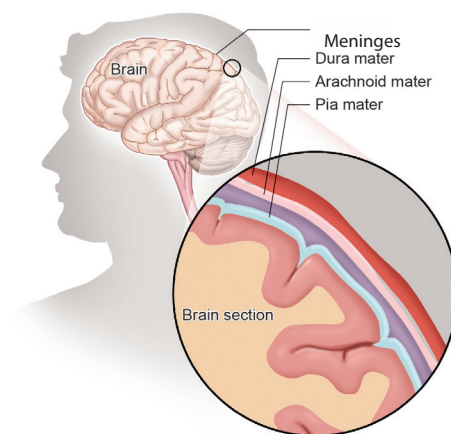


Fig. 15.4 Meninges of Brain

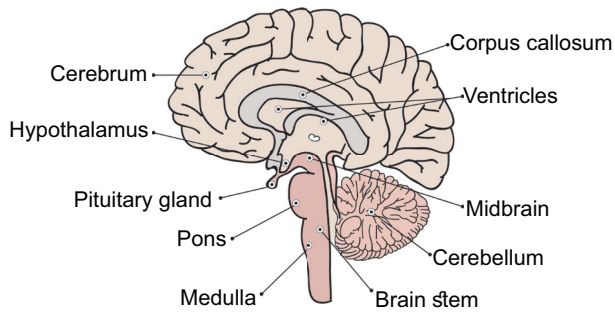


Fig. 15.5 L.S of Human Brain

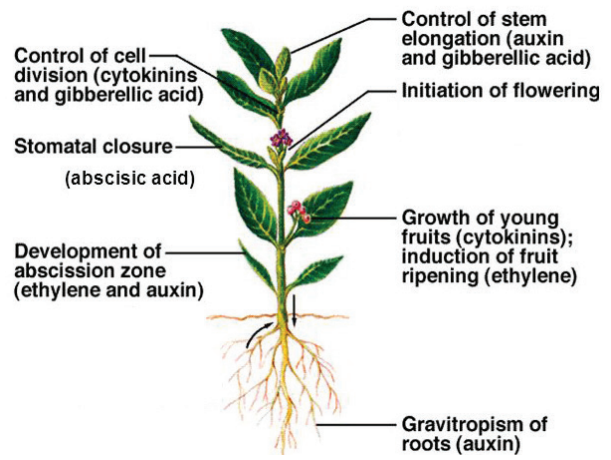


Figure 16.1 Hormonal interaction in plant growth and development

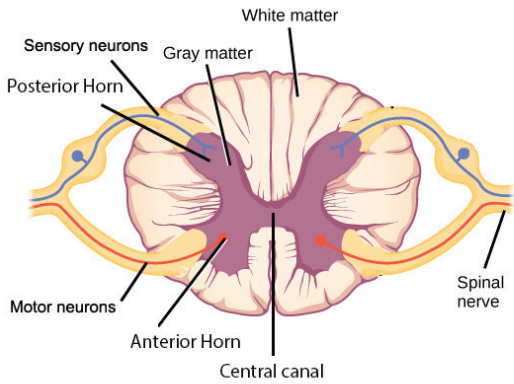
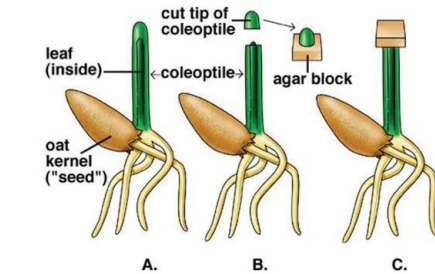


Fig. 15.6 Structure of spinal cord



A. Germination of an oat seed
B. Decapitate tip of coleoptile and place on agar block.
C. Agar block is placed on top of the decapitated tip of the seedling.

Figure 16.2 Went's Experiment

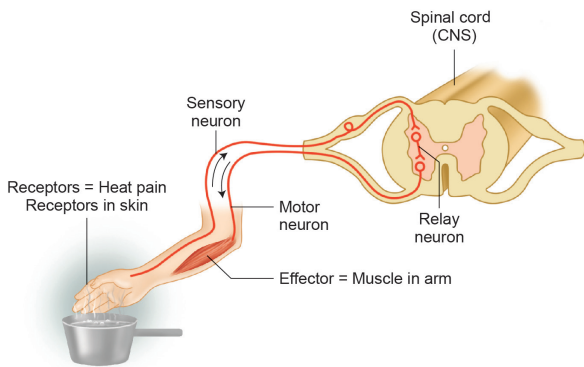


Fig. 15.7 Reflex action and its pathway

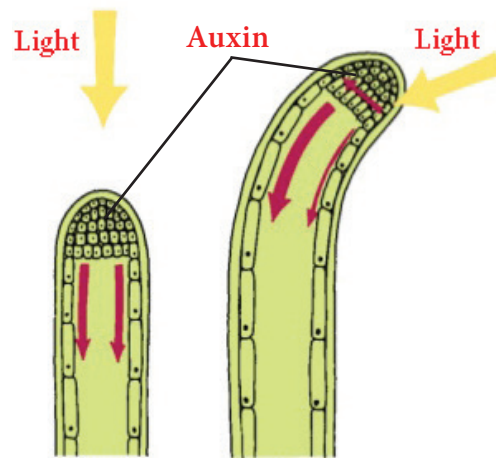


Figure 16.3 Cell Elongation

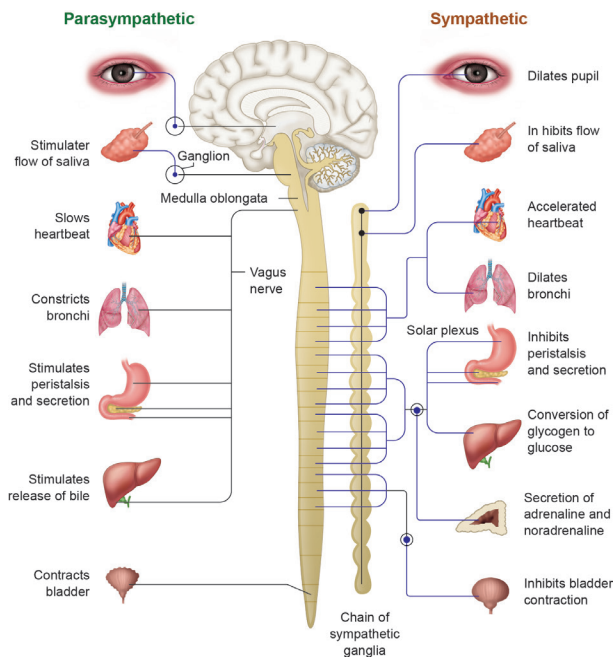


Fig. 15.8 Sympathetic and Parasympathetic nervous system

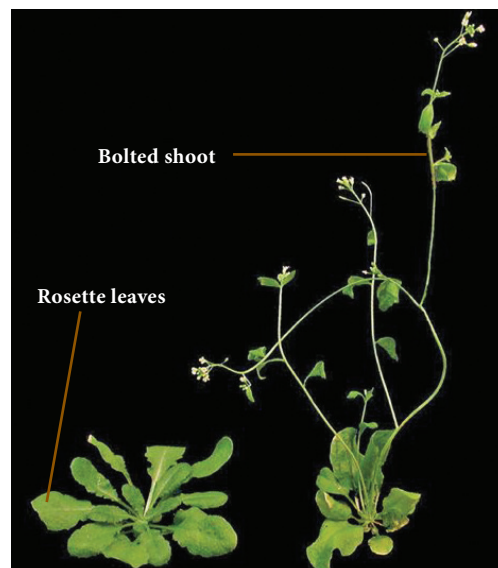


Figure 16.4 Bolting

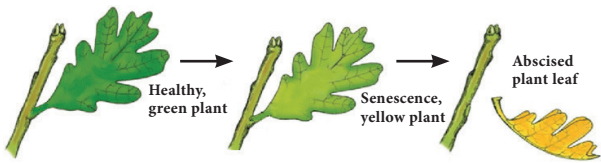


Figure 16.5 Senescence and abscission

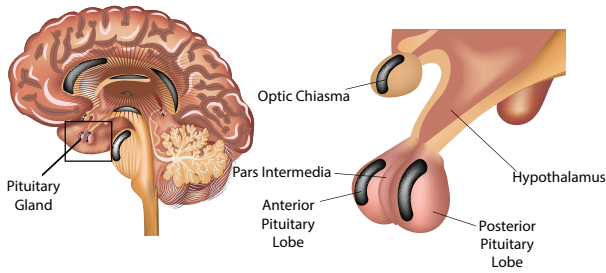


Figure 16.7 Pituitary Gland

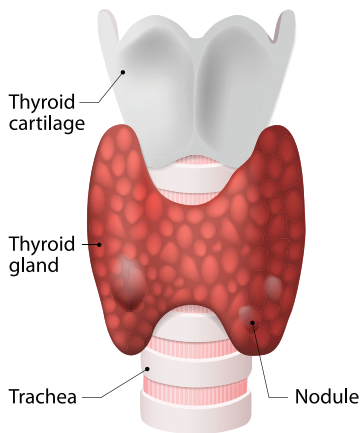


Figure 16.8 Thyroid Gland

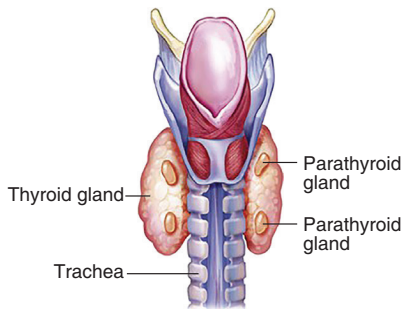


Figure 16.9 Parathyroid Gland

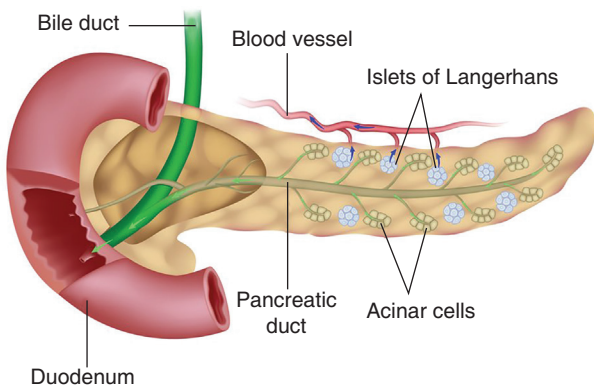


Figure 16.10 Pancreas

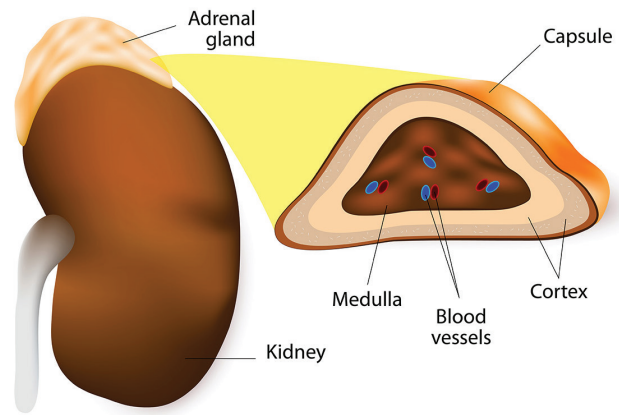


Figure 16.11 Adrenal Gland

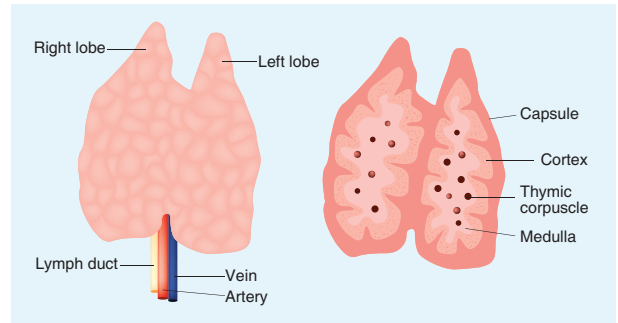


Figure 16.12 Thymus Gland



Figure 17.1 Vegetative reproduction by leaf

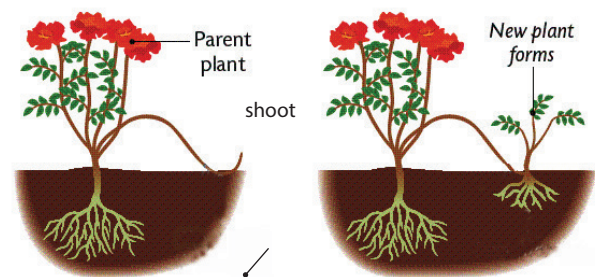


Figure 17.2 Vegetative reproduction by stem

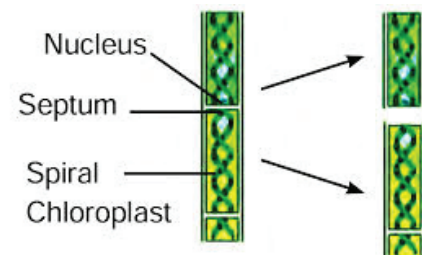


Figure 17.3 Fragmentation in Spirogyra

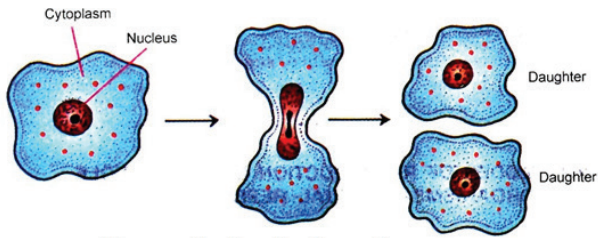


Figure 17.4 Fission in Amoeba

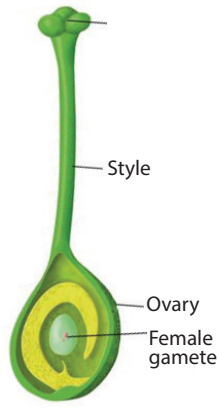


Figure 17.9 Gynoecium

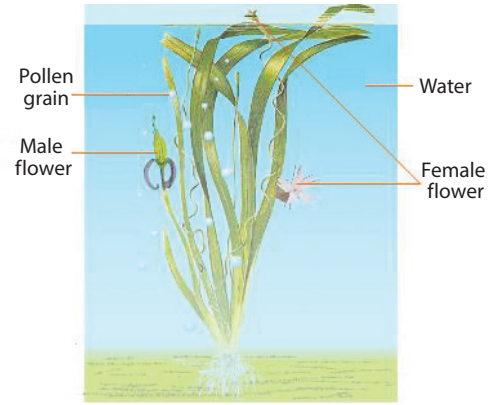


Figure 17.11 Hydrophily

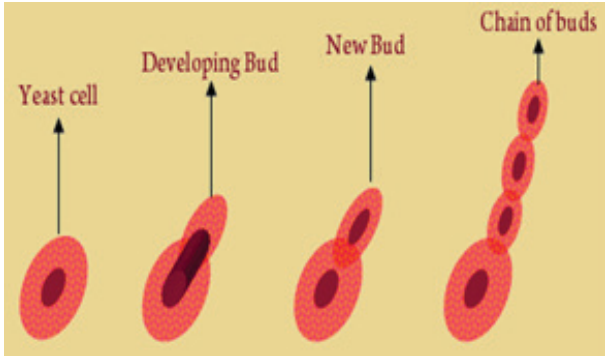


Figure 17.5 Budding in Yeast

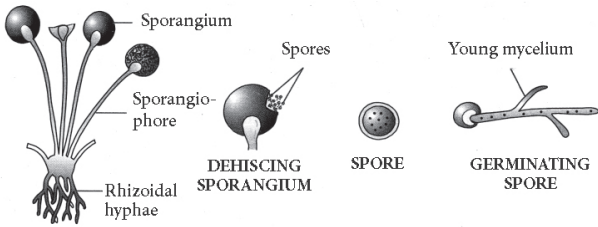


Figure 17.6 Spore formation in *Rhizopus*

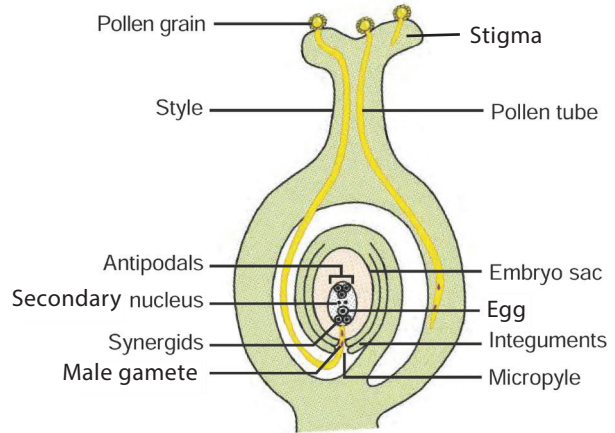


Figure 17.12 Process of Fertilization

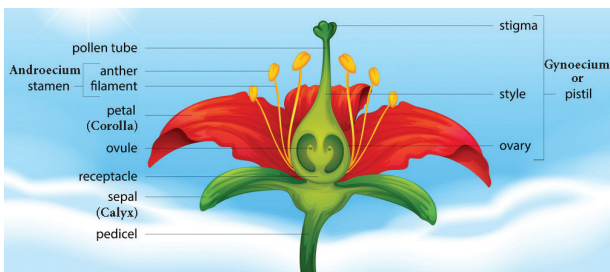


Figure 17.7 Parts of a flower

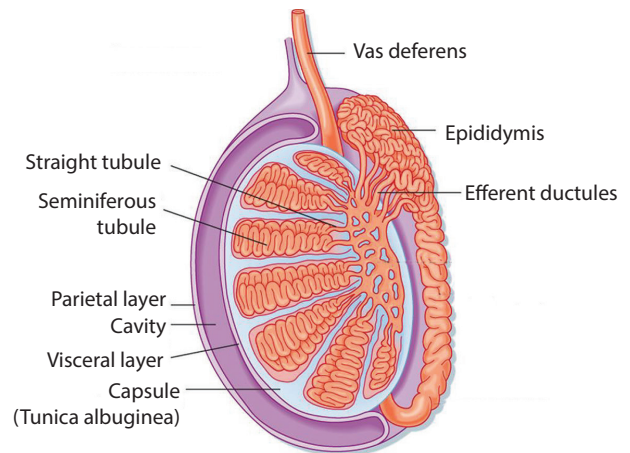


Figure 17.13 L.S of human testes

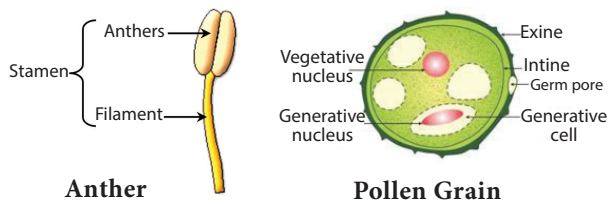


Figure 17.8 Structure of Anther and Pollen grain

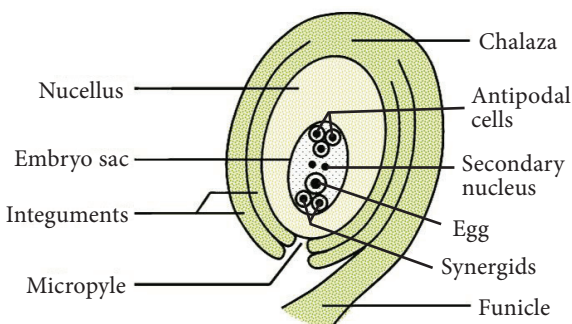


Figure 17.10 Structure of an Ovule

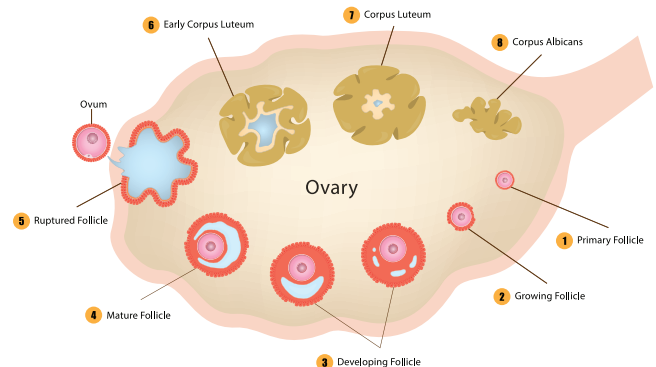


Figure 17.14 L.S of human ovary

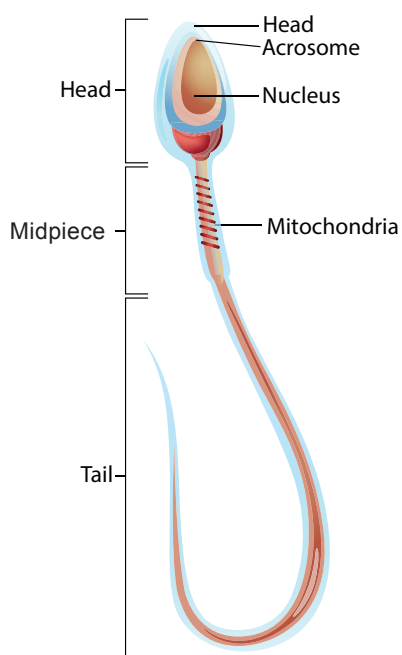


Figure 17.15 Structure of sperm

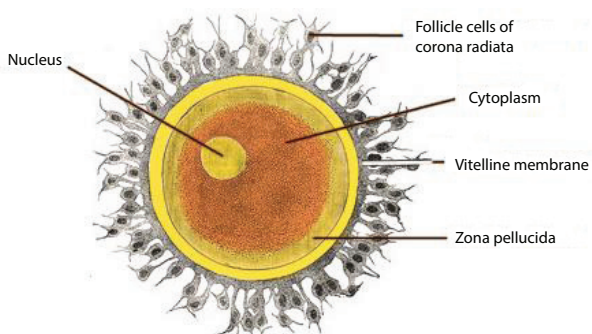


Figure 17.16 Structure of ovum

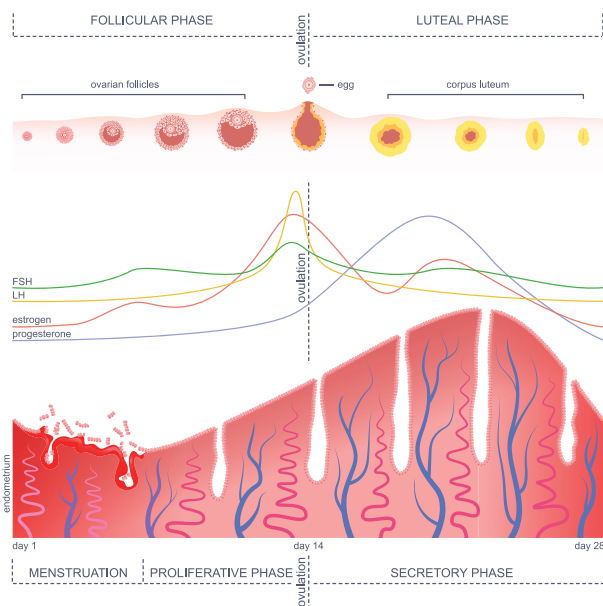


Figure 17.17 Menstrual cycle

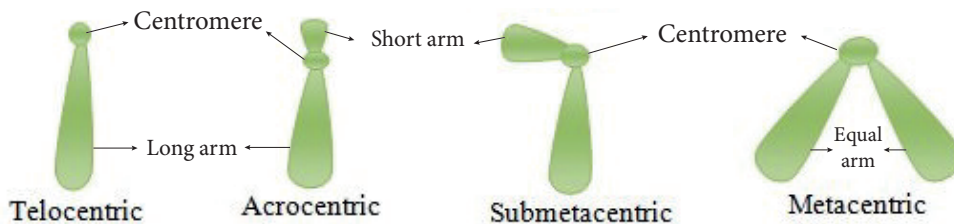


Figure 18.4 Types of chromosomes based on position of centromere

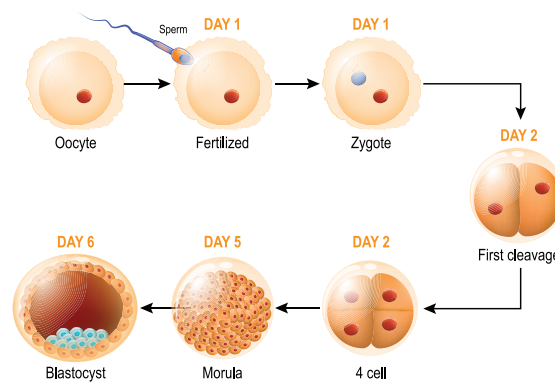


Figure 17.18 Developmental stages of zygote from cleavage to blastocyst formation

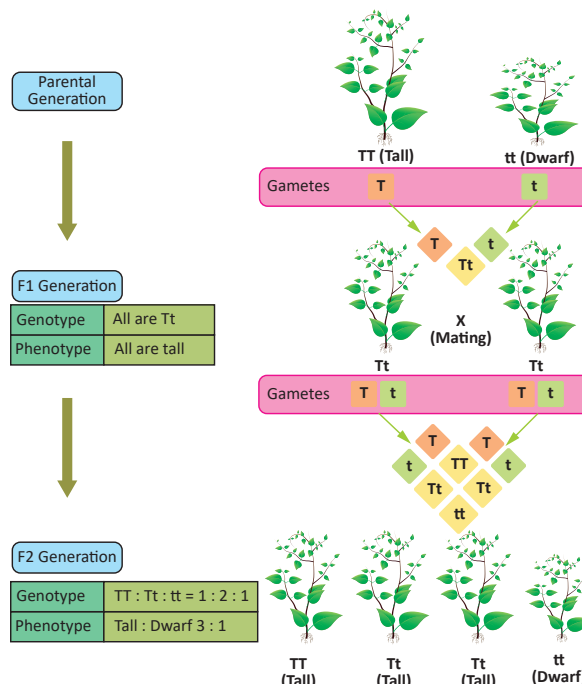


Figure 18.1 Monohybrid cross

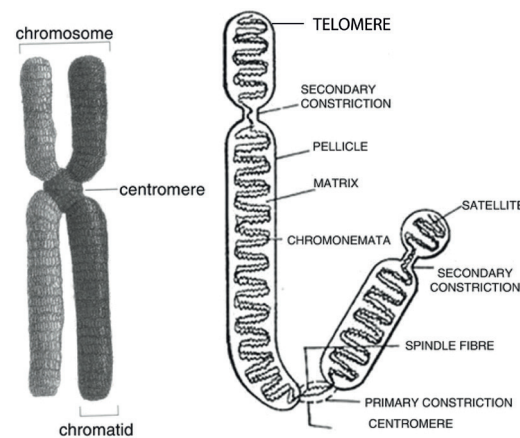
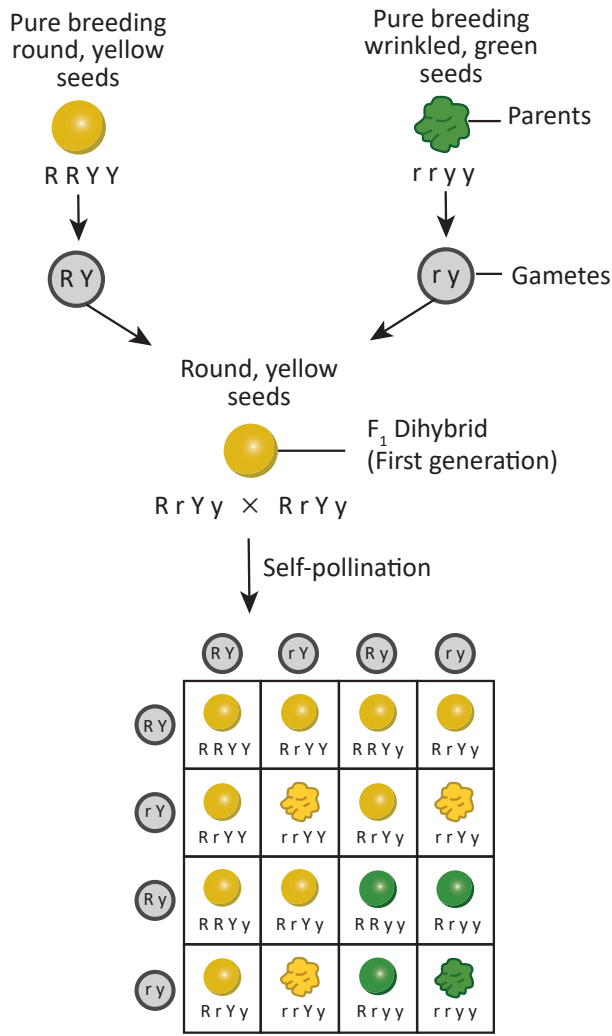


Figure 18.3 Structure of chromosome



Phenotypic ratio of F₂ generation - 9:3:3:1

Round, Yellow - 9 Wrinkled, Yellow - 3
 Round, Green - 3 Wrinkled, Green - 1

Figure 18.2 Dihybrid Cross

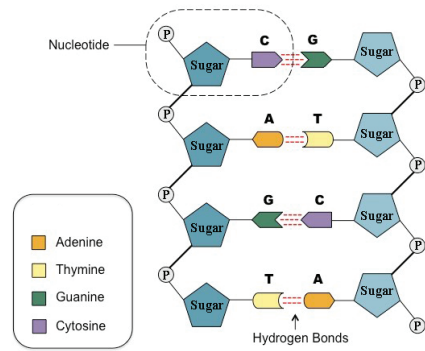


Figure 18.7 Nucleotides in a DNA

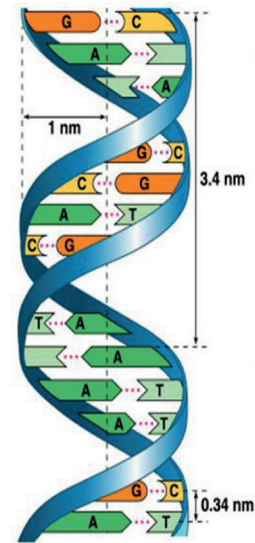


Figure 18.6 Structure of DNA

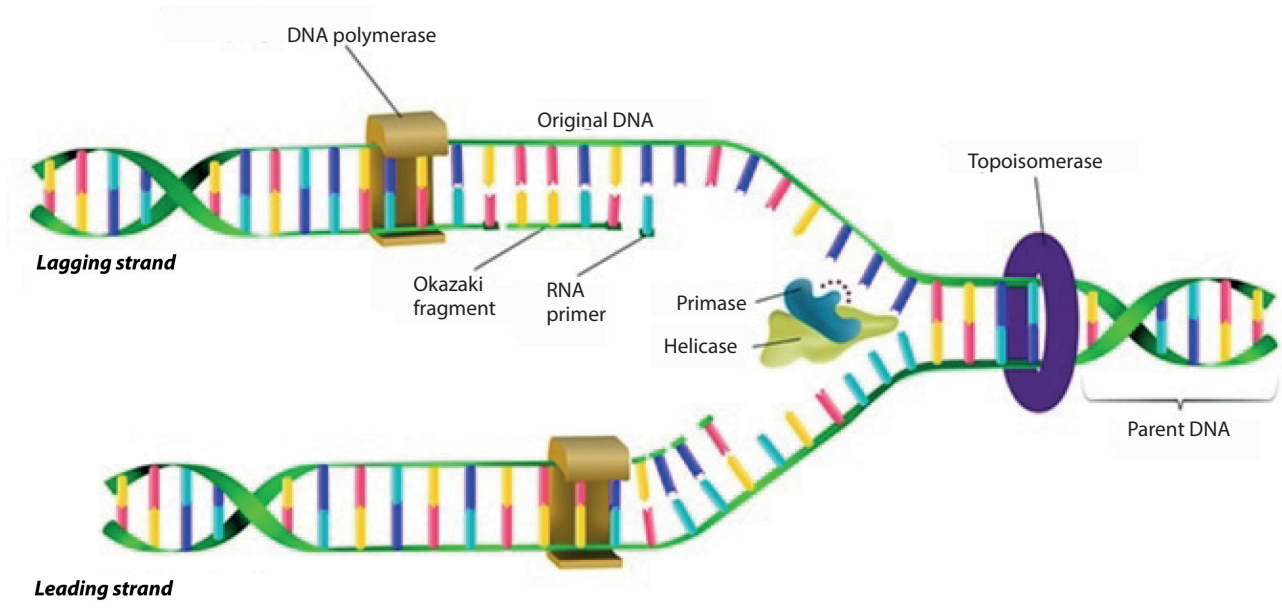


Figure 18.8 Replication of DNA

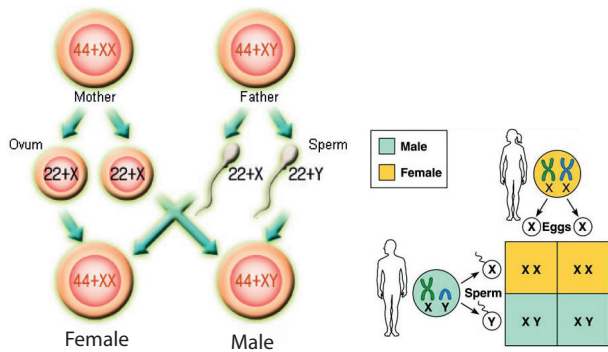


Figure 18.9 Sex determination in human

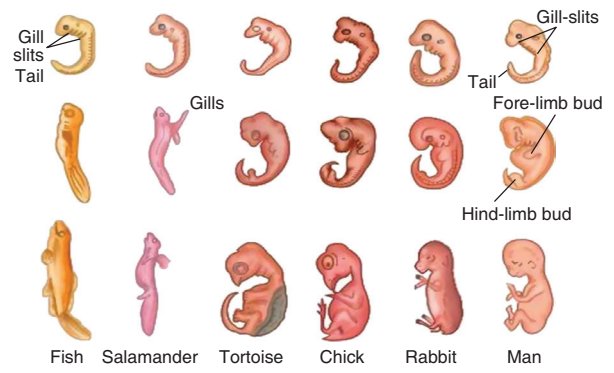


Figure 19.3 Embryonic development of vertebrates

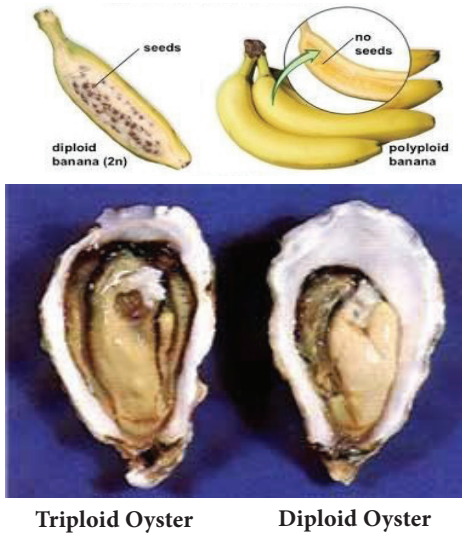


Figure 18.10 Euploidy

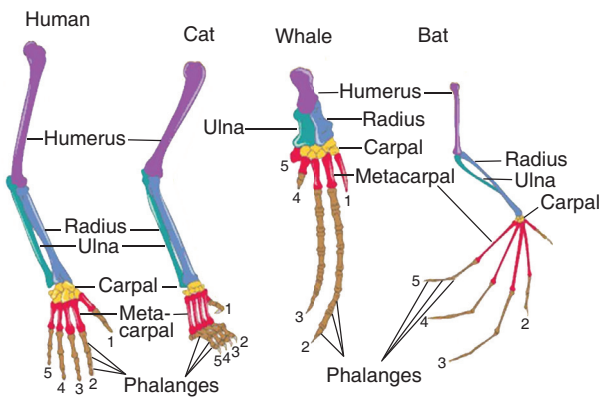


Figure 19.1 Forelimbs of vertebrates showing homologous structure

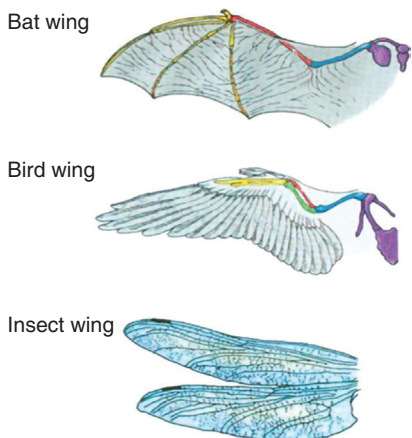
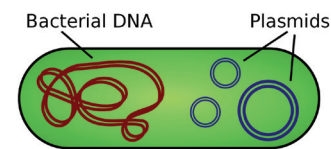


Figure 19.2 Analogous structure showing a bat wing, a bird wing and an insect wing



Figure 19.4 Archaeopteryx - Fossil bird



More to Know

Restriction enzymes recognise a specific base pair sequence (palindromic sequence) in DNA called as restriction site and cleaves the phosphodiester bond within DNA.

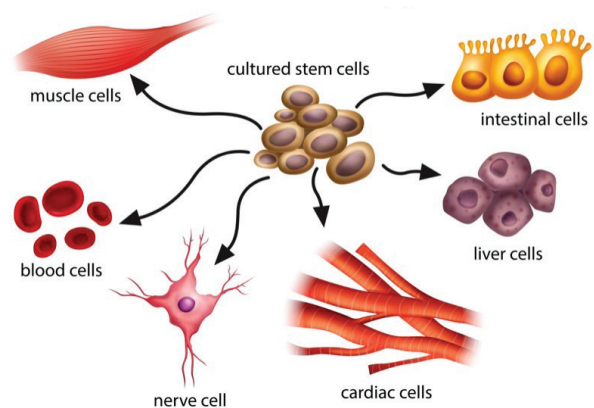
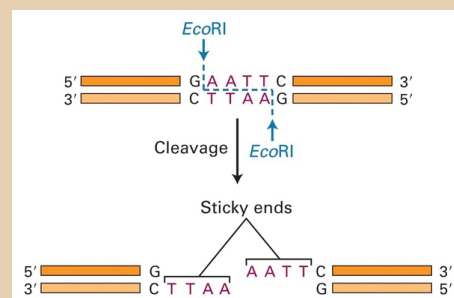


Figure 20.8 Differentiation of stem cells

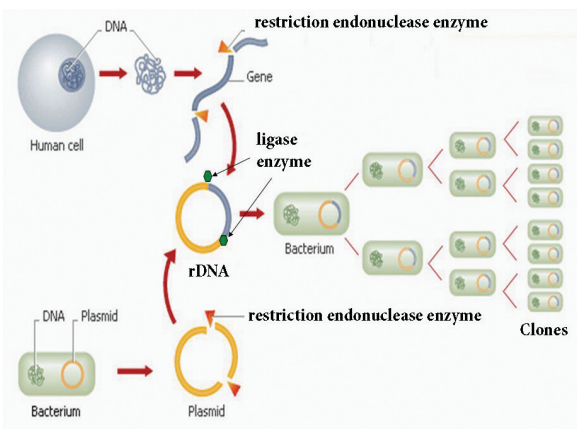
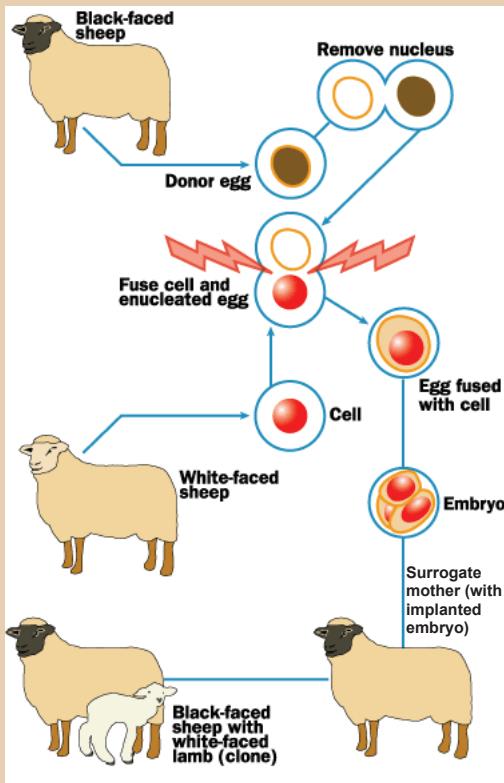


Figure 20.7 Genetic engineering technique (Gene cloning)

Info bits

Development of Dolly

Dolly was the first cloned female sheep, developed by Dr. Ian Wilmut and his colleagues at the Roslin Institute, Scotland in July 1996. She was created by somatic cell nuclear transfer technique. She lived for 6.5 years and died in 2003 because of lung disease.



More to Know

The National Commission for Protection of Child Rights (NCPCR) was set up in March 2007 under the Commissions for Protection of Child Rights (CPCR) Act, 2005. This act emphasizes the principle of universality and inviolability of child rights and recognizes the tone of urgency in all the child related policies of the country.

Protection of all children of all age group upto 18 years of age is of equal importance. Policies define priority actions for the most vulnerable children.



CHILD HELPLINE 1098

ALCOHOL: HOW DRINKING AFFECTS YOUR BODY

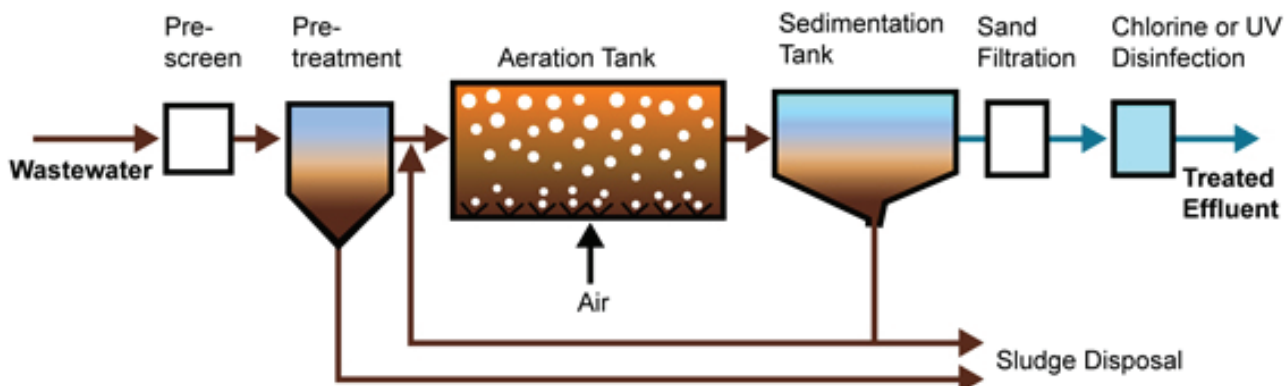
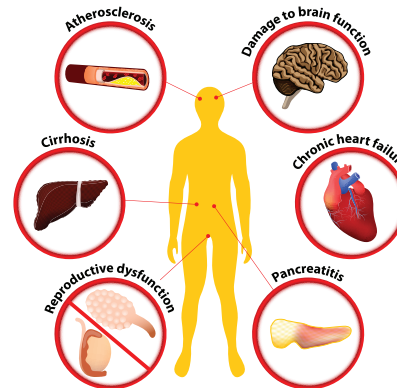


Figure 22.5 Conventional Wastewater Treatment