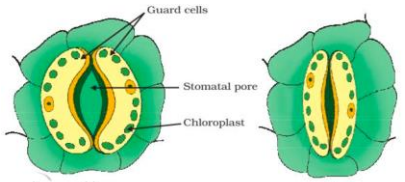
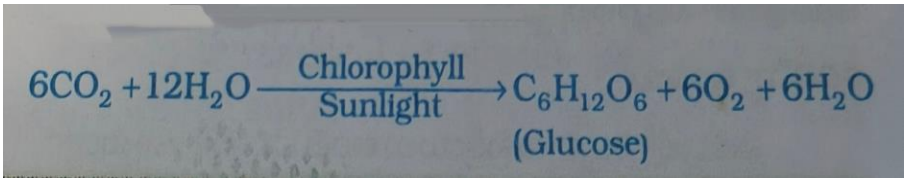
Important Keywords and their definitions

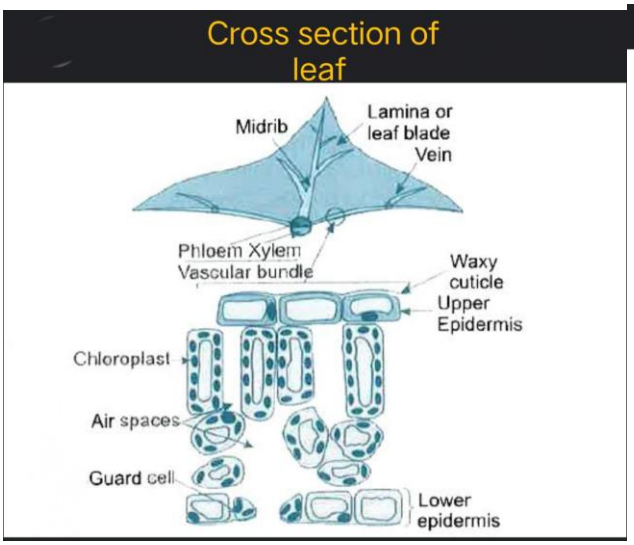
- Lesson Name: LIFE PROCESSES

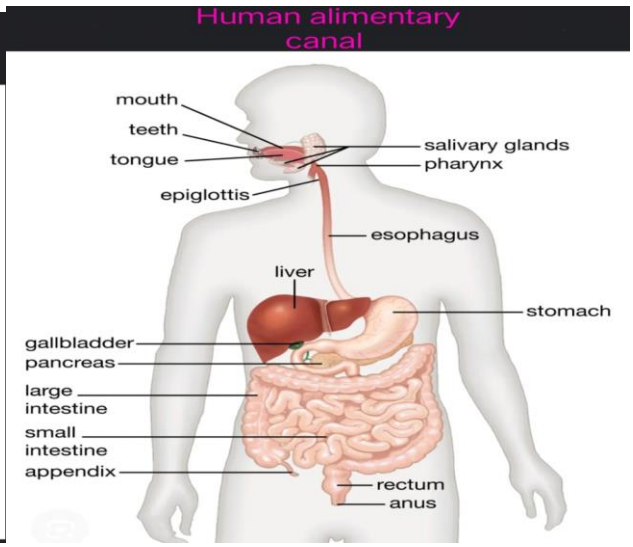
- Life processes:- Anabolic &catabolic reactions are called life processes.
  (Or) The processes which together perform maintain the work.
- Nutrition :- Intake of nutrients.
- Nutrients:- Energy providing substances in living organisms.
  Ex. Carbohydrates,proteins,fats,vitamins and minerals.
- Enzymes:- These are Bio-Catalysts made-up of proteins.
- Autotrophic Nutrition:- Manufacturing their own food from inorganic sources.ex.plants and some photosynthetic bacteria.
- Heterotrophic nutrition:- organisms depend on others for food.
  eg:-Animals
- Photosynthesis:- It is the process by which autotrophs take in substances from the outside and convert them into stored forms of energy. This material is taken in the form of carbon dioxide and water which is converted into carbohydrates and the presence of sunlight and chlorophyll.
- Chlorophyll:-photosynthetic pigment presence in leaves and tendered stems.
- Chloroplast:- site of photosynthesis. Contain a green colour pigment chlorophyll.
- Stomata:- Small pores presence in the lower side of leaf which are used as exchange of gases & transportation.
- 

  (a) Open and (b) closed stomatal pore
- Transpiration:- Excess water evaporates from the leaves through stomata.
- Photosynthesis equation:-
- 

- Saprophytic nutrition:- some organisms break down the food material outside the body and then absorb it.
  eg:-fungi
- Parasitic plant/depends on others for food:- Cuscuta.
- Digestion:- complex compounds converted into simple compounds used by enzymes.
- Human digestive tract:- It is a long tube extended from the mouth to the anus.

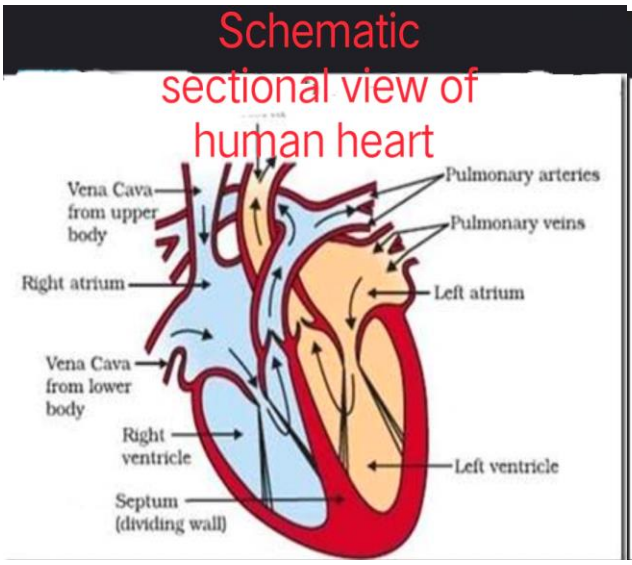
- Digestive glands:- duct glands produced enzymes.
- Mouth:- first part of the digestive system, which helps in take food.
- Oesophagus:- the food pipe helps in the transfer of the food from mouth down to the stomach throw the peristaltic moments.
- Stomach:- J-shaped bag like structure, which stores and partially digest the food entering through the food pipe.it secretes gastric juice.it contain strong acid HCL.
- Use of HCL in our stomach:- To kills microbes enter into our body through food.
- Intestine:- The main tube-like organ of digestion and absorption. The small intestine is longer in length than the large intestine.
- Liver:- the largest gland in our body. It secretes bile juice for emulsification of fats.no enzymes in bile juice.
- Respiration:- Breakdown the food & releases the energy.
- Aerobic respiration:- Using oxygen to break down the food & release the high amount of energy, carbon dioxide ,water vapour.
- Anaerobic respiration:- Breakdown the food without using oxygen & release small amount of energy, ethanol, carbon dioxide/lactic acid.
- ATP :- Adenosine tri phosphate. It is called as Energy currency of the cell.
- ADP :- Adenosine di phosphate
- Glycolysis:- Breakdown of glucose, a six-carbon molecule into a three -carbon molecule called pyruvate. This process takes place in the cytoplasm.
- Fermentation:- pyruvate may be converted into ethanol and carbon-di-oxide.
- Muscle Cramps:- oxygen debt in our muscle cells(muscle cells perform anerobic respiration), pyruvate converted into lactic acid which is also 3 -carbon molecules. accumulation of lactic acid in our muscles during sudden activity causes cramps.
- Diaphragm:- Muscular partition between thorax and abdomen.it forms the base of the chest cavity and helps in breathing.

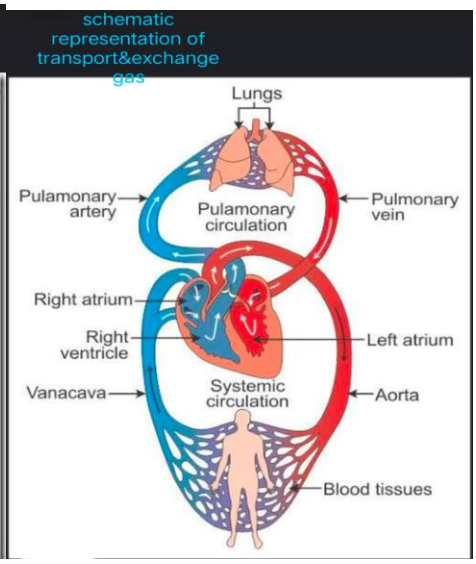




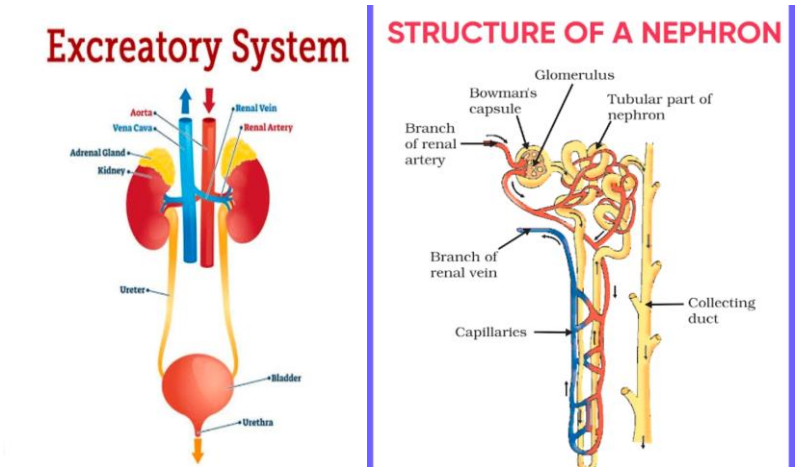
- Transportation:- The moment of material from one place to another by the medium.

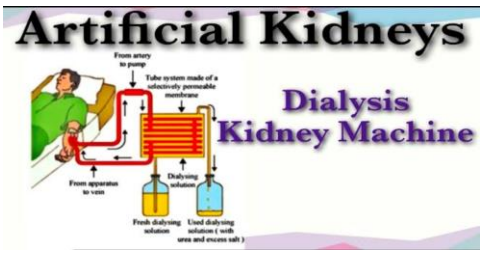
- Transportation in an organisms:- Process by which substances like food, oxygen, water, and waste products are carried from one part of the body to the other.
- Blood:- The fluid tissue that circulates in the heart,arteries,capillaries, and veins of a vertebrate animal carrying nourishment and oxygen to bring away waste products from the parts of the body.
- Connective tissue:- Is a type of a tissue in the body that connects supports and binds together outer tissues and organs.
- Heart:- The hallow muscular organ that pumps blood through the body of a vertebrate animal by contracting and relaxing.
- Aorta:- The largest artery in the body .It carries oxygen rich blood away from the heart to vessels that reach the rest of the body.
- Atrium:- A chamber in the heart, specifically the upper chambers ,which receive from the body.
- Ventricle:- A chamber of the heart which receives blood from an atrium and from which blood is forced into the arteries.
- Plasma:- the straw-coloured liquid portion of blood. It is made up of water, proteins ,salts and other substances.
- Oxygenation:- The process of adding oxygen to something particularly in the biological systems like the human body.
- Septum:- A dividing wall/membrane especially between bodily spaces are masses of soft tissue.
- Amphibians:- an organism that is able to live both on land and in water.
- Reptiles:- a class of cold - blooded air breathing vertebrates characterized by their scaly are bony skin, internal fertilization and omnitonic development.
- Gills:- the body part(Respiratory organ) that helps a fish breath under water.
- Vertebrate:- An animal that has a backbone and a skeleton.
- Pressure:- The force exerted perpendicularly and a surface per unit area.
- Systole:- The blood pressure when the heart is contracting.
- Diastole:- Relaxation of the heart during which its cavities expand and fill with blood.
- Hypertension:- A condition where your blood pressure consistently to high.
- Sphygmomanometer:- It is an instrument for measuring blood pressure.
- Lymph:- A clear watery fluid that circulates throughout the lymphatic system playing a vital role in the body's immune response and fluid balance.
- Diffusion:- The passive movement of molecules from an area of high concentration to an area of low concentration driven by their random kinetic energy.
- Capillaries:- Thin blood vessels throughout our body.





- Excretion:- The process by which organisms eliminate metabolic waste product and other harmful substances from their bodies.
- Kidney:- A vital paired organ responsible for filtering waste and excess water from the blood and regulating fluid and electrolyte balance in the body.
- Ureter:- The tube that carries urine from the kidney to the bladder.
- Urinary bladder:- A hallow, muscular organ that serves as reservoir for urine in the urinary system.
- Abdomen:- the front part of the torso between the thorax and pelvis in humans and in other vertebrates.
- Urine:- Fluid containing water and waste products.
- Filtration:- separation process that uses a porous barrier to separate solid particles from liquid or gas.
- Dialysis:- A medical procedure that acts as an artificial kidney, filtering waste products, and excess fluids from the blood when the kidneys are unable to do so on their own.
- Bowman's capsule:- A cup shaped, double -walled structure in the kidney.
- Nephron:- The basic structural and functional unit of the kidney.





- Name of the Lesson: Control and Coordination
- Stimulus: Something external that influences an activity.
- Response: The organism reacts to external stimuli.
- Example: If you accidentally touch a hot object, you automatically withdraw your hand. The heat of the heart object is the stimulus and you with driving your hand is the response to the stimulus.
- Neuron: It is a cell which is the fundamental unit of the brain and nervous system.
- Cell Body: It is a part of neuron. It has a nucleus contains genetic information maintaining the neuron structure and provides energy to drive activities.
- Dendrites: It is a part of neuron, tree like extensions that receive information from other neurons and transmitted to the cell body.
- Axon: It is a part of a neuron, long unbranched structure that carries electrical impulses from the cell body to the action terminals that pass the impulse to another neuron.
- Synapse: The gap between two neurons is known as synapse that allow signals to pass between them.
- Reflex: some sudden action in response to something in the environment. Example: I pulled my hand back from the flame reflex.

- Receptors: The specialized tips of nerve cells, they are usually located in our sense organs, such as the inner ear, the nose, the tongue and so on.
- Central Nervous System: The brain and the spinal cord are the central nervous system. They receive information from all parts of the body and integrate it.
- Peripheral Nervous System: Consisting of cranial nerves arising from the brain and spinal nerves arising from the spinal cord.

- Medulla oblangata: It is a part of the hind brain, controls blood pressure, salivation, and vomiting.
- Cerebellum: It is a part of the hind brain ;it is responsible for voluntary actions and maintaining the posture and balance of the body
- Tendrils: A tendril is a specialized stem, leaf or petiole with a threadlike shape used by climbing plants for support and attachment. They are sensitive to touch.
- Phototropism: Phototropism is the growth of an organism in response to a light stimulus. The plant grows towards light.
- Geotropism: Geotropism is the growth of an organism in response to the direction of gravity. The growth of plant roots is an example.
- Chemotropism: Chemotropism is the growth of an organism in response to the direction of chemicals. Example: The growth of pollen tube towards ovule.
- Hydrotropism: Hydrotropism is a plants response to a stimulus or gradient in water concentration that determines the direction of growth.
- Hormones: Hormones are complex organic substances that regulate and control many biological processes. They are secreted by cells and glands.
- Phyto hormones: The hormones which are secreted by plant cells.
- Auxin: It is a plant hormone which regulates growth of the shoot and root of the plant.

- Gibberellin: It is a phytohormone which promotes growth of the plant.

- Cytokinin: It is a Phyto hormone. It promotes cell division.

- Abscisic acid: It is a Phyto hormone. It inhibits growth.

- Adrenalin: It is hormone which is secreted by adrenal gland in many animals including human beings.

- Thyroxine: It is a hormone which is secreted by thyroid gland.

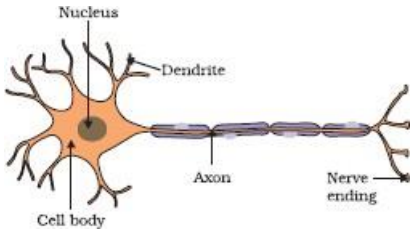
- Pituitary gland: It is a master gland and it secretes many hormones.

- Goiter (Swollen Neck): Iodine deficiency disease. Iodine is necessary for the thyroid gland to make thyroxine hormone.

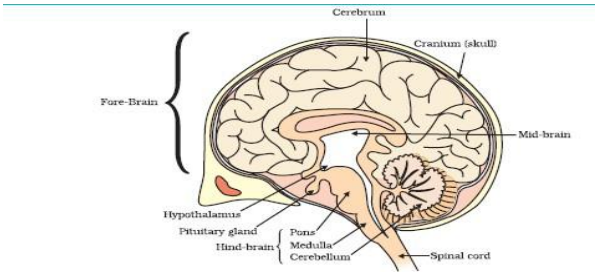
- Insulin: It is a hormone secreted by pancreas gland. It helps in regulating blood sugar.

- Practice diagrams

- Nerve cell



- Human Brain



- Reflex arc

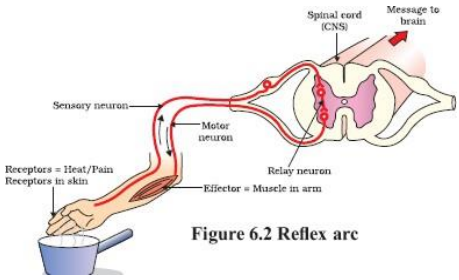


Figure 6.2 Reflex arc

- 7. How do organisms Reproduce?

- KEY WORDS & DEFINITIONS
- *Reproduction: The biological process by which new individual organisms are produced by their parents.
- Asexual Reproduction: A mode of reproduction in which only one parent is involved, and the offspring are genetically identical to the parent.
- Sexual Reproduction: A mode of reproduction involving two parents (male and female), leading to offspring that are genetically different.
- Binary Fission: A type of asexual reproduction where an organism splits into two equal parts. (e.g., Amoeba)
- *Budding: A form of asexual reproduction in which a new organism develops from an outgrowth or bud due to cell division. (e.g., Hydra, Yeast)
- Fragmentation: A type of asexual reproduction where an organism breaks into fragments, each capable of growing into a new individual. (e.g., Spirogyra)

- *. Regeneration: The process by which some organisms can regrow lost body parts or even form a new organism. (e.g., Planaria)
- Spore Formation: Asexual reproduction through special structures called spores, which can survive in harsh conditions. (e.g., Rhizopus - bread mold)
- Vegetative Propagation: A type of asexual reproduction in plants using parts like roots, stems, or leaves. (e.g., potato, bryophyllum)
- *Gametes: Sex cells (male - sperm, female - egg) involved in sexual reproduction.
- *Fertilization: The fusion of male and female gametes to form a zygote.
- Zygote: The single-celled result of fertilization, which develops into a new organism.
- *Sepals: Small, leaf shaped green coloured and outermost part of the flower.
- *Petals: Petals are modified leaves that surround the reproductive parts of flowers. They are often brightly colored or unusually shaped to attract pollinators.
- *Stamens: The male reproductive part of a flower.
- *Pistil: The female reproductive part of flower, which receives the pollen and produce seeds.
- *Bisexual flowers: Flowers having both the Stamen and Carpel are called bisexual flowers. Ex: Datura
- *Unisexual flowers: Flowers having either Stamens or Carpel are called unisexual flowers Ex: Bottle gourd, Papaya.
- *Pollination: The transfer of pollen from the anther to the stigma in plants, leading to fertilization
- *Self-pollination: Pollen is transferred to the stigma of the same flower
- *Cross Pollination : Pollen is transferred from one flower to another
- *Fertilization: Union of male and female gametes is known as fertilization.
- *Germination: The process by which a plant grows from a seed into seedling.
- Adolescence : A transitional of physical and psychological development that occurs during the period from puberty to adulthood.
- Puberty: The stage in human life when reproductive organs mature, and secondary sexual characteristics develop.

- *Scrotum: A pouch of skin containing the testicles
- *Testis: Male reproductive organ which produces male reproductive cells and male se harmones
- Testosterone: Male sex hormone
- Seminal vesicle: the glands that produce the fluids that will turn into semen.
- *Fallopian tube/Oviduct: The passageway through which the ovum passes from the ovary to the uterine body.
- *Ovary: Small oval shaped glands that are located on either side of uterus
- Uterus: An inverted pear-shaped muscular organ of the female reproductive system, located between the bladder and the rectum.
- *Cervix: A muscular tunnel-like organ which allows the fluids to pass between uterus and vagina
- *Vagina: The elastic, muscular part of female genital tract.
- *Foetus: The unborn offspring that develops from an animal embryo.
- Menstruation: Monthly cycle in females where the uterus sheds its lining if fertilization does not occur.
- *Placenta: An organ that connects the developing foetus to the mother's body for nutrient and
- waste exchange
- *Contraception: The prevention of pregnancy in women by preventing fertilization is called contraception.
- *Copper-T: T-shaped intrauterine device provides long-term birth control.
- *Vasectomy: The method of cutting and tying the vas differ is called vasectomy.
- *Tubectomy: The method of surgically blocking the fallopian tubes and are attached to either side of the uterus is called tubectomy.
- *Foeticide: The act of causing the death of foetus by destruction or aborting,
- Abbreviations
- *DNA: Deoxyribose Nucleic Acid
- STD: Sexually Transmitted Diseases

- *AIDS: Acquired Immunodeficiency syndrome
- *HIV: Human Immunodeficiency Virus

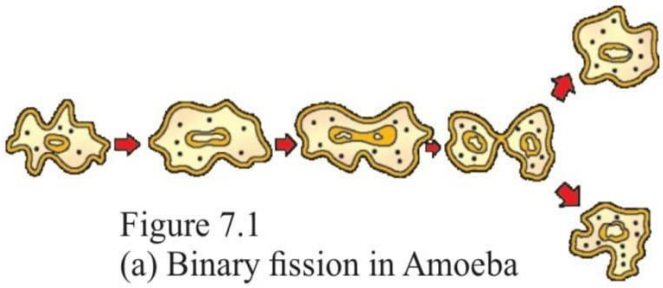


Figure 7.1
(a) Binary fission in Amoeba

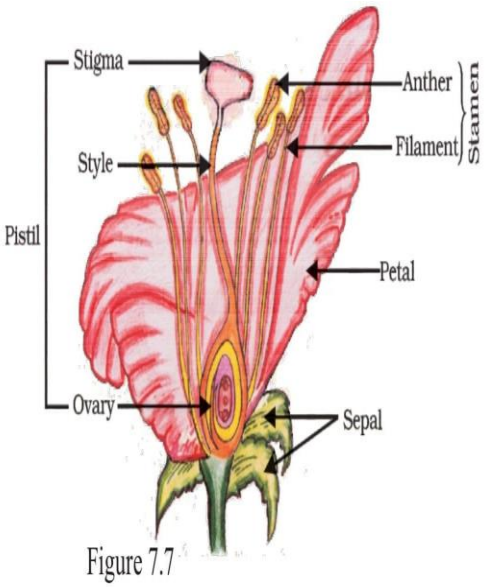


Figure 7.7
Longitudinal section of flower

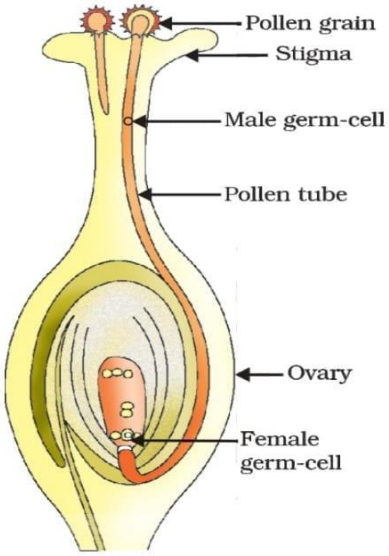


Figure 7.8
Germination of pollen on stigma

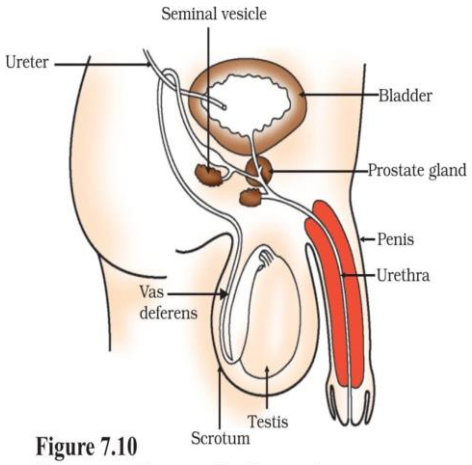
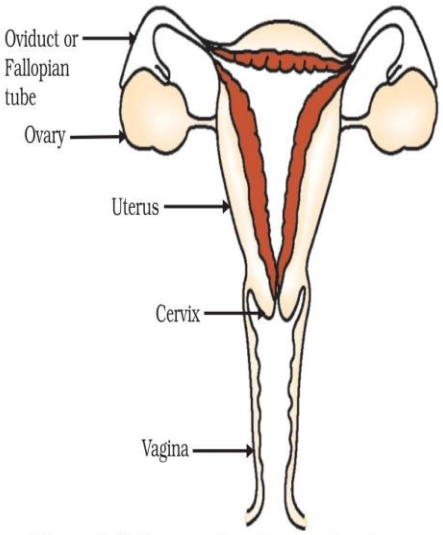


Figure 7.10
Human–male reproductive system



➢ **Figure 7.11 Human–female reproductive syster**

- Heredity
- Heredity describes how some tribes are passed from parents to their children.
- Genetics : genetics is the study of heredity, the process in which a parent passes the time genes onto their children. It means children inherit biological parents' genes that express specific tribes such as some physical characteristics, natural talents, and genetic disorders.
- Haploid : the condition of having only one set of chromosomes per cell (n)
- Diploid : the condition of having two sets of chromosomes per cell (2n).
- Gamete : a haploid sex cell in plants and animals. (Egg or sperm).
- Zygote : deployed cell resulting from the union of two gametes in sexual reproduction .
- Chromatin: the complex of DNA, RNA and proteins that makes uncondensed eukaryotic chromosomes.
- Chromosomes: structures within the nucleus of eukaryotic cells composed of chromatin and visible at cell division. (Condensed chromatin).
- Variations: differences that exist among individuals of the same population.
- Continuous variation: when a characteristic is controlled by a number of genes interacting with each other to give a range of phenotypes rather than to distinct groups, for example milk yield. 11. Progeny: refers to the offsprings that are produced.
- F1 progeny means the first generation of offsprings.
- Gene: a discrete unit of hereditary information that usually specifies a protein, a region of DNA located on a chromosome that specifies a trait. (Characteristics).
- Alleles : Genes governing variations of the same trait that occupy corresponding positions on homologous chromosomes alternative forms of a gene.
- Dominant Alleles: an allele that is always expressed when present regardless of whether the organism is homozygous and is heterozygous for that gene.
- Recessive Allele: an allele that is only expressed when the organism is homozygous for that Allele and not expressed when heterozygous.
- Homozygous: processing a pair of identical Alleles for a particular gene.
- Heterozygous: processing a pair of unlike alleles for a particular gene.
- Genotype: a genetic makeup (the assemblages of alleles) of an individual.
- Phenotype: the physical or chemical expression of an organism's genes.

- Carrier: a heterozygous individual not expressing a recessive trait but capable of passing it onto its offspring.
- Parent generation: the generation that supplies gametes to the filial generation.
- Filial generation(F2): the generation that receives gametes from the parental generation.
- Hybrid : An offspring resulting from the mating between individuals of two different genetic constitutions.
- Monohybrid cross: a genetic cross that considers the effect of alleles at a single locus.(Single gene)
- Dihybrid cross: a genetic cross that considers the effect of alleles at two separate loci.(Two different genes).
- Multiple Alleles: when character is controlled by two or more alleles the alleles are known as multiple alleles.
  Example: blood groups in human.
- Homologous chromosomes: chromosomes that are similar in morphology (shape and form) and genetic constitution, in animals one set comes from the father and the other from the mother.

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• OUR ENVIRONMENT

- Environment: The surroundings in which an organism lives.
- Ecosystem: A community of living organisms (biotic factors) interacting with their physical environment (abiotic factors).
- Biotic Factors: Living components of an ecosystem (plants, animals, microorganisms).
- Abiotic Factors: Non-living components of an ecosystem (sunlight, water, air, soil, temperature).
- Producers: Organisms that make their own food (e.g., plants through photosynthesis).
- Consumers: Organisms that obtain energy by feeding on other organisms (herbivores, carnivores, omnivores, parasites).

- Decomposers: Organisms that break down dead organic matter (bacteria, fungi).
- Food Chain: A linear sequence of organisms where each organism is eaten by the next organism in the chain.
- Food Web: A network of interconnected food chains in an ecosystem.
- Trophic Levels: The position an organism occupies in a food chain or food web.
- Energy Flow: The movement of energy through an ecosystem.
- Biodiversity: The variety of life in a particular habitat or ecosystem.
- Pollution: Contamination of the environment with harmful substances (air, water, soil).
- Air Pollution: Contamination of the atmosphere with pollutants (e.g., smoke, gases).
- Water Pollution: Contamination of water bodies with harmful substances (e.g., sewage, industrial waste).
- Soil Pollution: Contamination of soil with harmful substances (e.g., pesticides, industrial waste).
- Waste Management: Collection, transportation, processing, and disposal of waste materials.
- Biodegradable Waste: Waste that can be broken down by natural processes.
- Non-biodegradable Waste: Waste that cannot be easily broken down by natural processes.
- Bio magnification: the process where the concentration of a substance, such as a pesticide or heavy metal, increases in the tissues of organisms at successively higher levels in a food chain.
- Plastic Pollution: Pollution caused by the accumulation of plastic waste.
- Deforestation: Clearing of forests for other land uses.
- Global Warming: The long-term increase in Earth's average surface temperature.
- Climate Change: Long-term shifts in temperatures and weather patterns.
- Ozone Depletion: Thinning of the ozone layer in the Earth's atmosphere.
- Resource Depletion: The overuse and exhaustion of natural resources.
- Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

- Conservation: Protection and preservation of natural resources and ecosystems.
- Renewable Resources: Resources that can be replenished over time (e.g., solar, wind, water).
- Non-renewable Resources: Resources that exist in finite quantities and cannot be easily replenished (e.g., fossil fuels).
- Reduce, Reuse, Recycle (3Rs): Principles for minimizing waste and conserving resources.
- Afforestation: Planting of trees in areas where there was no previous forest cover.
- Wildlife Conservation: Efforts to protect and manage wild animal populations and their habitats.

- Abbreviations
  - ppm: Parts per million (often used to measure pollutant concentrations)
  - ppb: Parts per billion (often used to measure very low pollutant concentrations)
  - UV: Ultraviolet (radiation from the sun, relevant to ozone depletion)
  - GHG: Greenhouse Gas (e.g., CO_2, methane (CH_4), nitrous oxide (N_2O))
  - CFCs: Chlorofluorocarbons (ozone-depleting substances)
  - IUCN: International Union for Conservation of Nature (important for biodiversity and conservation efforts)
  - UNEP: United Nations Environment Program(global environmental organization)
  - WWF: Worldwide Fund for Nature (a prominent conservation organization)

Chapter : 1 Nutrition-1 Class: 10

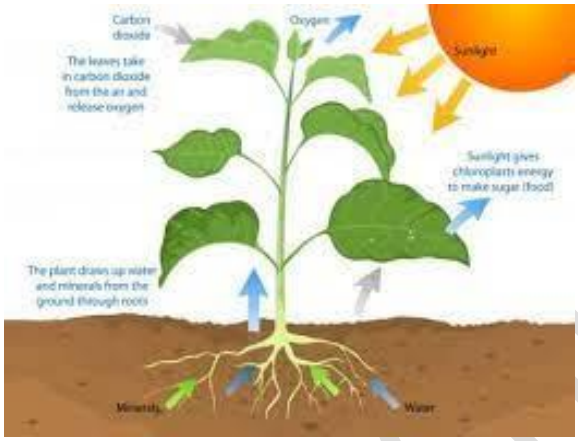
KEYWORDS:

GLUCOSE, STARCH, CELLULOSE, CHLOROPLAST, GRANA, STROMA, LIGHT REACTION, DARK REACTION, HETEROTROPHIC NUTRITION, PARASITIC NUTRITION, HAUSTORIA.

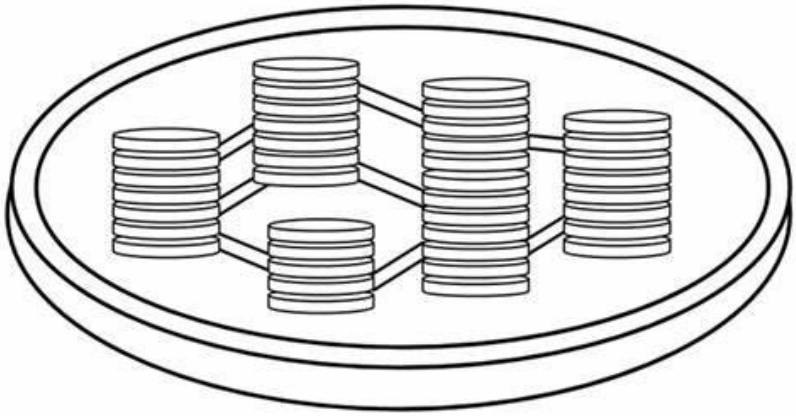
Arrange the above keywords in a chronological order…

Where do we get our food from?

Identify the process shown in this diagram:



Draw the diagram and colour it.



Chloroplast

Chapter: 1 Nutrition-2 Class: 10

KEYWORDS :

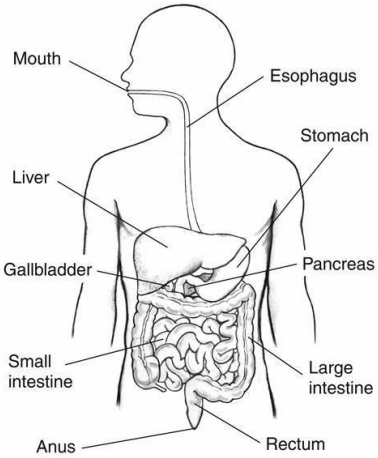
ALIMENTARY CANAL, SALIVARY GLANDS, PERISTALTIC MOVEMENT, AMYLASE, PTYALIN, PEPSIN, CHYME, SPHINCTER, DIGESTION, PANCREAS, ENZYMES, VILLI, BILE JUICE, LIPASE, FAT, LIVER, EMULSIFICATION.

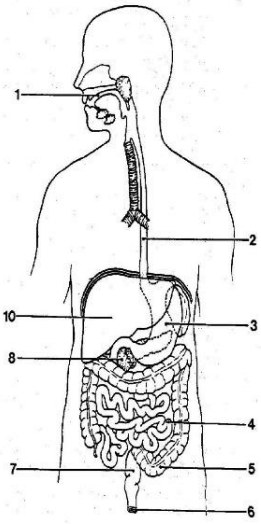
Write Above Keywords In A Chronological Order:

Open your mouth in front of mirror and Write the names of the parts present in your Mouth:

Where does the food go and what happens?

Observe the diagram and identify the parts





What is the healthy food for our health?

D A L I T C E A N E A B D Rearrange the letters and identify the right word and write down in the given box.

Colour the diagram and write your favourite food items?

Chapter: 2 **RESPIRATION – 1** **Class: 10**

Word Search

H	N	Y	C	H	C	E	S	B	Y	N	Q	T	Q	Y	Y	J	C
E	L	N	A	Z	B	Y	Z	R	E	Z	Z	N	M	E	C	N	P
P	A	H	T	D	R	K	U	O	I	M	Y	I	D	A	I	X	S
I	O	P	A	N	O	A	G	N	Q	C	V	E	O	N	H	X	S
G	U	Y	B	D	N	L	U	C	W	B	A	Z	T	A	W	A	T
L	R	R	O	J	C	V	L	H	P	D	Q	O	R	B	J	S	B
O	C	U	L	T	H	E	Y	I	Q	L	N	K	A	O	W	O	V
T	W	V	I	H	I	O	R	O	B	N	R	T	C	L	H	C	R
T	D	A	C	I	Y	L	C	L	E	W	T	E	H	I	B	E	N
I	X	T	F	U	Q	I	N	E	W	J	R	S	E	C	S	T	K
S	A	E	O	K	R	J	I	S	A	J	Y	X	A	Q	L	W	H
H	J	V	Y	M	M	P	T	D	I	T	A	H	I	G	K	U	V

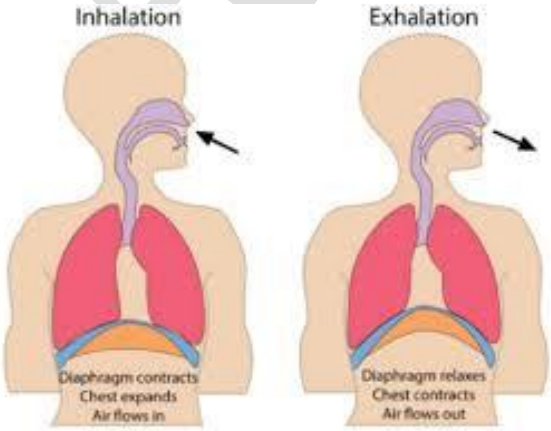
Find the following words in the puzzle.
Words are hidden → ↓ and ↘ .

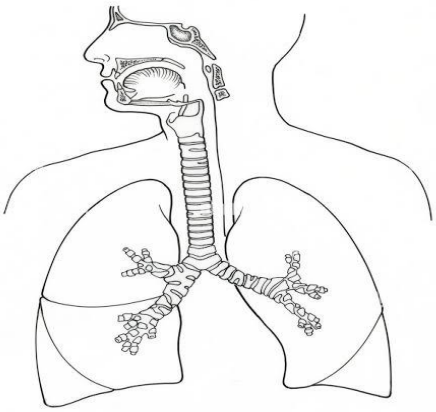
ALVEOLI
ANABOLIC
BRONCHI
BRONCHIOLES
CATABOLIC
EPIGLOTTIS
PYRUVATE
TRACHEA

Read the fallowing and write your opinion using hint given….

- Plants gives us_____(Oxygen / Carbon dioxide)
- Close your mouth and nose for few seconds do you comfortable without breath (Yes/No)
- Arrow marks showing _____

Draw the diagram





Chapter : 2 RESPIRATION – 2 **Class: 10**

Keywords:

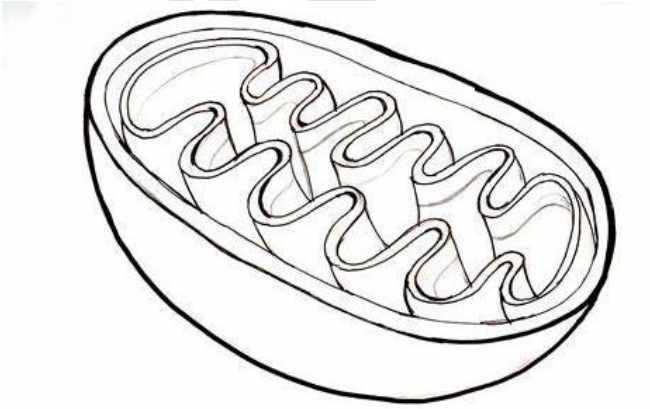
Aerobic respiration, Anaerobic respiration, Alveoli, Trachea, Bronchi, Bronchioles,

Epiglottis, Pyruvate, Anabolic, Catabolic.

Choose your favourite colour and write which keyword is inserted.

Write the parts of the diagram given.

Draw the picture given bellow



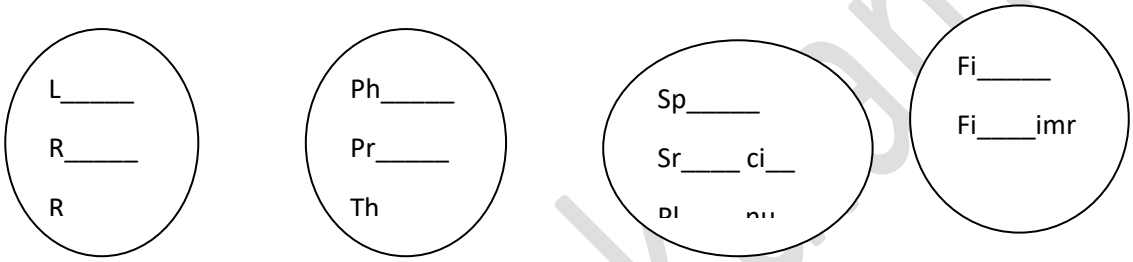
Mitochondria

Chapter : 3 **Transportation -1** **Class: 10**

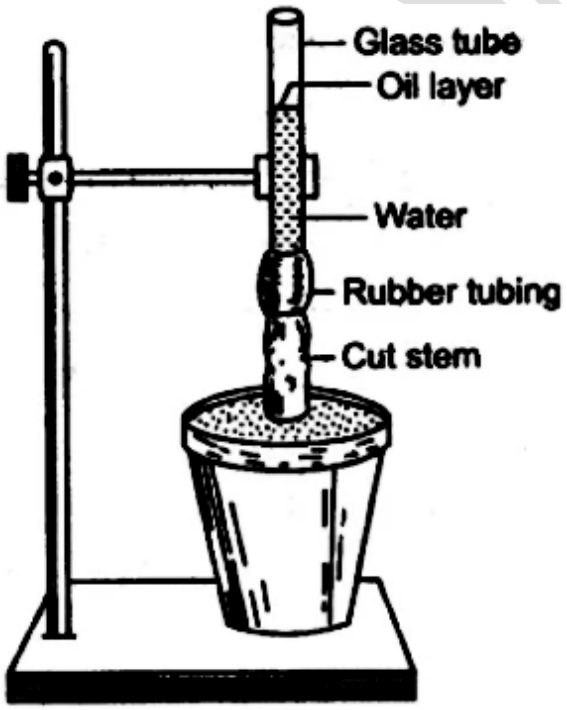
Key words : **Lymph, Single, Circulation, Coagulation, Sphygmomanometer, Prothrombin , Thrombin ,Fibrinogen, Fibrin, Root hair, Radical, plant nutrients, xylem, phloem,**

Fun Activity

Fill the circles with key words



Draw the Diagram and color it :



Root Pressure experiment.

Chapter : 3 **Transportation -2** **Class: 10**

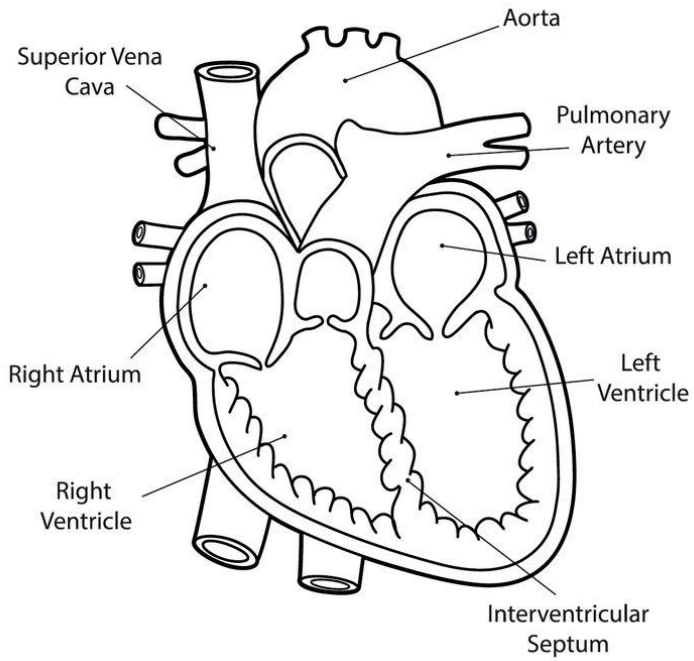
Key words:

Circulation, Auricles, Ventricles, Pulse, Arty, Vein, Stethoscope, Aorta, Capillary, Systole, Diastole, Cardiac Cycle, Blood Pressure,

Fun Activity: Fill the boxes with key words

Draw and colour the diagram:-

HEART ANATOMY



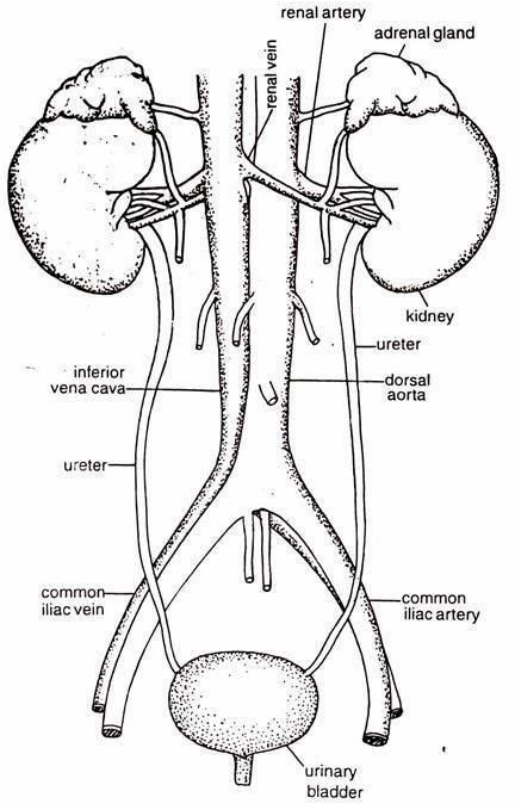
Chapter: 4 **Excretion** **Class: 10**

keywords:

Creatinine, tubular fluid, peritubular, podocyte, glomerulus, PCT, DCT, calyces, micturition, urochrome, dialyzer, anticoagulant, alkaloids

Fun activity: Arrange the keywords in alphabetical order.

Draw and colour the diagram



Chapter: 4 **Excretion -2** **Class: 10**

keywords:

HYPER-OSMOTIC INTESTINAL FLUIDS, AFFERENT ARTERIOLE, EFFERENT ARTERIOLE, HAEMODIALYSIS, NEPHRIDIA, TRIGLYCERIDES, BILIRUBIN, ALBUMIN, EXCRETION, MALPIGHIAN BODY, QUININE, NICOTINE, RESERPINE, NITROGENOUS wastes.

fun activity

Fill the missing letters to form keywords.

N_P_ _ID_A

EX_R_T_ _N

_IC_ T_N_

B_L_ _UB_N

A_T_R_O_E

Draw and colour the diagram.

Chapter: 5 **Co ordination – The linking system -1** **Class: 10**

Key words:

Response, Stimuli, Neuron, Axon, Synapse, Afferent or Sensory nerve, Efferent or Motor never, Association nerves, Central nervous system, Brain, Spinal cord, Cerebrospinal fluid, Peripheral nervous system, Insulin, Hormones, Endocrine glands, reflex arc, feed back mechanism.

Fun Activity:

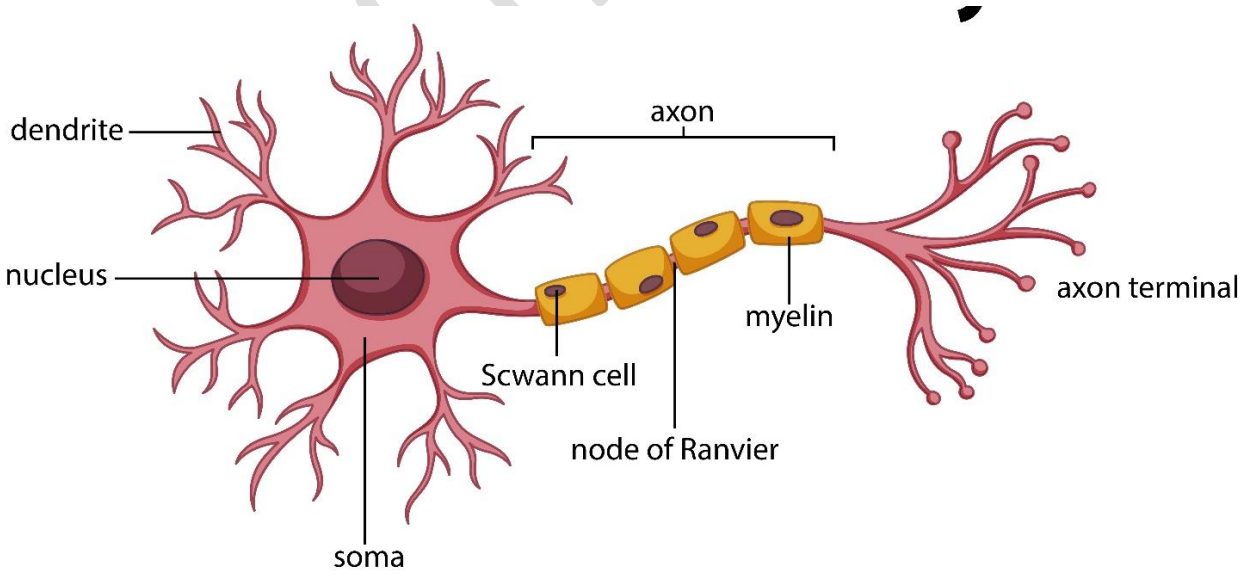
1. E----- g----- 2. S-------u----- 3. A--x--- 4. C-------- n-------s-----

5. P----n----s---- 6. S-------- n----- 7. M------- n------- 8. P------ N----- S-----

9. H-----n----- 10. E----- G---------- 11. F-----b-----m------- 12. I----s----n

13. R..... A..... 14. C------S---- F------ 15. R-------P------

Draw and labelled the diagram of neuron.



Chapter: 5 **Co ordination – The linking system: 2** **Class: 10**

Key words:

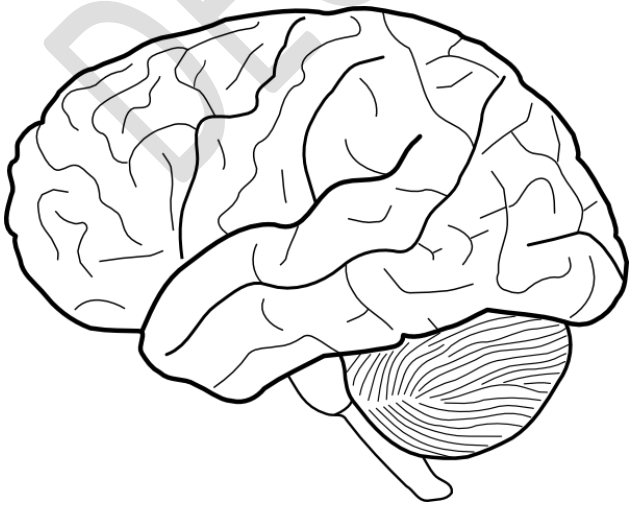
Plant hormones, Tropic moment, Nastic moment, Pulvini, Auxins, Cytokinins, Gibberellins, Abscisic acid, Ethylene, Impulses, Phototropism, Geotropism, Hydrotropism, Thigmotropism, Chemotropism.

Fun Activity:

Identify the key words below the puzzle.

C	H	E	M	O	T	R	O	P	I	S	M	D	F
Y	O	T	H		R	K	B	U	M		S	X	J
T	R	H	A	M	O	T	N	L	P	S	I	M	T
O	M	Y	Z	S	P	G	A	V	U	N	P	S	N
K	O	L	N	I	I	C	S	I	L	I	O	I	E
I	N	E	R	P	C	D	T	N	S	L	R	P	M
N	E	N	M	O	M	R	I	I	E	L	T	O	O
I	S	E	W	R	O	T	C	V	S	E	O	R	M
N	N	L	C	T	M	Y	M	H	Z	R	E	T	C
S	I	Q	F	O	E	U	O	O	R	A	G	O	I
X	X	N	W	T	N	I	M	P	Y	B	Z	R	P
M	U	U	S	O	T	O	E	G	H	B	Q	D	O
P	A	J	C	H	K	L	N	D	S	I	W	Y	R
O	M	S	I	P	O	R	T	O	M	G	I	H	T

Draw and colour the Brain diagram.



Chapter: 6 **Reproduction** **Class: 10**

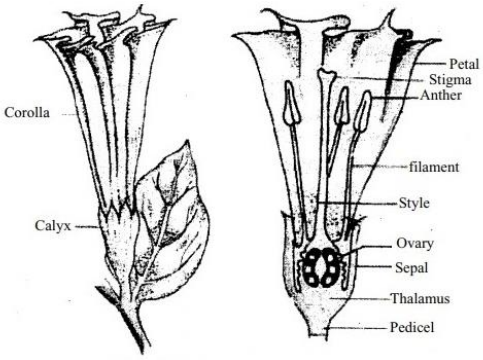
Key Words

Fragmentation ,Parthenogenesis, Tissue Culture, Placenta, Grafting Umbilical Cord, Chromosome, Mitosis, Meiosis

Fun Activity

Write key words in alphabetical order

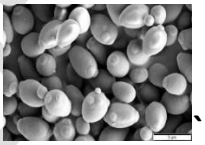
I. Draw the diagram and colour it

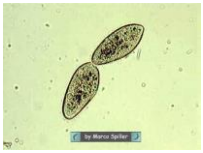


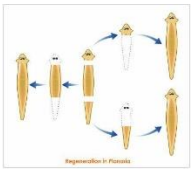
FunActivity

Arrange these words against the suitable diagrams.

Regeneration	Budding	Binary Fission	Propagation through leaves







Chapter : 6 **Reproduction-2** **Class: 10**

Keywords:

layering, grafting, stock, scion, desirable characters, tissue culture, amniotic

Word Scramble

AGIRELNY	_____
FIARGNTG	_____
SKTOC	_____
ISONC	_____
IBEERSADL ARCRACTESH	_____
SSTIEU RUUELTC	_____
MINITOAC UFDLI	_____
CPANEALT	_____
LBCUMLIAI DRCO	_____
MOSIITS	_____
IOISEMS	_____
OTARMCIHD	_____
ORSMOCOMHE	_____
TDEEOCFII	_____
DAIHVSI	_____
YTSVECAOM	_____
CTTMEOUYB	_____

fluid, placenta, umbilical cord, mitosis, meiosis,

chromatid, chromosome, foeticide, HIV-AIDS, vasectomy, tubectomy

Solve the above scrambled words with the help of keywords.

Picture A (Mitosis)

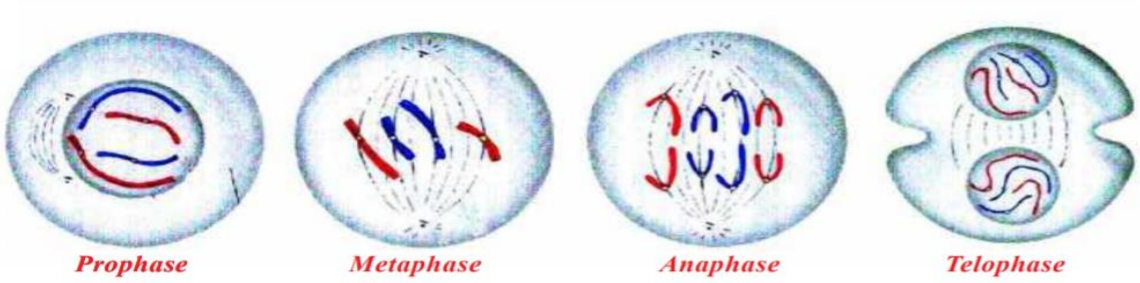


fig-29: Mitosis

Picture B (Meiosis)

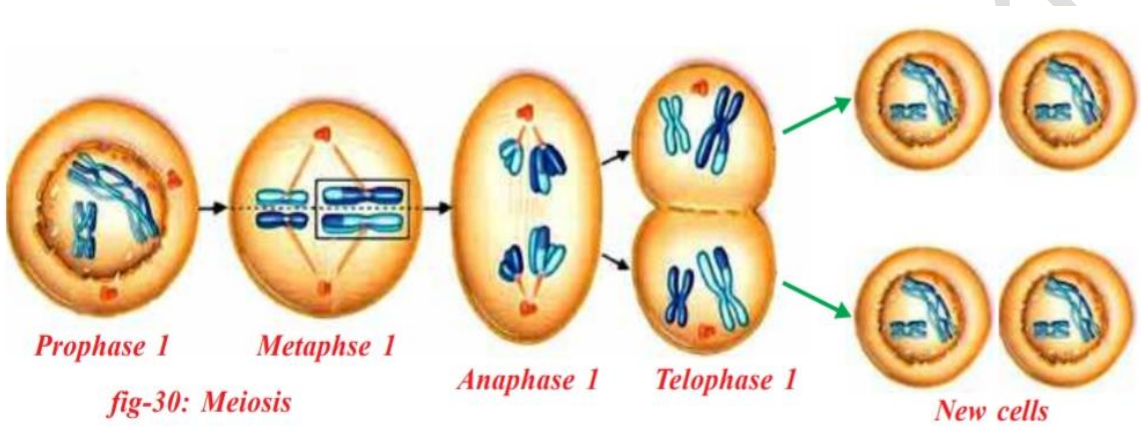
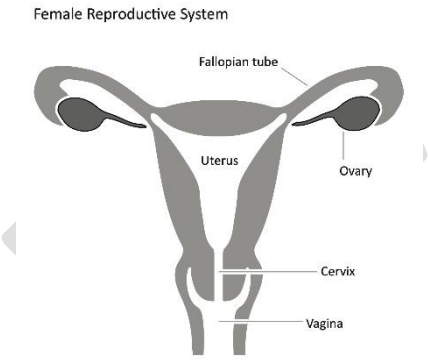
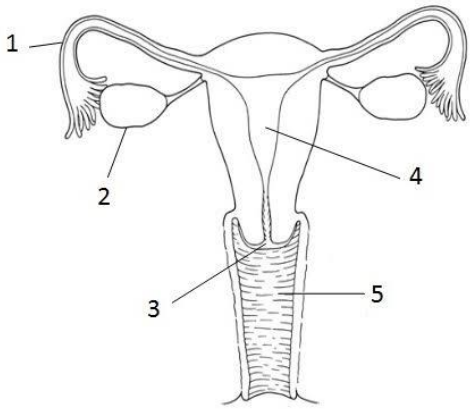


fig-30: Meiosis

- How many cells formed at the end of Mitosis (Picture A)_____
- How many cells formed at the end of Meiosis (Picture B)_____





Observe the right side diagram and lable the left side diagram.

Chapter 7 – coordination in life process

Class: 10

key words

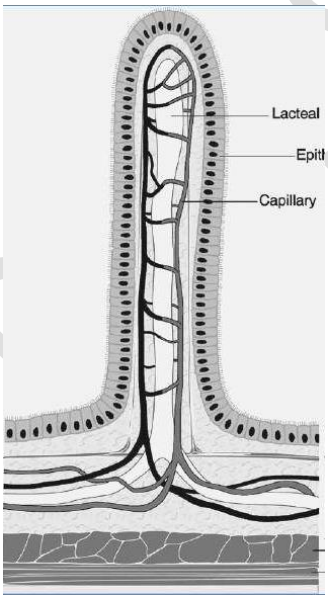
1. Peristalsis
2. Longitudinal Muscles
3. Chyme
4. Secretin
5. Cholecystokinin
6. Villi
7. Neuro transmitters
8. Second Brain
9. Entric nervous system
10. Interdependent
11. Spincter
12. Diaphram

Fun Activity

Identify the key words from the given grid

A	E	D	C	B	B	C	D	A	Z	M	Z
B	D	A	M	O	H	G	H	J	B	C	S
C	I	L	B	K	M	K	G	T	A	M	E
E	A	X	D	C	H	Y	M	E	G	H	C
B	P	D	B	H	K	B	C	D	M	K	R
C	H	P	Q	M	N	S	G	V	X	Y	E
N	R	G	E	N	T	E	R	I	C	Q	T
H	A	H	P	V	M	C	N	I	G	V	I
V	G	S	P	H	I	N	C	T	E	R	N
X	M	J	P	M	V	I	K	I	L	H	M

Draw and label the diagram of villus



Chapter: 7 – **Coordination in life process** **Class: 10**

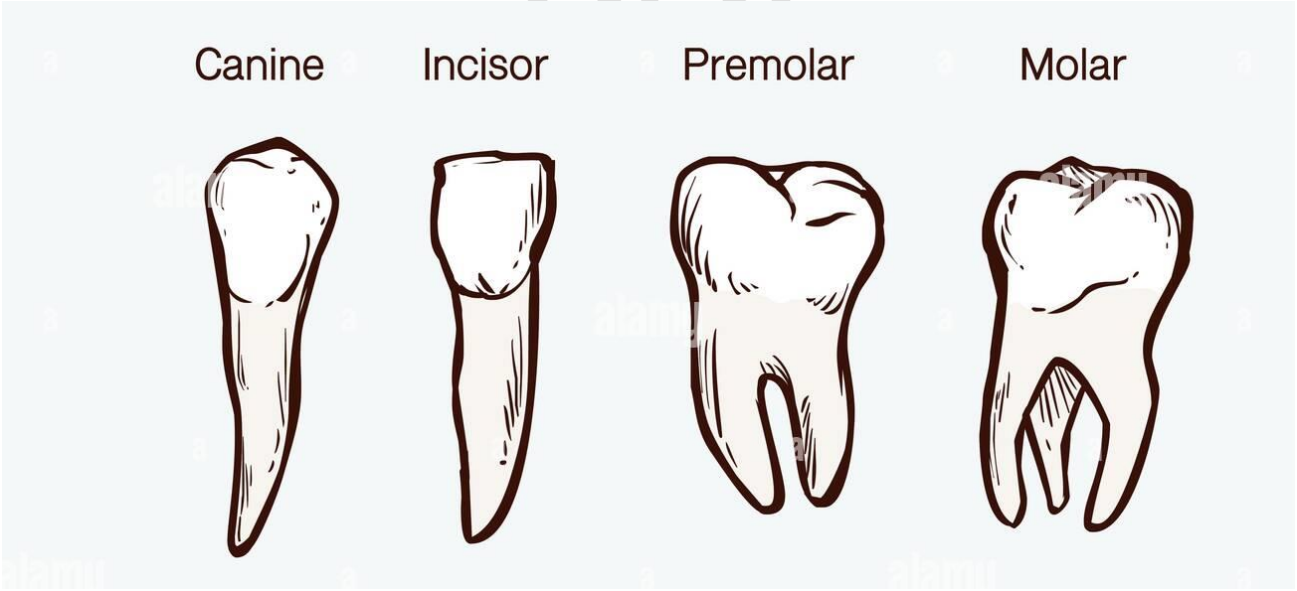
key words.

1. Ghrelin
2. Diencephalon
3. Vagus Nerve
4. Chewing
5. Brain stem
6. Papillae
7. Dental formula
8. Circular muscles
9. Mastication
10. Surface muscle
11. Nocturnal and diurinal animals
12. Tincture Iodine

Fun Activity

Rewrite the key words in an alphabetical order

Draw and color human dentition diagram



Chapter : 8 **Heredity** **Class: 10**

Key words :

variations, offspring's, traits, phenotype, genotype, heterozygous, homozygous

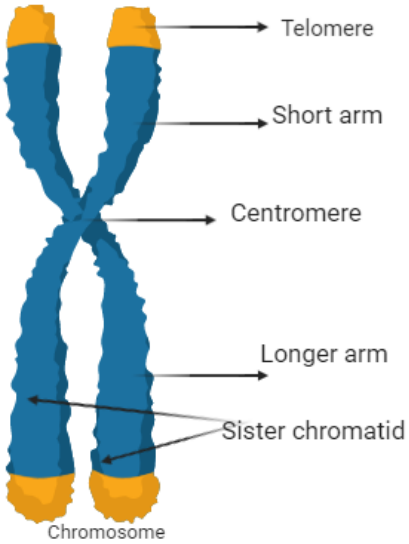
Fun Activity : Fill in the blanks in circle with suitable key words

V-------
Off-----

P-------
g------

ho----
in------
ass------

Draw and colour the diagram

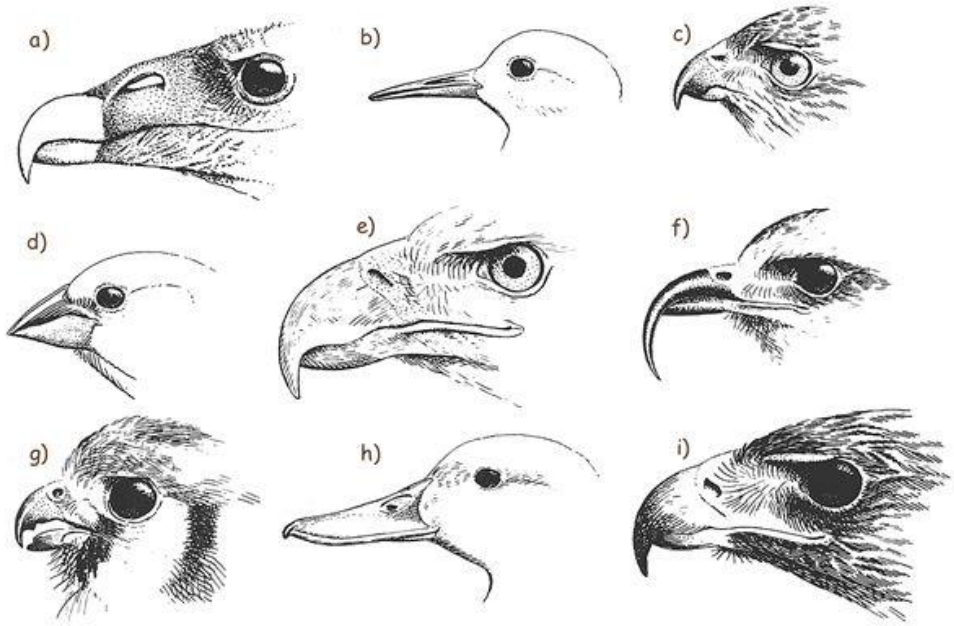


Chapter : 8 **Heredity – 2** **Class: 10**

Key words : Allele, Heredity, autosomes, allosomes natural selection, analogous organ , Embryological evidences, evolutions

Fun Activity : Fill the ladder with key words

Draw and colour the diagram:-

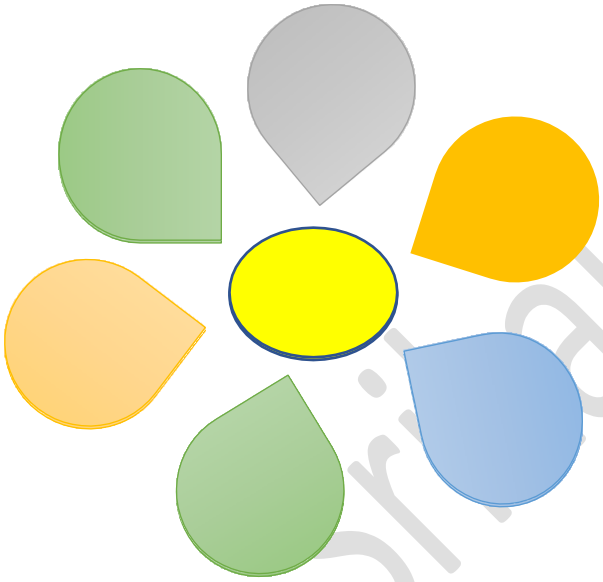


chapter :9 Our environment – Our concern-1 CLASS: 10

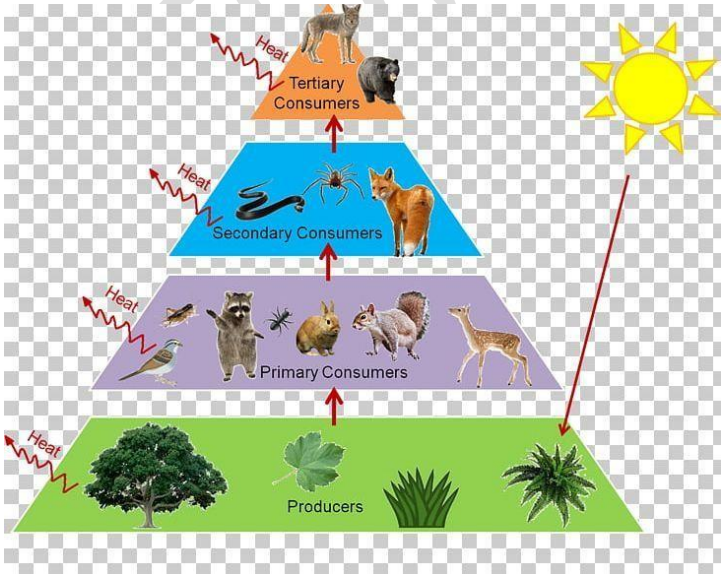
key words:

1.ABOITIC, ANTHROPOGENIC ACTIVITIES, BIOACCUMULATION, BIOCHEMICAL OXYGEN DEMAND(BOD), BIOFUELS, BIOLOGICAL CONTROL, BIOMAGNIFICATION, BIOMASS , BIOSPHERE, BIOTIC FACTORS, CARNIVORE, CONSUMERS, DISSLOVED OXYGEN(DO), ECOFRIENDLY ACTIVITIES, ECOLOGICAL PYRAMIDS.

Fun Activity: fill the key words in the balls start with Bio.



draw and colour the pyramid



Chapter :9 : Our environment-Our concern-2 Class: 10

Key words:

ECOSYSTEM, ENIVIRONMENTAL ETHICS, EUTROPHICATION, FOOD CHAIN , FOOD WEB, GENETIC STRAINS, HABITAT, HERBIVOURS, PRODUCERS, INVERTED, NICHE, PESTICIDES, ROTATION OF CROPS, TROPHIC LEVELS.

Fun Acvtivity:

SYSECOTEM:_____

RONENIVITALMEN:----------

ROPTIONEUTROHICA----------

INCHAODFO:----------

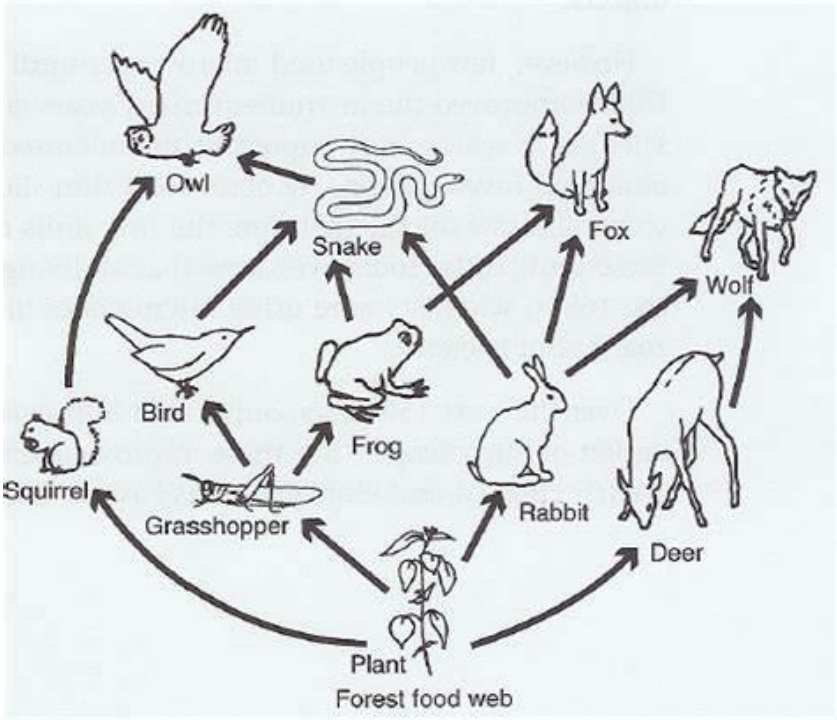
TATIONRO:----------

DUCERSPRO:----------

ICIDESPEST:----------

PHICLEVESTRO:----------

Draw the diagram and colour it.



Forest food web

2. Make another food web of your own idea.