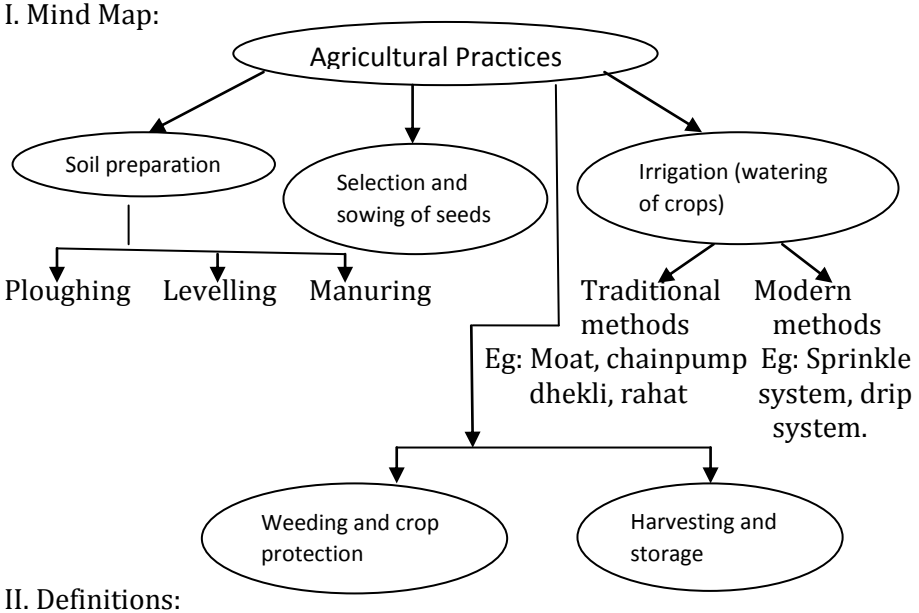
EVERWIN VIDHYASHRAM

VIII Science

LN 1 CROP PRODUCTION AND MANAGEMENT

I. Mind Map:



II. Definitions:

a. Irrigation: The supply of water to crops at different intervals is called irrigation.

b. Ploughing: The process of loosening and turning of the soil is called ploughing or tilling

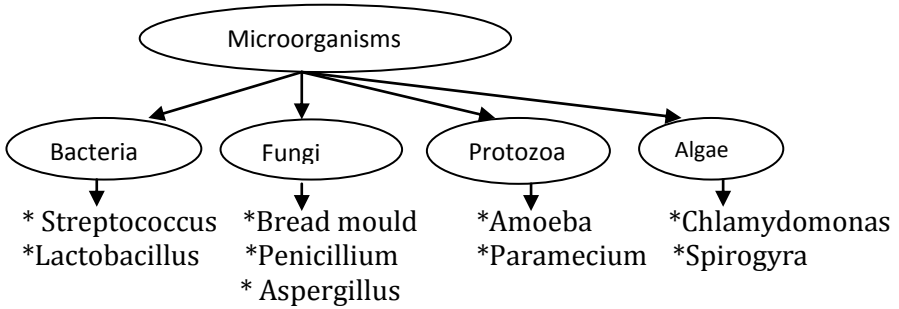
c. Threshing: The process of separating grains from the chaff is called threshing.

d. Harvesting: Cutting of the mature crops manually or by machines is called harvesting.

e. Animal Husbandry: Rearing of animals on a large scale with proper food, shelter and care is called animal husbandry

LN-2 : MICROORGANISMS: FRIEND AND FOE

I. Mind map:



II. Definition:

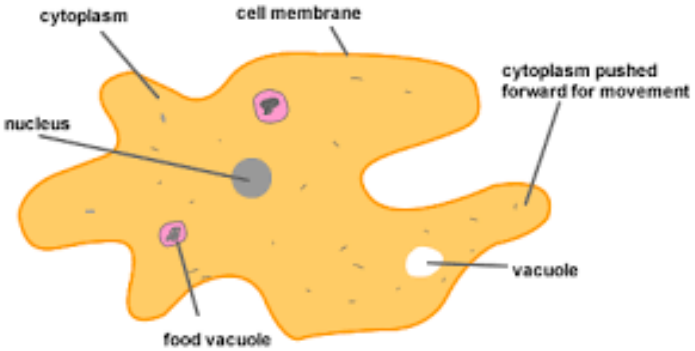
1. Fermentation: The Process of conversion of sugar into alcohol is called fermentation.
2. Antibiotics: The medicine which kill or stop the growth of the disease-causing microorganisms. Eg: Tetra cycline, Streptomycin
3. Pathogens: Disease causing microorganisms.
4. Preservatives: Some substances like salts, edible oils, sodium benzoate etc are used to prevent the growth of microorganisms.
5. Pasteurization: The process by which milk is made germ free by heating to 70°C for 15to 30 seconds and suddenly chilled and stored.
6. Vaccines: The substances used to produce antibodies to fight the invader and protect our body from pathogens.
7. Immunity: The ability of the body to resist a disease by natural or artificial means.
8. Dehydration: Removal of water is called dehydration.

V. Draw the diagrams for each kind of microorganism.

Bacteria:

Algae:

Protozoa:



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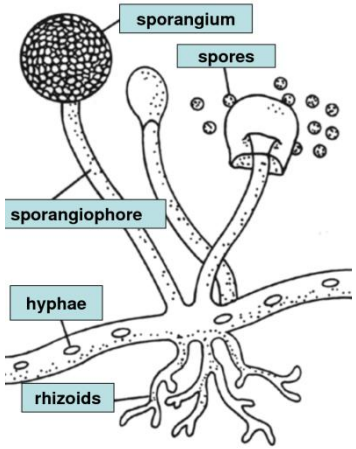
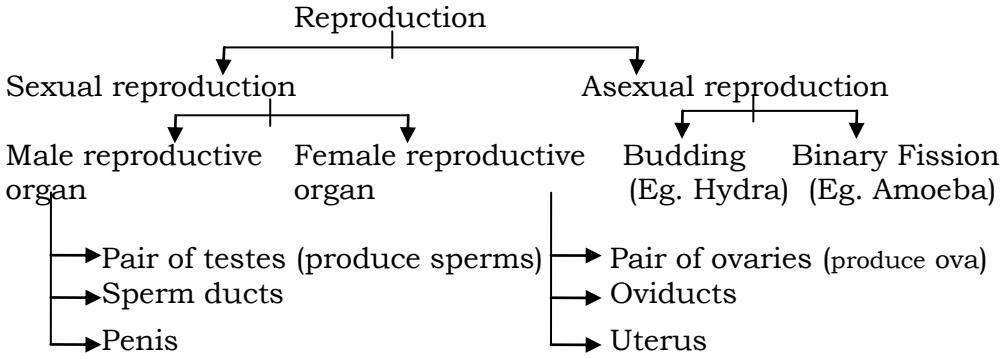


CH.9 REPRODUCTION IN ANIMALS

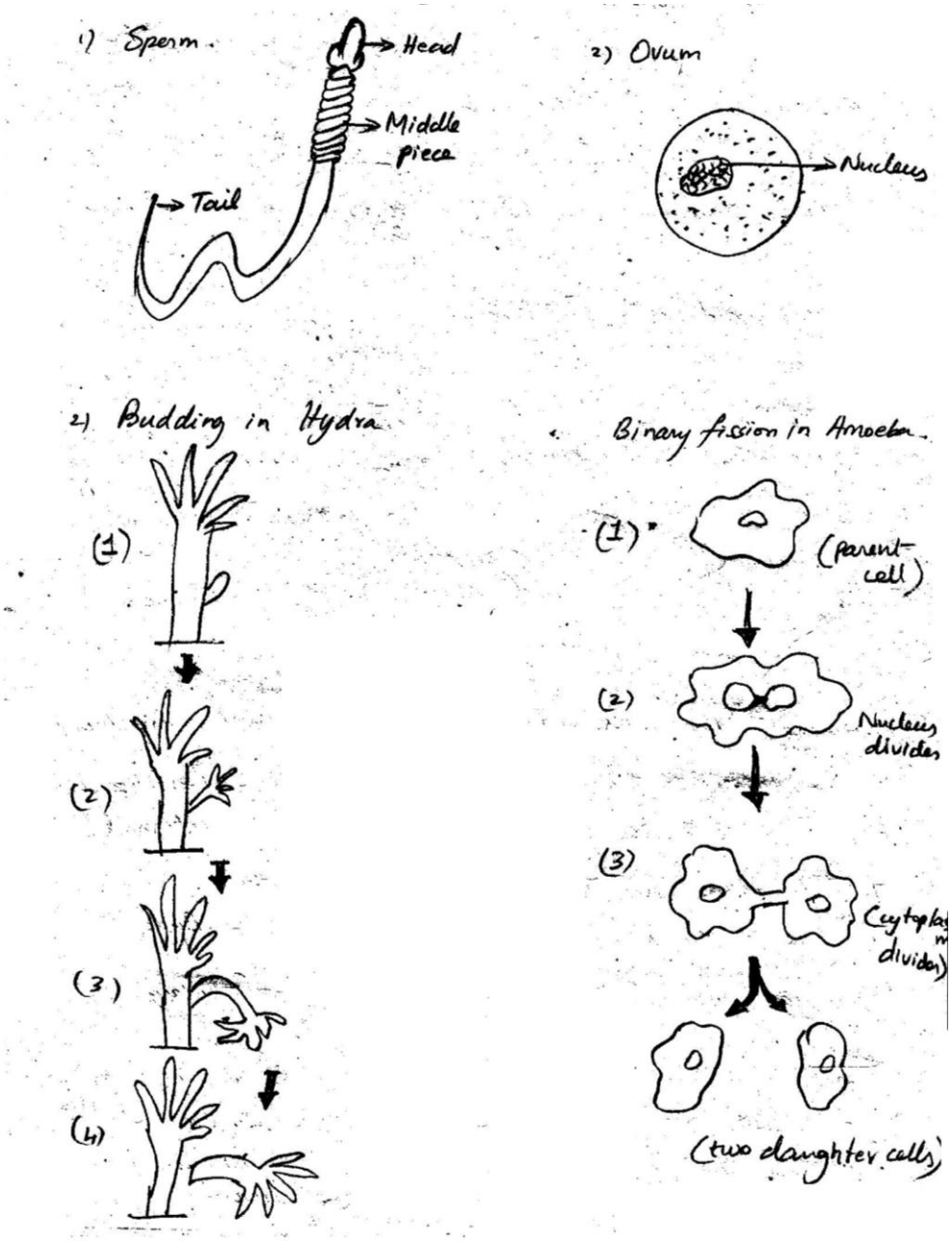
I. Flow chart (c.w)



IV. Definitions: (c.w)

1. Fertilization : Fusion of male and female gametes to form a zygote
2. Internal fertilization : Fertilization which occurs inside the body of the female.
3. External fertilization : Fertilization which occurs outside the body of the female.
4. Vivparous animals: Animals that give birth to young ones.
5. Oviparous animals : Animals that lay eggs.

V. Draw the following diagrams: (c.w)



CH.10 REACHING THE AGE OF ADOLESCENCE

I. Mind map: (C.W)

Adolescence

Changes at puberty	Endocrine glands (Hormones)
*Increase in height *Change in body shape *Voice change *Increase in the recreation of sweat and sebaceous glands. *Development of sex organs.	*Pituitary gland (Growth hormone) *Thyroid gland (Thyroxine) *Adrenal gland (Adrenaline) *Pancreas (Insulin) *Ovaries (Estrogen) *Testes (Testosterone)

V. Definition (c.w)

1. Puberty : The period when changes occur in the body to make sex organs mature and capable of reproduction
2. Sebaceous glands : Glands which secrete oil in the skin.
3. Sweat gland : The glands which secrete sweat.
4. Estrogen : The female hormone secreted by the ovaries at the onset of puberty.
5. Testosterone : The male hormone which is secreted by the testes at the onset of puberty.
6. Larynx : The voice box which produces voice.
7. Hormones : Chemical substance that are secreted by the endocrine glands.
8. Infancy : The period of growth from birth to about 2 years of age.

9. Secondary sexual characters : The characters which develop during puberty and help to distinguish a male from female

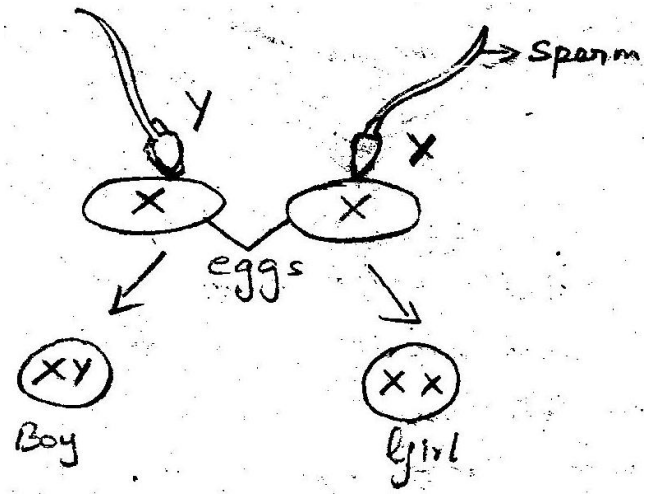
10. Ovulation : The process of release of an ovurm or egg by ovary.

11. Menarche : The beginning of menstruation at puberty.

12. Menopause : The permanent stoppage of menstruation.

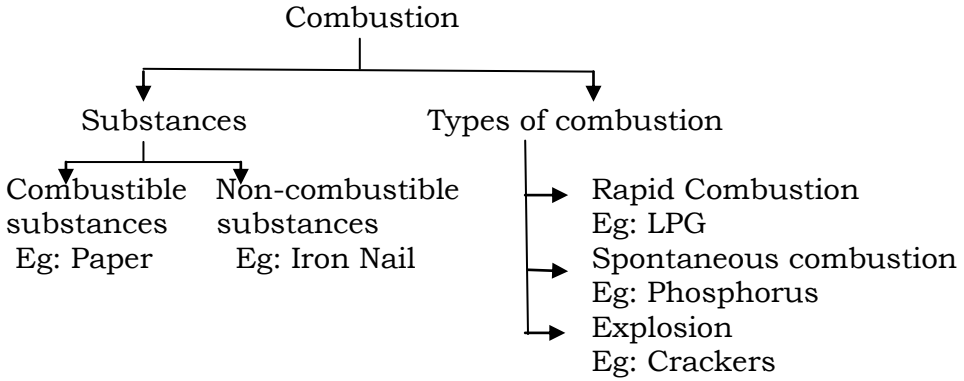
VI. Draw the diagram: (c.w)

a. Sex determination in humans



Ln-6 COMBUSTION AND FLAME

I. Introduction: (c.w)

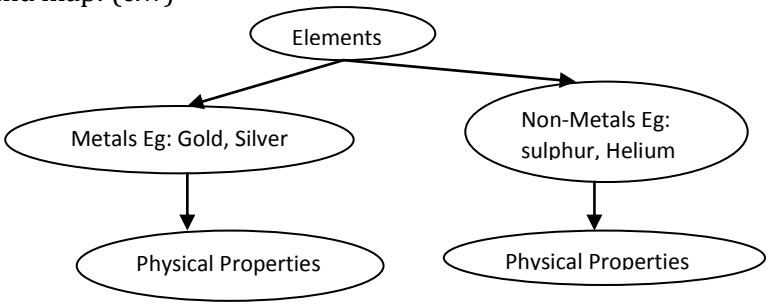


II. Definition: (c.w)

1. Combustible substances: Substances which burn in air.
2. Ignition temperature: The lowest temperature at which a combustible substance catches fire.
3. Inflammable substances: The substances which have very low ignition temperature and can easily catch fire with a flame. [Eg: LPG, Petrol, diesel, alcohol, kerosene , etc]
4. Rapid combustion: The substance which burns rapidly and produces heat and light. [Eg: LPG]
5. Spontaneous combustion: When material suddenly bursts into flames without application of apparent cause. [Eg: Phosphorus]]
6. Explosion: When mixture of combustible material and air completely burn in short period of time producing large amount of sound, light and heat energy. [Eg: Crackers]
7. Calorific value: The amount of heat energy produced when one kilogram of a fuel is completely burnt in the presence of pure oxygen.

Ln 4: MATERIALS: METALS AND NON METALS

I. Mind map: (c.w)



*Solid (Except Mercury)
Eg: Gold
*Lustrous

*Good conductors

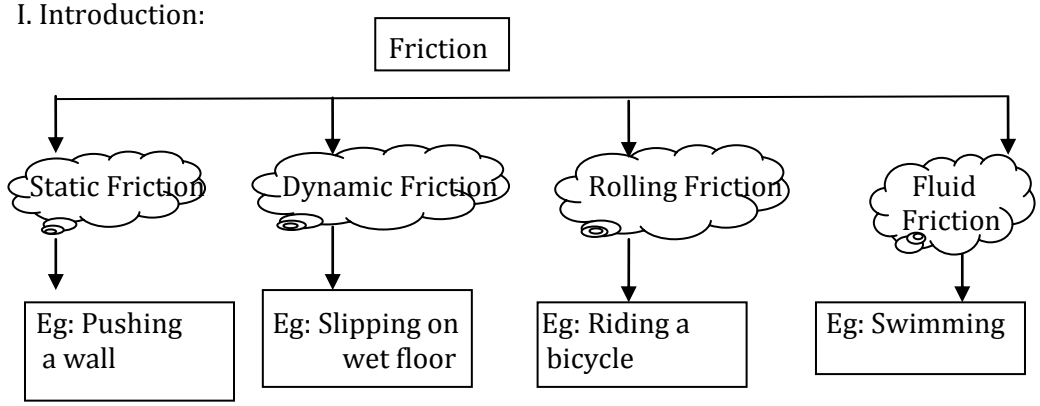
*Solid, liquid (or) gas
Eg: Carbon, Bromine, oxygen
*Not lustrous (Except iodine, graphite)
*Poor conductors (except graphite)

II. Definition: (c.w)

1. Malleability: The property of metals by which they can be beaten into thin sheets.
2. Ductility: The property of metals by which it can be drawn into wires.
3. Metalloids: The elements which have properties of both metals and non-metals.
4. Displacement reaction: The reaction in which a more reactive metal displaces a less reactive metal from its salt solution.
5. Noble gases: Non-reactive gases like helium, neon, argon, etc.

Ch-12 FRICTION

I. Introduction:

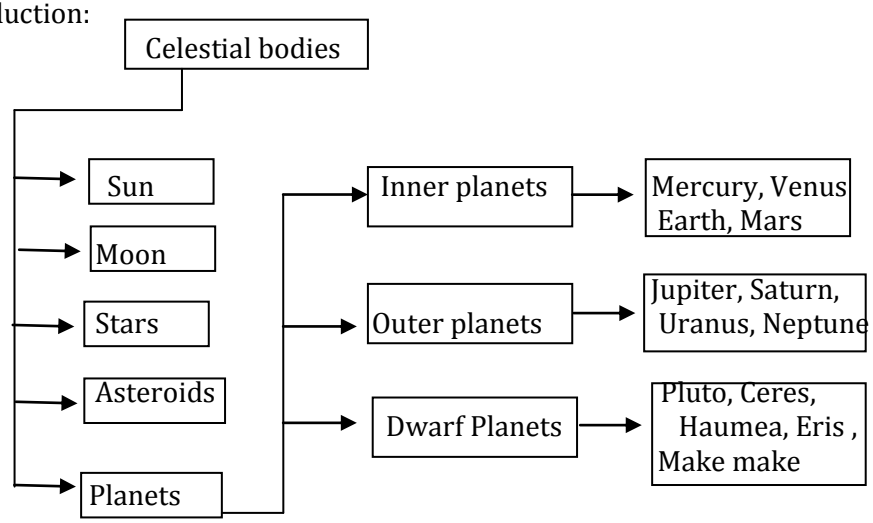


II. Definition:

1) Friction: The force that opposes the motion of an object
2) Static friction: The frictional force that exists between two bodies so long as they are at rest, even though an external force acts upon them.
3. Sliding friction: The friction that exists when an object slides over another.
4. Rolling friction: The frictional force that exists when a body rolls over another body.
5. Drag: The frictional force exerted by fluids.

Ch-17 STARS AND THE SOLAR SYSTEM

I. Introduction:



II. Definition:

1. Celestial bodies : The Sun, Moons, Stars, Planets and other objects in the sky.
2. Orbit : The definite path in which all planets revolve around the sun.
3. Constellation: A certain group of stars which seems to form a recognizable pattern in the night sky.
4. Phases of the moon: The shapes of the bright part of the moon as seen from the earth.
5. Light year: The distance travelled by light in one year.
6. Meteoroids: The solid object of a size considerably smaller than comets and asteroids moving in the solar system.
7. Meteorites : The un burnt meteoroids that reach the earth's surface.

VI. Diagrammatic Questions:

1. Draw sketches to show the relative positions of prominent stars in
a) Ursa Major and b) Orion

a) Ursa Major (Picture)

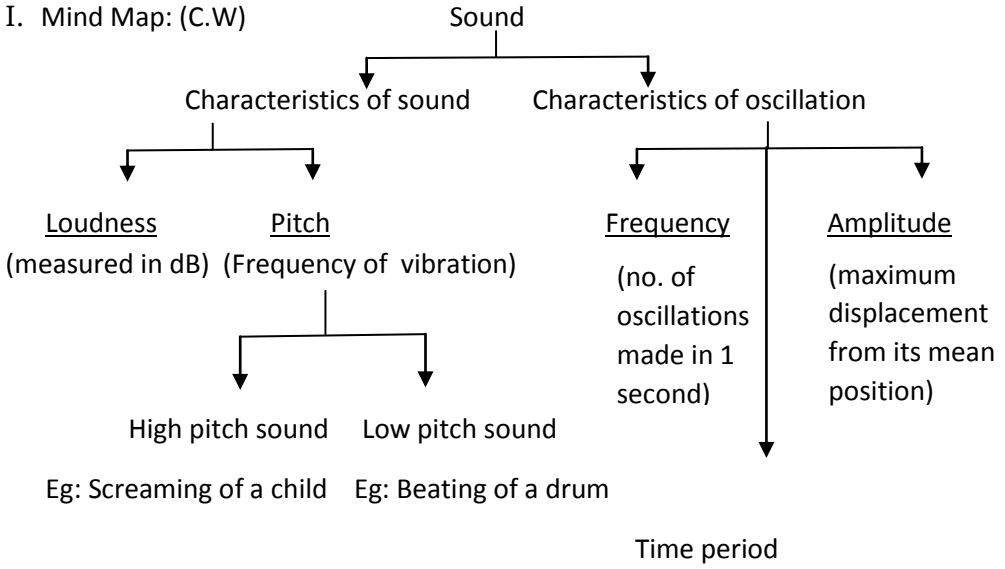
Ursa Major appears like a big dipper – t here are three bright stars in the handle and four stars in the bowl of the dipper

b) Orion (Picture)

Orion appears like a hunter. Three bright stars appear in the belt while five bright stars are arranged in the form of a quadrilateral.

CHAPTER.13 SOUND

I. Mind Map: (C.W)



II. Definitions: (C.W)

1. Vibration: The to and fro or back and forth motion of an object.
2. Oscillation: A regular movement of an object between one position and another.
3. Frequency: The number of oscillations or vibrations made by the vibrating body in one second.
4. Amplitude: The maximum displacement or extent of vibration or oscillation of a vibrating body from its mean position.
5. Time period: The time taken by a vibrating body to complete one vibration.
6. Ultrasonic sounds: Sounds of frequency higher than 20KHz.
7. Infrasonic sounds: Sounds of frequency lower than 20KHz.
8. Noise: Sound which is not pleasing to the ears.
9. Music: A melodious sound that creates a pleasant sensation in the ears.
10. Noise pollution: The disturbance produced in the environment by loud and harsh sounds from various sources.
11. Decibel: A unit to measure the loudness of sound.
12. Pitch: Characteristics of sound that depends on the frequency of vibration.