SCIENCE REVISION CLASS 6

REPRODUCTIVE SYSTEM
MALE REPRODUCTIVE SYSTEM

Parts of the male reproductive system include
Penis
Testis
Urethra
Sperm duct
Glands
Male parts
Female reproductive system
Parts of the female reproductive include
Ovary
Oviduct
Uterus
Cervix
Vagina

Female parts
Functions
Ovary-produce the ova after every 28 days
Oviduct-where fertilisation takes place
Uterus-where the foetus develop till maturity
Cervix-a ring of muscle that holds the foetus to maturity
Testis-they produce sperms
Urethra-allow passage of sperm and urine in men

Physical changes
In both boys and girls

Increase in height and weight
Hair appear in the armpit and the pubic area
Pimples may appear on the face
In boys only
The voice breaks
They experience wet dreams
The chest broadens

Girls only
The breasts enlarge
Voice become smooth
They experience menstrual flow
Hips broaden

Emotional changes
They mainly affect the feelings, they include;
Feeling shy
Embarrassment of,
Their height
Enlarged breasts
Wet dreams
Menstrual flow
Get moody very fast

HEALTH EDUCATION

IMMUNISATION SCHEDULE
They are diseases that a child is immunised against before they are 5 years.

Most of the diseases are dangerous if they infect a young child.

Immunizable diseases

They are diseases that one can be immunised against;
Typhoid
Yellow fever
Meningitis
Tuberculosis
Measles
Tetanus

Hiv and aids testing

Reasons of getting tested
To overcome fear
To stop the spread of HIV
To plan your future
To start medication early
To decide on marriage partner
To plan for your family

Pre-test counselling; it is the testing one receives in the VCT centre before being tested.
Post-test counselling; it is the testing one receives in the VCT after being tested

Effects of HIV/AIDS to the country

Reduced agricultural production
Poor economy
Death of skilled people
A lot of money is spent on treatment
Congestion in the hospitals

Effects to the family

Sadness in the family

Family income is spent on treatment
Children may become orphans
Children may drop out of school to take care of the sick parents
The family may feel discriminated.

Effects of hiv to the individual

Poor health
Poor performance
Spending of a lot of money
Feeling stigmatized

PLANTS

PARTS OF A PLANT

Main parts of a plant are;
Roots
Stem
Leaves

FLOWER

flower
The main reproductive part of a plant is a flower.
Parts of a flower include;
Male part
Female part

Functions of different parts;
Male parts
Anthers; produce pollen grain(male cells)
Filament; it supports the anthers

Female parts

Stigma; receives the pollen grains
Style; holds the stigma
Allow the development of pollen tube
Ovary; holds the ovules
Develops in a fruit
Ovule; female cell
Develops into seeds

POLINATION

it is the transfer of pollen grains from the anthers to the stigma of the same kind

Agents of pollination include;

Wind
Insects
water

Types of pollination

There are two types;

Self pollination-it is the transfer of pollen grains from the anthers to the stigma of the same plant.

Cross pollination-it is the transfer of pollen grains from the anthers to the stigma in different plants of the same type.

Characteristics of insect pollinated flowers

They have nectar
Brightly coloured
Have big petals
Sticky stigma
Small amount of pollen grains

Characteristics of wind pollinated flowers

Small in size

Dull in colour
Powderly pollen grains
Produce large amount of pollen grains
Loosely attached filaments

Germination

It is the change of the seed into a seedling
Conditions necessary for germination
Air (oxygen)
Moisture(water)
Warmth(temperature)

Types of germination
Epigeal germination; the seed comes out of the soil during germination e.g. Beans
Hypogeal germination; the seed remains in the soil during germination e.g. maize
Types of germination
Hypogeal germination

Parts of a seed

Testa
Helum
Micropyle
Cotyledon
Radical
Plumule.

SOLAR SYSTEM

Venus is the brightest and the hottest

Mercury takes the shortest time to go round the sun
Mars is known as the red planet
Jupiter is the largest planet
Saturn has visible rings around it.
Asteroids are found in between mars and Jupiter
Planets ;smallest to largest

Rotation;

it is the process in which the Earth spins on its own axis
The Earth rotates on its own axis
The earth takes 24 hours to make a complete rotation.
The rotation cause day and night

Revolution

It is the process in which the Earth moves around the sun.
The path that is followed by the Earth as it goes around the sun is called orbit
The Earth takes 365 ¼ days to make one complete revolution.
Revolution causes seasons

***A*NIMALS**

Animal feeds

They are classified into
Pastures
Fodder
Conserved feeds
Commercial feeds

pasture

They are grasses and legumes that animals feed on directly.
They are classified into;
Pure stand ; only consist of either grass or legumes only
Mixed stand ; consists of both grass and legumes

Grass

Examples of grass include;
Kikuyu grass
Star grass
Giant sataria
Rhodes grass

Legumes

There are 4 main legumes used as pasture, they include;
Clover
Lucerne
Glycine
Desmodium.

Fodder

They are crops that are hervestered or cut then given to the animals. examples;
Napier grass
Guatemala grass
Potato vines
Maize stalks
Kales
Sugar beet

Conserved feeds

They are animal feeds that are preserved in a special way to be used in future.
They are divided into two;
Hay
sillage

Hay

It is cut and preserved by drying
It is stored in bales

Silage

It is harvested when it is about to flower. It is preserved by fermentation.
It is stored when still green or in the succulent state.
It is stored in silos
The molasses is added to speed up fermentation.

Methods of grazing

Rotational grazing
Zero grazing
herding
Rotational grazing
They include
Tethering
Paddocking
Strip grazing

Tethering

The animal is tied to a peg or post using a rope
The rope allows the animal to graze within a restricted area.
It is practised were few animals are kept

Paddocking

The land is divided into small areas known as paddocks using a permanent fence
A watering point is usually provided in each paddock.

Strip grazing

The animals are enclosed in a small portion of the pasture using a temporary fence.
An electric fence is usually used.

Zero grazing

It is also known as stall feeding
The animals are confined in a permanent structure (shed)
The shed should have feeding area, watering area, sleeping area and milking area.

Herding

It is a type of grazing where animals are allowed to graze freely on large areas of land.

Water

Waterborne diseases

They are diseases that are spread through contaminated water. They include:
Cholera
Typhoid
Bilharzia.

Cholera

It is caused by bacteria. it can cause death within 24 hours if not treated. It causes death through dehydration.

Signs and symptoms

Violent diarrhoea (rice water).
Vomiting.
Severe abdominal pains
Wrinkled skin due to dehydration.
Sunken eyeballs

Typhoid

It mainly affects the intestines. It is also known as typhoid fever.

Signs and symptoms

Pain in the joints and muscles
High fever
Abdominal pains
Skin rash

Bilharzia

It is caused by bilharzia worms or blood flukes. It is carried by water snails.
The disease mainly affect the bladder and intestines
Bilharzia worms enter the body through the skin.

Signs and symptoms

Blood in urine and stool
Coughing may occur
Abdominal pain
Swimmers itch
Fever

Soil

Soil erosion

Soil erosion is the carrying away of the top soil from one place to another.

Agents of soil erosion

They are things that carry soil from one place to another. They include;
Water
wind

Factors that influence soil erosion

Slope of land
Type of soil
Vegetation cover
Amount of rainfall
Human activities

Types of soil erosion

Splash erosion
Sheet erosion
Rill erosion
Gulley erosion

Splash erosion

It occurs when raindrops fall on bare loose soil.
It can be controlled by;
Planting cover crops
mulching

Sheet erosion

It occurs when water or wind carries away thin uniform layers of the topsoil.
It is not easily noticed
It occurs on gentle slopes.
Best controlled by;
Planting cover crops
Planting trees
Landslides are caused by sheet erosion
.

Rill erosion

It occurs when water flows down a slope and make small shallow channels. The channels are known as ***rills.***
it is common on gentle sloping areas.
It can be controlled by;

Terracing
Contour farming
Strip cropping

Gulley erosion

It occurs when water make deep channels , they are known as ***gulleys***.

Gulley erosion leads to the formation of V-shaped or U-shaped channels.

It is common on bare hill slopes.

It can be controlled by;

Gabions

Porous dams

Check dams

Food and nutrition

Food preservation

It is the process of storing and handling food properly so as to stop or slow down its spoilage.

Reason for preserving food

To reduce food wastage

T prevent it from being spoilt

For easy transport

To make food available when out of season.

Methods of food preservation

Food preservation is classified into;

Traditional methods

Modern methods

Traditional methods

They include;

Smoking- forms a coat
Drying- reduce moisture
Salting- reduce moisture
Use of honey- prevents oxygen
Use of ash- reduce moisture

Modern methods

Canning-killing germs and preventing oxygen
Refrigeration- low temperature
Freezing- low temperature

Drying is both traditional modern method of preserving food. It is also the cheapest method of food preservation.

Energy:

Light

How light travels

Light travels in a straight line away from the source.
Light travels to all directions from the source.

Transparent materials

They are materials that allow all light to pass through them and one can see through them clearly.
Examples:
Clear glass
Clear water
air
Uses of transparent materials
They are used in making:
Car windscreens
Spectacles
Window panes

Lamps
Glass walls

Translucent materials

They are materials that allow only little light to pass through them.
Examples:
Frosted glass
Tracing paper
Oiled or waxed paper
Uses of translucent materials
They are used in making:
Skylights
Toilet and bathroom window panes
Ambulance windows.

Opaque materials

They are materials that do not allow any light to pass through them.
When light hits an opaque materials a shadow is formed.
Examples:
Wood
Stone
metals

Reflection of light

Reflection is the bouncing back of light when Materials that reflect light are called reflectors.
Reflection happens when light hits a smooth shinny surface.

Types of reflection

Regular reflection
Irregular reflection(diffused)
Regular reflection
Irregular (diffused)

Characteristics of the image in a plane mirror

The image is upright
The image is behind the mirror
The image is the same size as the object
The image is laterally inverted.

Refraction of light

It is the process in which light bends or changes direction when it moves from one medium to another. (air to water)

Effects of refraction

Objects appear bent or broken
Objects appear bigger
Swimming pool appear shallower

Making a rainbow

A rainbow is formed by the refraction of light. To be formed *raindrops* and *sunshine* is required.
The process of splitting light into seven different colours is known as ***dispersion***.
A group of seven colours in the rainbow is known as ***spectrum***.

Properties of matter

Composition of air

Air is a mixture of gases
Air mainly consists of :
Gases

Water vapour
Dust particles
Components of air

Components of air

Uses of oxygen

Breathing (Respiration)
Germination
Burning (Combustion)
Rusting.

Uses of carbon dioxide

Photosynthesis
Preserve soft drinks
To make fire extinguishers
Used in baking
Used in making dry ice.

Uses of nitrogen

Used by plants to make proteins
Used to preserve semen
It is taken in through the roots as ***nitrates***. Leguminous plants are able to convert nitrogen to nitrates.

Uses of inert gases

They include Argon, Neon, Helium and Krypton
Used in electric bulbs and light tubes
Used in coloured advertising signboards.
Used in hot air balloons.

Making work easier

Force

Force is a pull, push or lift.
It is measured in Newtons (N)
A moving object is said to be in motion while an object at rest is said to be stationary.
Force is measured by the use of a ***spring balance.***
Examples of force
Force of gravity (weight)
Frictional force
Magnetic force
Inertial force

Effects of force

Makes an object to start moving
Stops a moving object
Change direction of a moving object
Speeds up a moving object
Change the shape of an object.