TERM III PRIMARY SIX INTEGRATED SCIENCE TOPICAL OUTLINES
THEME: SCIENCE IN HUMAN ACTIVITIES AND OCCUPATION

TOPIC 1: SCIENCE AT HOME AND IN OUR COMMUNITY

- Components of water
- Properties or characteristics of pure water
- Properties of water
- Experiments to show different properties of water
- Uses of water in the body
- Preparation of clean water
- Preparation of safe water
- Diseases associated with water
- Water pollution or water impurities
- Effects of silting to water bodies
- Silting
- Ways of removing hardness from water
- Cleaning clothes in a home
- Reasons for ironing clothes

THEME: HUMAN HEALTH

TOPIC 2: ACCIDENTS AND FIRST AID

- Examples of accidents
- Qualities of a good first aider
- Causes of burns
- First degree burn
- Second degree burn
- First aid for second degree burn
- Third degree burn
- First aid for a third-degree burn
- Scalds
- Causes of scalds
- First aid of scalds
- Reasons for putting injured part in cold water
- Fever and convulsions
- First aid for convulsions
- Near drowning and drowning.
- Prevention of drowning and near drowning
- First aid for near drowning
- Fainting
- Causes of fainting
- Conditions that can lead to fainting
- First aid of foreign bodies in the eyes
- First aid of foreign body in the nose
- Poisoning
- Common poisonous substances
- Signs of a poisoned person
- Fractures
- Causes of fracture

THEME: HUMAN HEALTH

TOPIC 3: SANITATION

- Elements of sanitation
- Ways of promoting sanitation.
- Reasons for practicing good sanitation
- Latrines
- Characteristics of pit latrines;
- Differences between a VIP latrine and an ordinary pit latrine;
- Similarities between a VIP latrine and an ordinary pit latrine
- Advantages of VIP latrine over an ordinary pit latrine;
- Ways of keeping pit latrines clean.
- Site for latrines
- Structure of a water closet toilet
- Problems faced by urban toilets;
- Importance of using ash or lime:
- Advantages of using Ecosan toilets
- Problems or disadvantages of using Ecosan toilets

THEME: THE HUMAN BODY

TOPIC 4: REPRODUCTIVE SYSTEM

- Stages of adolescence;
- Problems of adolescence;
- Reproduction in humans
- Forms of reproduction;
- Sexual reproduction
- Menstruation/menstrual cycle
- Fertilization;
- Internal fertilization;
- Implantation
- Teenage pregnancy
- Causes of teenage pregnancies
- Problems associated with teenage pregnancy;
- Solutions to teenage pregnancy
- Common diseases and disorders of the reproductive system
- Examples of STD's
- Ways through which HIV virus is spread
- Practices that may lead to HIV infection
- Signs and symptoms of HIV/AIDS infection
- Effects of HIV/AIDS infection
- Prevention of HIV/AIDS
- Gonorrhoea:
- Signs and symptoms in males
- Prevention and control of Gonorrhoea
- Signs and symptoms
- Prevention of syphilis infection
- Care for the reproductive organs
- Family planning and child spacing
- Methods of family planning
- Importance of family planning
- Disadvantages methods of family planning
- Advantages methods of family planning
- Reasons why some parents produce many children
- PIASCY MESSAGES

THEME: SCIENCE IN HUMAN ACTIVITIES AND OCCUPATION
TOPIC 1: SCIENCE AT HOME AND IN OUR COMMUNITY

LESSON

Water is a chemical substance made up of hydrogen and oxygen
These gases are in the ratio of 2:1

Components of water

1. Hydrogen
2. Water

Sources of water

Rain is the main source of water; however, water can be found in:

- ✓ Lakes
- ✓ Rivers
- ✓ Seas
- ✓ Oceans
- ✓ Springs
- ✓ Ponds
- ✓ Swamps
- ✓ Artesian wells

Pure water

Pure water is water which contains no impurities.

Properties or characteristics of pure water

1. It is colorless
2. It is tasteless
3. It is odorless (has no smell)
4. It is free from bacteria and other living creatures like algae
5. It is free from dissolved salts and gases

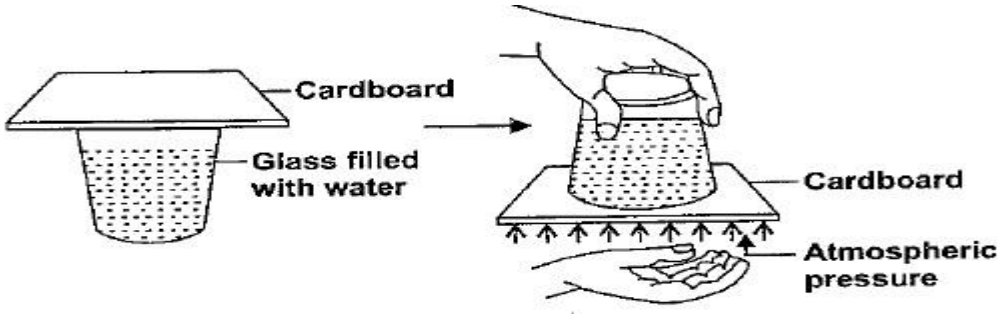
Properties of water

1. Water exerts pressure
2. Water finds its own level
3. Water is a good solvent
4. Water can dissolve gases

Experiments to show different properties of water

1. Water exerts pressure

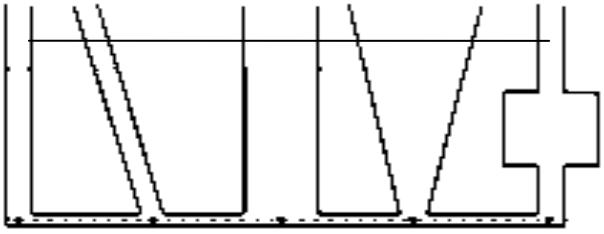
A cardboard is lowered onto the glass of water till there is no space between them. The glass full of water is turned upside down while the cardboard is gently covering it.



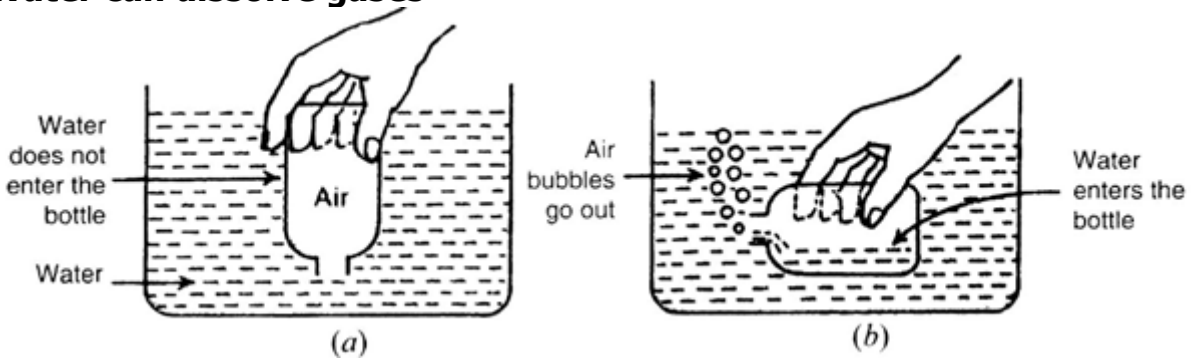
Observation

The cardboard will be strict to the glass of water. This is due to the atmospheric pressure exerted on to it.

2. Water finds its own level



3. Water can dissolve gases



Uses of water in the body

1. Water makes up part of blood as plasma
2. Water helps to dissolve digested food for easy digestion
3. Water maintains the shape of the body cells
4. Water takes part in changes that must occur in the body such as cooling as sweat.
5. Water is a medium where chemical changes takes place in the body.

Domestic uses of water

1. Water is used for cooking food
2. It is used for washing clothes
3. Water is used for bathing our bodies
4. Water is used for washing utensils
5. Water is provided to animals to drink

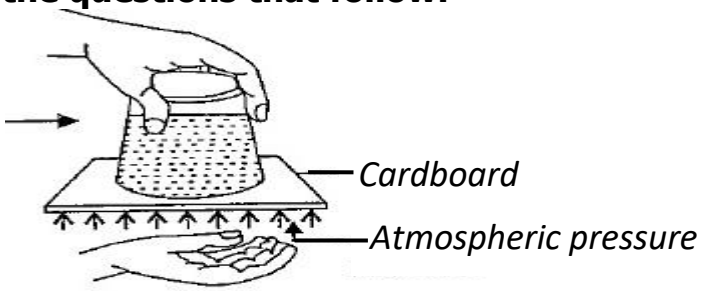
Industrial uses of water

1. Water is used for generating electricity
2. Water is used for recreation like swimming and boating
3. Water is used for cooling machines in industries
4. Water is used to clean machines in industries

Activity

1. Name the chemical substance made up of hydrogen and oxygen.
   ……
2. Mention **two** components of water.
   ……
   ……
3. Name the main natural source of water in the environment.
   ……
   ……
4. Why is rain referred to as the main source of water?
   ……
   ……

The diagram below demonstrates a property of water. Use it to answer the questions that follow.



5. State the property of water demonstrated above.

.....

.....

6. Give **one** effect of the atmospheric pressure on the card board.

.....

.....

7. State **two** characteristics of pure water.

(i).....

(ii).....

8. State **two** artificial sources of water.

.....

.....

9. How is pure water different from the clean water?

.....

.....

10. Write the property of water is also found in air?

.....

.....

11. Mention any **two** properties of water.

(i).....

(ii).....

12. Give any **two** uses of water in the body.

(i).....

(ii).....

13. Mention any two **two** industrial uses of water

(i).....

(ii).....

14. Name the type of electricity generated from fast flowing water.

.....

.....

LESSON

Preparation of clean water

Methods of obtaining clean water from dirty water include:

1. Decantation/Decanting method
2. Filtration/Filtering method
3. Distillation (clean water is water that does not contain germs)
4. Boiling

Decantation

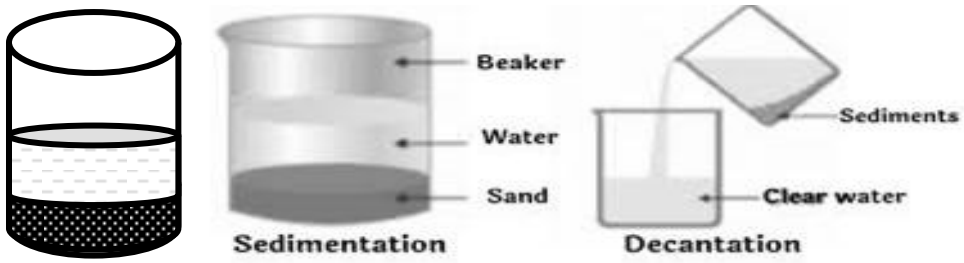
This is the process of removing solid particles from liquid.

Decanting is the process of separating liquid from a solid that has settled, by pouring carefully out of the container

Decantation method is also called a three pot system

Decanted water is not safe for drinking because it contains germs.

Experiment to show decantation



Activity

1. State any **three** steps to follow when obtaining clean water from muddy water using decantation method.
   (i).....
   (ii).....
2. Give another name of decantation method.
   (i).....
   (ii).....
3. Mention any **two** ways of obtaining clean water.
   (i).....
   (ii).....
4. By which process can water obtained though decanting be made safe for drinking?
   (i).....
   (ii).....

Boiling

When water is heated, it boils, to a temperature of 100^{o}C (212^{o}F),this temperature kills germs.

Boiling water is the best method of making it safe for human consumption.

Reasons for boiling water

1. Boiling water kills germs,
2. Boiling water prevents contamination

Why is water obtained through decantation not safe for drinking?

Filtration

This is the process of separating solid particles from a liquid.

The solid particles that remain on the filter are called the **residues**

The clean water obtained after filtration is called the **filtrate**.

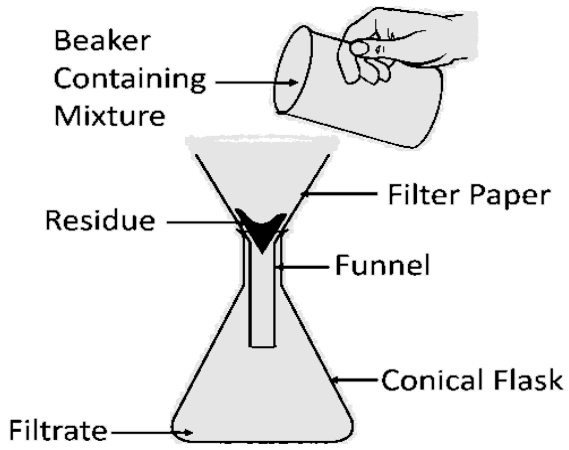
Examples of solid impurities filtered are dirt, soil, stones, leaves, animals' wastes

NB: Filtered water is not safe for drinking because it may be containing some germs.

Ways how filtered water can be made safe for drinking

- By boiling
- By treating using chemicals

Experiment to show filtration



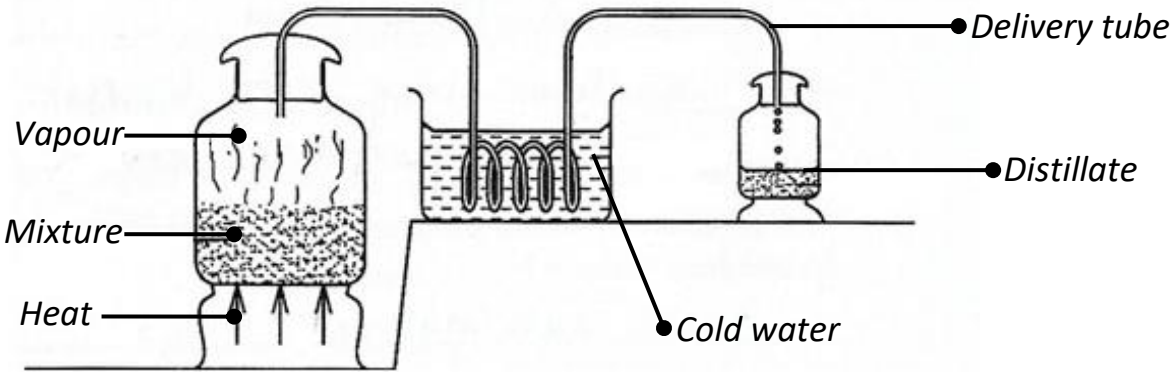
Distillation

This is the process which involves evaporation of the liquids and then condensing the vapour to liquid form.
The water obtained through distillation is called **distilled water**.
Distillation also helps in the preparation of alcohol.
Note: Distilled water is used by doctors to mix drugs, for injection and in drips.
Distilled water is not good for drinking because it does not contain mineral salts.

Reasons why distillation is not commonly used

1. It produces small quantities of water
2. distilled water is not good for drinking since it lack mineral salts
3. Distillation process is expensive
4. Distillation is time consuming
5. Distillation needs a lot of labour

Experiment to show distillation method



Preparation of safe water

Safe water is water which is free from germs

Methods of preparing safe water

- ✓ Boiling water
- ✓ Distillation
- ✓ Treating water using chemicals like chlorine, water guard, Florine, calcium chloride, potassium permanganate

Treatment of Water

Treatment of water is when chemicals are added to kill germs in it.

Examples of chemicals used to treat water are; chlorine, water guard and aqua safe.

Advantages of Chemicals Used in Water Treatment

The chemicals kill germs in water

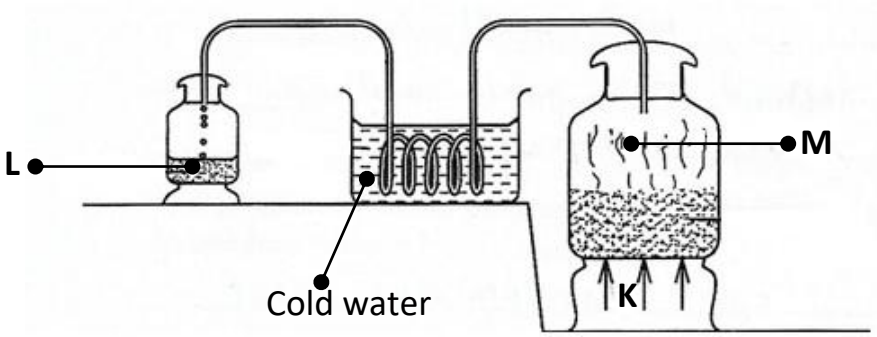
Disadvantages of using chemicals

1. They are expensive to buy chemicals
2. They do not make water clear
3. They add some smell and taste to water.

Activity

1. Mention any **two** methods of obtaining clean water from dirty water.
   (i) .....
   (ii) .....
2. Name the method of obtaining clean water where solid particles are removed from it.
   .....
3. State any **one** reason why filtered water is not good for drinking.
   .....
4. What term is used to mean the solid particles that remain after water filtration?
   .....
5. Of what importance is distilled water to the doctors?
   .....
   .....
6. Name the method of obtaining distilled water.
   .....
7. State the main reason why distilled water is not good for drinking.
   .....
   .....
8. Mention **two** chemicals used for treating water.
   (i) .....
   (ii) .....
9. State any **two** disadvantages of using chemicals in treating drinking water.
   (i).....
   (ii).....

The diagram below shows one of the methods of preparing alcohol. Study and use it to answer questions 10.



a) Name the methods used in the diagram.

.....
.....

b) Name the liquid marked with letter L.
.....

c) What do the arrows labeled **K** represent?
.....

d) State the importance of the delivery tube in the process above.
.....

e) Why is the delivery tube passes through cold water?
.....
.....

f) What process forms **M?**
.....

g) Apart from preparing water for drinking, mention any **one** other liquid prepared using distillation.
.....
.....

LESSON

Diseases associated with water

There are four ways how unprotected water can spread diseases or germs and cause diseases in people.

These are:-

- Water borne diseases.
- Water habitat vector diseases.
- Water cleaned diseases.
- Water contact diseases.

Water borne diseases

These are diseases spread through drinking contaminated unprotected water. They include the following:

1) Polio caused by virus and it attacks the skeleton or bones.
2) Bilharzia, caused by blood flukes or worms called Schistosoma spread by a water snail it attacks the urinary bladder.
3) Typhoid, caused by bacteria called salmonella typhi, it attacks the digestive system.
4) Dysentery; caused by two organisms that attack the digestive system.
   (a) Bacilli called shigella. (b) a protozoa called entamoeba hyistolytica .
   i. Cholera caused by bacteria called vibrio cholerae. It attacks the digestive system.
5) Diarrhoea caused by bacterium, virus, worms or and any disorder of the digestive system. It also attacks the digestive system.
6) Intestinal worms; many different types of worms attack the small and large intestines.
7) Hepatitis; caused by a virus it attacks the liver.

Water habit vector diseases

These are diseases that are spread by vectors which at one stage develop or live or obtain their food from water. They include the following:

- ✓ Malaria; caused by a protozoa called plasmodia which is spread by a female anopheles mosquito.

- ✓ Yellow fever and dengue fever; they are both caused by virus which is spread by tiger or aedes mosquito.
- ✓ Bilharzia.
- ✓ River blindness; caused by a worm called onchocerca vulvulus which is spread by the black fly. It attacks the skin and eyes.
- ✓ Elephantiasis caused by a worm called filaria which is spread by the culex mosquito. It attacks and blocks the blood vessels and nerves in the legs making them to swell and grow big like those an elephant.

Water cleaned diseases:

These are diseases which we get if we do not use enough water to keep clean. They include:

i. Conjunctivitis. ii. Diarrhoea.

It is caused by either bacteria or virus.

iii. Impetigo.

They can also be spread by houseflies

It is caused by bacteria.

It attacks the contaminated hands, handkerchiefs, skin and causes spots with pus in water or towels.

It attacks the eyes, the face, nose, ears and head.

iv. Scabies:

It is caused by an itch mite. It attacks the skin and causes a lot of itching.

Water contact diseases

These are diseases we get from bathing and swimming in unprotected contaminated water. They include:-

1. Sore eyes and ears; pus comes out of the ears and they pain.
2. The nose pains and becomes stiff.
3. Swimmer's itch, it causes itching all over our bodies
4. Bilharzias.

Activity

1. What are water borne diseases?
   .....
   .....
2. State any **two** examples of water borne diseases.
   (i).....
   (ii).....
3. What are water habit vector diseases?
   .....
   .....
4. Mention any **two** water habit vector diseases
   (i).....
   (ii).....

5. Name the germ which causes malaria?
   ……
   ……
6. What is water cleaned diseases?
   ……
   ……
7. State any **two** examples of water cleaned diseases.
   (i)……
   (ii)……
8. Define water contact diseases.
   ……
   ……
9. State any **two** examples of water contact diseases.
   (i)……
   (ii)……

LESSON

Water impurities

Water impurities are substances added to water and change the nature of quality of water

Impurities may be soluble or insoluble organic.

Inorganic impurities

It consists of dissolved mineral salts which make water unsafe to use.

Organic impurities

These include bacteria, fungi and protozoa others may be dead plant materials such as leaves and grass.

Examples of water impurities

1. Human wastes
2. Animal wastes like urine, dung
3. Herbicides
4. Insecticides
5. Silt from erosion
6. Microscopic plants and animals like amoeba and spirogyra
7. Dead plant matter
8. Fine particles of mud
9. Sand

Water pollution

Water pollution is the process of making water contaminated.

Ways of polluting water

1. Urinating in water sources
2. Defecating in water sources
3. Dumping industrial wastes in water sources
4. Dumping heavy metals in water sources
5. Leakages of petroleum products into water sources
6. Silting

Activity

1. What do you understand by the term water impurities?
   ……
   ……
2. Mention any **two** examples of organic water impurities
   (i)……
   (ii)……
3. State any **two** ways animal wastes which pollute water.
   (i)……
   (ii)……
4. Write down any **two** examples of chemical water impurities.
   (i)……
   (ii)……
5. Define water pollution.
   ……
   ……
6. Mention any **one** way in which water is polluted
   a) Naturally: ……
   b) Artificially: ……
7. Mention any **two** impacts of water pollution.
   (i)……
   (ii)……
8. Name any **two** water animals affected by chemical impurities.
   ……
   ……
9. Mention any **two** ways of controlling water pollution.
   (i)……
   (ii)……

Silting

This is the deposition of soil and other materials into the water bodies by erosion.

- Silting is caused when people who stay near rivers and lake shores cultivate the banks and shores removing the grass cover.

Examples of silts

1. Soil
2. Grass
3. Metal scraps
4. Plastics
5. Polythene paper

Effects of silting to water bodies

1) Silts reduces the depth of water bodies
2) Water becomes dirty or contaminated.
3) Silts leads to dryness of rivers, swamps and lakes
4) Silting leads to flooding of surrounding areas
5) Silts kill aquatic animals
6) Silts cover the breeding ground for fish

Ways of controlling silting:

1. Controlling soil erosion.
2. People should not be allowed to cultivate along river banks.

Dangers of water

- ✓ Water carries harmful germs that cause diseases like cholera and typhoid
- ✓ Poisonous substances from factories, human wastes, detergents are often dumped into rivers and lakes by water.
- ✓ Flowing water causes soil erosion
- ✓ Heavy floods destroy man's crops and cause a lot of damage to property.

Activity

1. How is silting different from silt?
   ……
   ……
2. Mention any **one** impact of flowing water to lakes and river
   ……
   ……
3. Mention any **two** examples of silts
   (i)……
   (ii)……
4. Give any **two** effects of silting to water bodies.
   (i)……
   (ii)……
5. Write **two** ways of controlling silting of water.
   (i)……
   (ii)……
6. Mention any **two** examples of aquatic animals affected by the silts.
   (i)……
   (ii)……
7. Mention any **two** weather hazards related to water.
   (i)……
   (ii)……
8. Name any **two** diseases spread through water.
   (i)……
   (ii)……

LESSON

Hard and soft water

- ✓ **Hard water** is water that contains certain mineral salts dissolved in it. Hard water does not form scum with soap easily.

Hard water is not good for washing clothes because:

- ✓ It leads to wastage of soap while washing
- ✓ It causes stains on clothes

Soft water is water that forms scum easily with soap

Ways of removing hardness from water

- ✓ Adding chemicals to hard water e.g. chlorine and water guard
- ✓ Boiling water
- ✓ Through distillation

Cleaning clothes in a home

One main use of water at home is to wash clothes. Clothes that need to be washed are called **laundry**

Step taken in cleaning clothes at home

1. **Sorting** is the practice of identifying dirty clothes which have been used.

Main reason for sorting clothes before washing them

1. To identify dirty clothes from the clean ones
2. To prevent colour bleeding
3. For effective stain removal
4. To protect delicate fabrics
5. It makes washing simple and comfortable

Factors to consider when sorting clothes

- Colour of clothes
- Intensity of dirt
- Nature of the fabrics
- Durability of the fabrics

Disadvantages of not sorting clothes before washing them

1. Failure to identify dirty clothes from the clean ones
2. Colour bleeding may occur in clothes
3. Stain removal is ineffective
4. It damages delicate fabrics
5. It complicates washing and makes it uncomfortable

2. **Soaking** is the act of sinking clothes in water and soap for easy removal of dirt and other spots on a cloth

It is the putting of clothes in soapy water for some time.

Importance of soaking clothes

1. It helps to loosen dirt and dissolve stains
2. It saves time during washing as it needs little effort to remove it.
3. It guards against tear and wear due to constant rubbing while washings.

Activity

1. What is the difference between hard water and soft water?
   .....
   .....
2. Mention any **two** ways of removing hardness from water.
   (i).....
   (ii).....
3. State any **two** activities done before washing clothes in a home.
   (i).....
   (ii).....
4. What is sorting as used in **cleaning clothes?**
   .....
   .....
5. Suggest **two** main reasons for sorting clothes before washing them.
   (i).....
   (ii).....
6. State any **two** factors to be considered when sorting clothes for washing them.
   (i).....
   (ii).....
7. State any **two** challenges of not sorting clothes before washing them.

(i)……
(ii)……

8. How is soaking clothes different from sorting clothes?

……

……

9. State any **two** disadvantages of soaking clothes for so long.

(i)……
(ii)……

10. Why do we soak clothes before washing them?

……

……

3. **Washing**

Washing is the act of squeezing of the cloth together with the detergents.
It is the removal of dirt using water and detergent.

Types of washing clothes

- Hand washing
- Machine washing

Hand washing involves using human hands to remove dirt and stains from clothes.

Advantages of using hand washing

1. It is cheap
2. It promotes physical exercises
3. It is environmentally friendly
4. It saves the fabrics against machine damage
5. Dirt and stains are eliminated completely
6. It uses less water and detergents
7. It helps to maximize proper hand hygiene

Disadvantages of using hand washing

1. It takes a lot of time
2. It needs a lot of effort and energy
3. It fades the fabrics quickly
4. Some detergents used in washing cause skin infection

Machine washing

This is the use of laundry machines to remove dirt and stains from clothes.

Advantages of using machine washing

1. It does not take a lot of time
2. It needs little effort and energy to clean clothes
3. It does not fade the fabrics quickly
4. It protects the skins against skin infection caused by some detergents used in washing

Disadvantages of using machine washing

1. It is expensive
2. It does not promote physical exercises
3. It is environmentally unfriendly in term of pollution
4. It damages the fabrics quickly
5. Dirt and stains are not eliminated completely

6. It uses more water and detergents
7. It does not maximize proper hand hygiene

Activity

1. What term is used to mean the removal of dirt using water and detergent.
   ……
   ……
2. Mention any **two** types of washing clothes
   (i)……
   (ii)……
3. State any **two** advantages of cleaning clothes using hand washing
   (i)……
   (ii)……
4. Mention any **two** disadvantages of using hand washing
   (i)……
   (ii)……
5. What is meant by machine washing?
   ……
   ……
6. State any **two** advantages of using machine washing.
   (i)……
   (ii)……
7. Give any **two** disadvantages of using machine to wash clothes.
   (i)……
   (ii)……

Importance of washing clothes

1. To eliminates germs and bacteria from clothes
2. It reduces incidence of infectious diseases such as respiratory, skin and diarroheal diseases
3. To remove dirt
4. To remove toxic chemicals from clothes
5. It helps to remove disease spreading vectors like lice, fleas and ticks
6. To reduce dye bleeding
7. It helps to promote personal hygiene
8. To avoid odor retention in clothes

Clothes are supposed to be washed inside out

Reasons for washing clothes inside out

1. To reduce pilling
2. To prevent colour bleeding
3. To protect decorative designs
4. To avoid odor retention

Items used to wash clothes

1. Clean water
2. Detergents
3. Soap
4. Basin

4. **Rinsing i**s the act of dipping soapy clothes in clean water to remove soap solution

5. **Wringing**
   It involves squeezing water out of the clothes

NOTE: Woolen clothes should be dried without wringing because it may loosen the fabric and makes them to lose their shape.

6. **Drying** is done by putting the clothes in the sun to dry. The heat energy from the sun causes evaporation of water from the clothes

Ironing:

Ironing is when you use a flat iron to press on the clothes to remove the wrings, twists and squeezes in the cloth.

Reasons for ironing clothes

1. To kill parasites like lice, itch mites etc
2. To kill germs
3. Ironing makes the cloth straight and smart

Activities after washing clothes

1. Drying clothes
2. Ironing clothes
3. Packing clothes

Activity

1. What are vectors?
   ……
   ……
2. Mention any **two** disease spreading vectors which live on clothes.
   (i)……
   (ii)……
3. State any **two** importance of washing clothes regularly.
   (i)……
   (ii)……
4. Apart from washing clothes, mention any **two** other uses of soap.
   (i)……
   (ii)……
5. State any **two** reasons why clothes are supposed to be washed inside out
   (i)……
   (ii)……
6. Mention any **two** items used to wash clothes.
   (i)……
   (ii)……
7. How is rinsing different from wringing?
   ……
   ……
8. State the main reason why woolen clothes should be dried without wringing.
   ……
   ……
9. Name the form of energy which helps to dry clothes.
   ……
   ……

10. Which element of weather helps to dry clothes at night?

……..

……..

11. Mention **two** reasons for ironing clothes to a P.7 candidate.

(i)……..

(ii)……..

12. State any **two** activities done:

a) after washing clothes

(i)……..

(ii)……..

b) before washing clothes

(i)……..

(ii)……..

THEME: HUMAN HEALTH
TOPIC 2: ACCIDENTS AND FIRST AID

LESSON

An accident is a sudden happening that causes harm to the body unexpectedly. Accidents can take place anywhere.

They may happen at home, school, place of work, where we go for prayers, on the pitch.

Effects of accidents on the body

- ☆ Accidents may result into simple injuries to the body like bruises and cuts, major Accidents may result into complications like broken bones, burns, scalds,
- ☆ Accidents may result into failure to breathe
- ☆ Accidents may result into unconsciousness
- ☆ Accidents may result into death
- ☆ Accidents may result into cause discomfort to the body

Examples of common accidents

☆ Fainting	☆ Bruises	☆ Burns
☆ Animal bites	☆ Choking	☆ Scalds
☆ Nose bleeding	☆ Food poisoning	☆ Cuts

Foreign bodies in natural openings

Whenever an accident happens on a person, first aids are supposed to be given immediately.

Activity

1. What is an accident?
   ……
   ……
1. State any **two** effects of accidents on causality.
   (i)……
   (ii)……
2. Mention any **two** major complications brought by accidents.
   (i)……
   (ii)……
3. Give any **two** common examples of accidents at school.
   (i)……
   (ii)……
4. State at least **two** common causes of accidents at school.
   (i)……
   (ii)……
5. **Below is a diagram of Obia Morgan jumping over a post. Use it to answer the questions that follow.**

a) Name the accident got by Obia Morgan after falling down.

……

……..

b) State any **two** pieces of advice you would give to Obia Morgan to avoid such accident.

(i)……..……

(ii)……..……

c) What name is given to the first help given to Morgan after getting an accident?

……..……..

d) Write **one** first aid you would give to Obia Morgan after getting the accident.

……..……..

LESSON

First aid

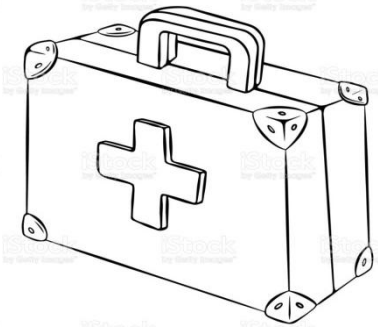
First aid is the immediate assistance given to a casualty before he/she is taken to the nearest health centre.

First aid is the first help given to causality before being taken to the hospital.

A casualty is a person who has been involved in an accident and needs assistance of first aid.

Reasons for giving first aid

1. To save life
2. First aid promotes quick recovery
3. To prevent further injuries
4. First aid stops bleeding
5. To relieve pain on the causality



What is a first aid kit?

A first aid kit is a set of equipment used when giving first aid for a certain type of an accident

Items found in a first aid kit

1. Cotton wool
2. Plaster
3. Razor blade
4. Bandage
5. Pain killers
6. A pair of scissors

Who is a first aider?

A first aider is any person who gives first help to a casualty.

Or a first aider is any person who gives assistance to a casualty.

Qualities of a good first aider

1. He/she should be quick in giving first aid.
2. He/she should be knowledgeable enough
3. He/she should have skills
4. He/she should be clean
5. He should be time saving

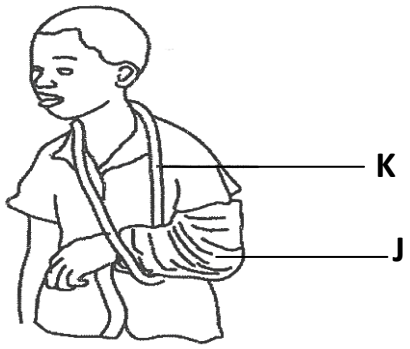
Activity

1. Who is a first aider?

……..……

……..
2. State the difference between a first aid box and a first aid kit.
……..
……..
3. State the main reason why a first aider must be time saving.
……..
4. State the importance of each of the following in first aid administration.
   (a) Stretcher……..
   (b) Safety pin……..

5. The diagram below shows a person with an injury .Use it to answer question 3

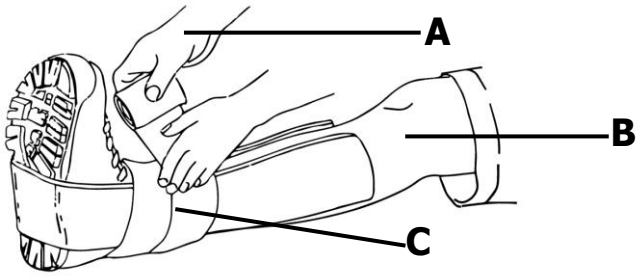


(a) Name the first aid component marked with letter **M** and **J** above.
   i. M:……
   ii. J:……
(b) How useful is the structure marked **M** and **J** to the injured person?
   iii. M:……
   iv. J:……

6. What is first aid?
……
……..
7. State any **two** reasons for giving first aid to a casualty.
   (i)……
   (ii)……
8. Who is a casualty?
……
……..
9. What is a first aid kit?
……
……..
10. Mention any **two** metallic items found in a first aid kit.
   (i)_____
   (ii) _____
11. Who is a first aider?
……
……..
12. State any **two** qualities of a first aider.
   (i)……

(ii).....

Use the diagram below to answer the questions that follow.



a) Name the scientific title given to the person represented by letter **A** and **B**.
.....
.....

b) State any **two** qualities of the person marked with letter **A**.
.....
.....

c) Of what importance is item marked with letter **C.**
.....
.....

d) State any **one** cause of the accident demonstrated above.
.....

12. Mention any **two** other examples of accidents which commonly occur at school.
(i).....
(ii).....

LESSON

BURNS:

A burn is a skin injury that can reach underlying tissues caused by dry heat.

A burn is an injury caused by a dry hot object.

Causes of burns

1. Through body contact with hot plates, cookers and hot burning charcoal.
2. Through body contact with un-insulated electric wires carrying current
3. Through body contact with chemicals like acids
4. Through body contacts with fire

Degree of burns

Degree of burns is a term used to describe how severe the burn is.

There are three types of degrees of burns. These are;

1. First degree burn
2. Second degree burn
3. Third degree burn

First degree burn

A first-degree burn is a minor burn in which there are no blisters formed.

What is a blister?

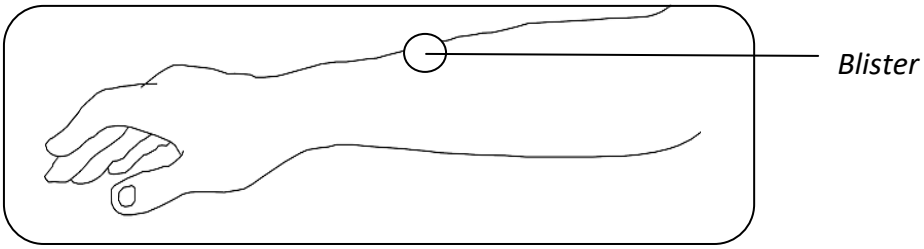
A blister is a raised skin with some liquid underneath.

A blister is a raised skin with a liquid underneath. The skin is tender for several days the skin is unbroken.

The only sign of a first-degree burn is that the skin is tender for several days after the accident.

First aid:

• Put the burned or scalded area in cool water immediately after the accident.



Reasons for putting burnt part in cold water

✓ To cool the temperature of injured part

✓ To prevent further damage of the underlying body cells

N.B; First degree burns need no dressing.

Second degree burn

A second-degree burn is a severe burn in which blisters are formed on the skin at the site of the injury.

They are severe than first degree burns.

Signs of second degree burns

a) Blister are formed

b) Unbroken blisters

First aid for second degree burn

- If the blister is not broken, leave it to prevent infection of the wound.
- If the blister is broken, wash the area with soap and clean water and then cover the skin with cloth to prevent flies bringing germs.
- Avoid putting things like fats, oils, coffee, herbs, or dung because they can cause the burn or scald to be infected.
- Don't put sugar because it attracts flies which can bring germs on to the wound
- The victim of the second degree burns should be given plenty of fluids to drink.

Third degree burn

This is the most severe burn in which the skin is burnt deeply and appears shinny white. It is caused by inflammable fire such as petrol, diesel and oil fire.

Characteristics of third degree burnt skins

☑ The skin is deeply burnt

☑ The skin is blackened

☑ The skin is charred

☑ The skin appears shinny white

☑ The skin is destroyed

First aid for a third-degree burn

✓ First put the burnt area in cold water for 10 minutes then cover with a clean cloth.

- ✓ Encourage the burnt casualty to drink a lot of fluids like ORS because victims of second- and third-degree burns lose a lot of water from their bodies through the burnt skin by evaporation.

Activity

1. What is a burn?
   ……
   ……
2. Mention any **two** objects that can burn people either at home or at school.
   (i)……
   (ii)……
3. State any **two** causes of burns.
   (i)……
   (ii)……
4. Why are people with a third degree burn encouraged to take plenty of drinks?
   ……
   ……
5. Why is it dangerous to break blisters in case of a burn?
   ……
   ……
6. Give **two** reasons why burnt parts should be put in cold water.
   (i)……
   (ii)……
7. Name the degree of burn in which there are no blisters formed.
   ……
   ……

Write the following abbreviations in full as used in first aid administration.

i) 3Bs
……
……

ii) ABC What is a blister?

……
……

8. Write any **two** first aids for second degree burn.
   (i)……
   (ii)……

LESSON

SCALDS

A scald is an injury caused by wet heat.

Or a scald is an injury caused by hot liquids.

Causes of scalds

- ✓ Through body contact with hot water.
- ✓ Through body contact hot tea, hot milk, hot soup, hot porridge

First aid of scalds

Put the injured part in cold water for at least 10 – 15 minutes

Reasons for putting injured part in cold water

- ✓ To cool the temperature of injured part
- ✓ To prevent further damage of the underlying body cells

NOTE: If the injured part cannot be put in cold water, pour cold water on the injured part

Prevention of scalds and burns

1. Keep hot objects far from children's reach.
2. Cook food in raised fire places
3. Prevent children from playing near fire places
4. Avoid children from playing with hot liquids and metals
5. Keep away inflammable liquids such as petrol from the living house.
6. Construct fire guards around places where cooking is done
7. People should use insulators when lifting hot objects from the fire
8. People should avoid using appliances with bare electric wires.

Activity

1. (a) What is a scald?
   ……
   ……
   (b) How is the cause of a burn similar to that of a scald?
   ……
   ……
   In which type of burn are blisters formed?
   ……
   ……
2. Mention any **two** causes of scalds.
   (i)……
   (ii)……
3. State the main first of scalds.
   ……
   ……
4. Give any **two** reasons for putting part injured by scald in cold water.
   (i)……
   (ii)……
5. Suggest any **two** ways of preventing scalds and burns.
   (i)……
   (ii)……
6. How are insulators important in the control of burns and scalds?
   ……
   ……
7. State **one** way in which burn is different from the scald.
   ……
   ……

Fever and convulsions

Fever is the condition of the body when its temperature goes beyond the normal. The normal body temperature is 37^oC or 98.4^oF.

Fever is not an illness but a symptom of many illnesses such as malaria, typhoid, measles, etc

Effect of fever

High fever causes convulsions

First aid for fever

- ✓ Remove most of the persons clothes
- ✓ Perform turbid sponging or put a wet cloth or cold compress on the person's skin like the forehead back or chest to reduce the body temperature.
- ✓ Encourage the person to drink more cold fluids than normal
- ✓ Report the sick person to a health worker.

High temperatures, sweating, coldness and shivering cause **convulsions**

Convulsions:

- ✓ Convulsions are sudden violent body movements which cannot be controlled
- ✓ These are uncontrollable jerky movements of the body.
- ✓ A convulsion is when the body shakes or jerks involuntarily.

Causes of fever and convulsions

- ✓ Diseases/illness like malaria, measles, meningitis, typhoid.
- ✓ Epilepsy (Fits)
- ✓ Exposure of the body to high temperature
- ✓ Poisoning

Effects of convulsions

It leads to unconsciousness

It can lead to death

First aid for convulsions

- ✓ Make the person get enough air supply
- ✓ Remove all the tight clothes and loosen others
- ✓ Clear the space where the victim is convulsing from
- ✓ Put an object between the teeth to prevent the victim from biting the tongue.

Activity

1. Why is tepid sponging an important First Aid to a person with high fever?
   ……
   ……
2. Why is a wet cloth put on the body of a person with fever?
   ……
   ……
3. What can be done to lower the temperature of a person with high fever?
   ……
   ……
4. What is the First Aid for high fever?
   ……

……..
5. Fever is not a disease but a symptom of many diseases.
   Mention any **two** of these diseases.
   (i)……..
   (ii)……..
6. Define the term convulsions.
   ……..
   ……..
7. State any **two** causes of fever and convulsions.
   (i)……..
   (ii)……..
8. Write down any **two** first aid for fever
   (i)……..
   (ii)……..
9. Mention any **two** first aid for convulsions
   (i)……..
   (ii)……..

LESSON

Near drowning and drowning.

Near drowning

- ✓ Near drowning is a condition when a person stops breathing due to having a lot of water in lungs but not yet dead.
- ✓ It is temporary loss of breath due to having one's lungs filled with water.

A person who has nearly drowned has only four minutes to live therefore a first aider must be very fast to save his life.

Drowning is dying as a result of the lungs being filled with water.

Common near drowning and drowning places

1. Swimming pools
2. Bath tubs
3. Ponds

4. Basins full of water
5. Ditches
6. Lakes and rivers
7. Deep water streams
8. Wells
9. Seas and oceans

Prevention of drawing and near drowning

1. People should not swim in deep water without life savers
2. People sailing on water should wear life jackets
3. People should acquire swimming skills.
4. Swimming pools should be fenced
5. Septic tanks and other sewerage systems should be covered
6. Children should not go near big water sources without grown up people
7. Bath tabs should not be left with water
8. Containers filled with water should be kept out of reach of children.

First aid for near drowning

1. Yell for help from people around
2. Remove the person from water as soon as possible
3. If the person is not breathing, lie the casualty on his back with the head tilted and perform mouth to mouth breathing (kiss of life)

Mouth to mouth resuscitation or a kiss of life *Pushing on the belly*

How to carry out mouth to mouth respiration

1. Make the victim to lie on his back
2. Tilt the head backwards and keep his mouth opened
3. Remove any object stuck in the mouth
4. Press the victim's nostrils with your fingers to close them
5. Put your mouth directly into the mouth so that the chest rises.
6. Stop a bit to let the air out and blow again
7. Repeat these many times (about 15 times in a minute)
8. Continue the steps until the victim can breathe again by himself.
9. Place the heels of your hands between the navel and the ribs of the victim
10. Make a quick strong push forward into the ribcage.

Activity

1. What is near drowning?
   .....
   .....
2. How is near drowning different from drowning?
   (i).....

(ii).....

3. Mention any **two** causes of near drowning and drowning.
   (i).....
   (ii).....
4. Mention **two** measures taken to prevent drowning and near drowning
   (i).....
   (ii).....
5. State any **two** reasons why swimming pools should be fenced
   (i).....
   (ii).....
6. Mention any **two** ways you can help a casualty for near drowning
   (i).....
   (ii).....
7. Why would it be dangerous for a boy of 11 years to try to remove an adult, who is near drowning, from water?
   .....
   .....
8. Suggest **two** things the boy in (b) above should do to save the adult from drowning.
   (i).....
   (ii).....
9. How does mouth to mouth breathing help a victim of near drowning?
   .....
   .....

Use the diagram below to answer the questions that follow

a) Name the accident whose first aid is given above.
   .....
   .....

b) Mention any two common places where such accident can happen.
   (i).....
   (ii).....

c) Mention any two ways of preventing the cause of such accident.
   (i).....
   (ii).....

LESSON

Fainting

Fainting is the brief loss of consciousness for a short time.

Causes of fainting

Reduced supply of enough food and oxygenated blood flowing to the brain

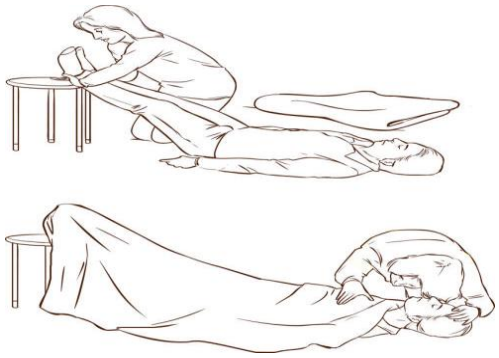
Conditions that can lead to fainting

The following conditions can lead to reduced blood supply to the brain or can lead to fainting.

1. Prolonged hunger
2. Standing in sunshine for a long period of time
3. Extreme sorrow or anger
4. Extreme pain
5. Loss of too much blood (Over bleeding)
6. Shocking news
7. Too much excitement
8. Heavy physical activities
9. Vigorous/strenuous exercises
10. Illness
11. Early pregnancy

First aid for fainting

1. Remove tight clothes around the neck, chest and waist
2. Put the casualty in an open space with fresh air
3. Make the casualty lie on the back facing up while raising the legs to encourage enough flow of blood containing oxygen to the brain



4. Fanning the casualty if the day is hot
5. Raise the legs of the victim higher than the head to allow blood flow faster to the brain

Activity

1. Define the term fainting.
   .....
   .....
2. What is the main cause of fainting?
   .....
   .....

3. Mention any **two** conditions that can lead one to faint.
   (i).....
   (ii).....
4. Suggest any **two** first aids for fainting.
   (i).....
   (ii).....
5. State any **two** qualities of a good first aider for fainting.
   (i).....
   (ii).....
6. State the main reason why the fainted causality is put in an open space with fresh air.
   .....
   .....
7. Mention any **two** emotional feelings that can lead to fainting.
   (i).....
   (ii).....
8. Why are the legs of a person who has fainted raised higher than the head when giving first Aid?
   .....
   .....

LESSON

NOSE BLEEDING

This is the blood flow from the nose

Causes

1. Over inhalation of dry air
2. Over blowing or one's nose with cold
3. Taking foods one's body is allergic to.
4. Taking medications for a long time (aspirin, garlic, ginger)
5. Over inhalation of dry air dries the blood vessels in the nostrils and they break.
6. Over blowing the nose over strains the blood vessels in the nostrils and they break.
7. Taking aspirin, garlic, and ginger prevents normal blood clotting and instead thin the blood.

First Aid

1. Let the causality sit and bend forward.
2. Squeeze the upper side of the nostrils.
3. Encourage the causality to breathe through the mouth to prevent over straining the blood vessels.
4. Keep the head of the victim higher than the level of the heart.
5. Put the ice wrapped in a towel on the nose and chic

Why?

To make the lining of blood vessels in the nostrils moist.

NB: do not make the causality to lean back because it allows blood to flow back to the throat which may cause vomiting or irritation.

Prevention

1. Keeping the nostrils moist

2. Taking citrus fruits such as oranges and lemons to strengthen the lining of blood vessels.
3. Taking foods one is not allergic to.

LESSON

Foreign bodies

A foreign body is any external matter that enters the body either through a natural opening or wound.

A foreign body is any unwanted matter that enters the body.

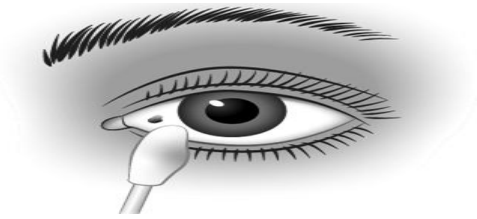
Examples of natural openings

- ✓ Mouth
- ✓ Nose
- ✓ Ears
- ✓ Vagina
- ✓ Anus
- ✓ Eyes

Examples of foreign bodies

- ✓ Seeds
- ✓ Grains
- ✓ Small stones
- ✓ Dirt/dust
- ✓ Broken glasses
- ✓ Coffee berries
- ✓ Insects
- ✓ Thorns
- ✓ Small bones
- ✓ Tear gas
- ✓ Nib of a pen
- ✓ Soil

First aid of foreign bodies in the eyes



1. Wash the eyes with plenty of clean water
2. Use a clean corner of a soft piece of cloth to wipe the foreign body out of the eye.

Note: Never use sharp objects because they can damage the eye and cause more pain.

If the foreign body remains in the eye, take the casualty to hospital.

First aid for foreign body in the ear

If it is an insect, tell the victim to sit and bend the head to one side and pour clean water.

Note: If it is not an insect, do not attempt to remove it because you can push if further and injure the ear drum.

First aid of foreign body in the nose

- ✓ Blow the nose if it is an insect, dirt, dust or small stones.

Foreign body in the throat

Foreign bodies in the throat are mainly large pieces of food or small bones.

Foreign bodies in the throat lead to choking and death.

First aid for foreign bodies in the throat

- Give the victim a number of sharp blows in the back
- Wrap your arms around his waist and press the belly upwards strongly.
- If the victim is unconscious, lie him on his back and make several sudden pushes on the belly using heels of your hands.
- It the person does not breathe, try mouth to mouth breathing.
- Take the victim to hospital
- If the victim is smaller than you, turn him over your folded leg and give sharp blows at the back.

Preventing accidents caused by foreign bodies in the throat

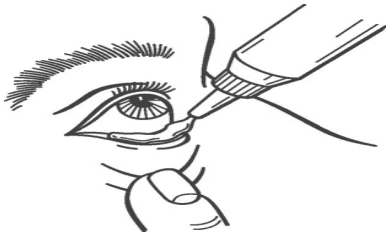
- ✓ Keep away objects like seeds buttons, beads, coins, bottle tops etc from children
- ✓ Food must always be chewed properly before swallowing
- ✓ Observe good eating habits
- ✓ Advising children not to put objects in their ears, eyes and nose

Prevention of accidents caused by foreign bodies

1. Keep away objects like seeds buttons, beads, coins, bottle tops etc from children
2. Food must always be chewed properly before swallowing
3. Observe good eating habits.
4. Avoid talking and laughing while eating.
5. Teach the children not to put objects in their ears, eyes, nose, rectum and vagina.
6. Advising children not to put objects in their ears, eyes and nose

Activity

1. Define foreign bodies.
   .....
   .....
2. State any **two** examples of natural openings found in human being.
   (i).....
   (ii).....
3. Suggest **two** examples of foreign bodies.
   (i).....
   (ii).....
4. Give any **two** first aids of foreign body in the nose.
   (i).....
   (ii).....
5. **Below is a diagram of a first aid being given to a sense organ belonging to Ritah.**



a) Name the sense organ shown above.
   .....
b) Mention any **two** importance of sense organ above.
   (i).....
   (ii).....
c) Name any **two** foreign bodies to the sense organ above.
   (i).....
   (ii).....
d) State **one** reason why one must not use sharp objects to remove foreign bodies from the sense organ above?
   .....
   .....
e) State any **two** first aids to foreign bodies to the sense organ above.
   (i).....
   (ii).....

6. State **one** first aid of foreign body in the throat.
   ……
   ……
7. Mention any **two** ways of preventing accidents caused by foreign bodies.
   (i)……
   (ii)……

LESSON

Poisoning

Poisoning is the act of taking any harmful substance which can affect our health.
Poison is any substance which when taken into the body may damage our health or cause death.
Poison is any substance once taken into the body damages body organs or causes death.
Poison can be inform of either solid, gas or liquid

Ways poison can be introduced into the body

1. Through food
2. Through air
3. Through animal bites (snakes, rapid dogs)
4. Through injections
5. Through swallowing (orally)

Common poisonous substances at homes

1. Rat poison
2. Insecticides
3. Paraffin
4. herbicides
5. Acaricides
6. Root poison
7. Jik
8. Petrol
9. Drugs
10. Wormcides
11. Diesel

Signs of a poisoned person

1. Vomiting
2. Rapid breathing
3. Diarrhoea
4. Loss of body balance
5. The person feels thirsty
6. Fever and sweating
7. Bleeding internally/externally
8. Mental confusion

First aid for poisoning

Give the casualty plenty of fluids like water, juice, milk to dilute the poison
Note: A person who has taken paraffin/ jik should not be made to vomit because it causes more damage to the lungs, throat and stomach.

Preventing poisoning

1. Keep petrol, paraffin out of reach of children
2. Keep drugs out of reach of children
3. Follow the doctor's prescription
4. Buy drugs from recommended pharmacies

5. Dispose expired drugs.
6. Avoid drugs misuse

The ABC technique followed before giving first aids.

A- Air way
B- Breathing
C- Circulation

Activity

1. What is poisoning?
   ……
   ……
2. How is poisoning different from poison?
   ……
   ……
3. State any **two** states of matter in which poison do exist.
   (i)……
   (ii)……
4. Mention any **two** common poisonous substances at home.
   (i)……
   (ii)……
5. Suggest **two** signs of a poisoned person
   (i)……
   (ii)……
6. Give any **two** first aids for poisoning.
   (i)……
   (ii)……
7. What First Aid would you give to a child who has taken paraffin?
   ……
   ……
8. Give the main reason why person who has taken paraffin should not be made to vomit.
   ……
   ……

LESSON

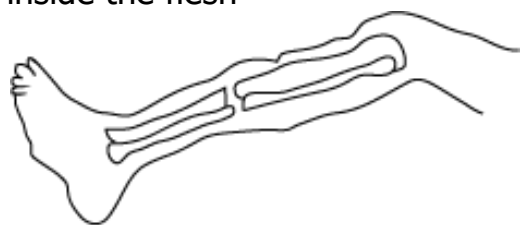
Fractures

A fracture is a broken or cracked bone in the body.

Types of fractures

✓ **Simple fracture**

Simple fracture is a type of fracture where the broken or cracked bone remains inside the flesh



Symptoms of simple fracture

☆ Swelling of the injured part

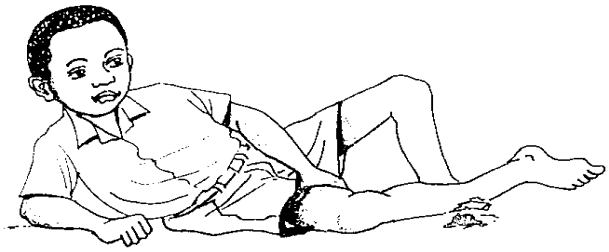
☆ Painful feeling when touching the injured part
☆ Unable to put the injured part in the normal position
☆ The broken limb appears crooked.
☆ Failure to move the fractured part with ease.

Compound fracture

✓ Compound fracture is a type of fracture where the broken or cracked bone comes out of the body.

Signs of compound fracture

- The broken bone is seen pushing out of the skin.
- The injured limb may be shortened or may lie in an unusual position.



A boy with a compound fracture

- The casualty may have felt a snap of the bone.
- Swelling and bruising of the fractured part.
- Severe pain and tenderness of the site of injury.
- Excessive bleeding

✓ **Green stick fracture**

Green stick is a type of fracture which occurs in young children where the bone tears like a twig.

Symptoms of green stick fracture

☆ The injured limb may be shortened or may lie in an unusual position.
☆ The casualty may have felt a snap of the bone.
☆ Slight swelling and bruising of the fractured part.
☆ Painful when pressing the painful part

Causes of fracture

1. Accidents
2. Rough play/games
3. Vigorous exercises

First aid for fractures

1. Tie splints around the injured part.
2. Removes any object which may have caused the fracture.
3. Stop any bleeding around the injured part.
4. Give comfort and assurance that he / she is to recover soon.

5. Prevent infection of the injured part by using antiseptics.
6. Prevent any further movement of the injured part.

Apply a splint to keep the bones in position. **Note**: Splints are used to keep the broken bones in their normal position

Splints also control further injuries.

Note the following:

When considering first aid for a fracture, you should consider the 3Bs.

B- Breathing
B- Bleeding
B- Broken bone

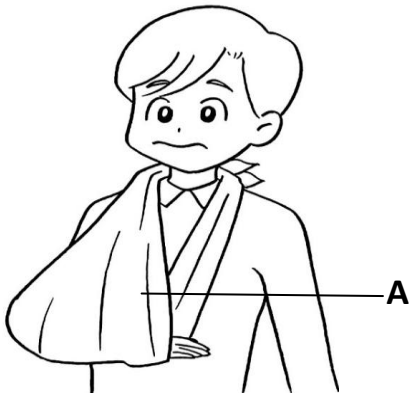
Prevention of burns and scalds:

1. Keep hot objects far from children's reach.
2. Cook food in raised places.
3. Prevent children from playing near fire places.
4. Avoid children from playing with hot liquids and metals.
5. Keep away inflammable liquids such as petrol from the living house.
6. Construct fire guards around places where cooking is done.
7. People should use insulators when lifting hot objects from the fire.
8. People should avoid using appliances with insulated electric wires.

Activity

1. Define the term fractures.
   .....
   .....
2. State any **two** common types of fractures.
   (i).....
   (ii).....
3. State the type of fracture:
   a) Where the broken or cracked bone remains inside the flesh.
   .....
   .....
   b) Where the broken or cracked bone comes out of the body.
   .....
   .....
4. Suggest **two** common causes of fracture in adults.
   (i).....
   (ii).....
5. Name the first aid item used to keep the broken bones in their normal position.
   .....
   .....
6. When considering first aid for a fracture, you should consider the 3Bs. Write all these 3Bs.
   .....
   .....
7. State **two** ways of preventing burns and scalds at home.
   (i).....
   (ii).....

Below is a diagram of first aid component. Use it to answer questions that follow.



a) Name the first aid element marked with letter A.
.....
.....

b) How important is the element of first aid above to the causality?
.....
.....

c) State any **one** common cause of accident demonstrated above.
.....
.....

d) Name the part of the body affected by the type of accident shown above.
.....
.....

e) Apart from saving life, mention any **two** other reasons for giving first aid.
.....
.....

Muscle wasting

This is the reduction in the mass of the muscles. It is caused by lack of body exercise and malnutrition

Sprains and strains

- ✓ A sprain is an injury on the ligament.
  A sprain is a torn or over stretched ligament.
- ✓ A strain is a torn or over stretched muscle as a result of violent movement.

Signs and symptoms of sprains and strains

1. Severe pain at the injured part.
2. Sudden swelling and bruising of the injured part.
3. Failure to move the affected part with ease.
4. Pain at the point of injury
5. The point of sprain or strain becomes hot

First aid for sprains and strains

1. Use a firm bandage to support the affected part.
2. Movement of the affected part should be stopped.
3. In case of a sprained wrist, an arm sling should be applied for support.
4. Take the patient to a doctor.

Dislocation

A dislocation is when the bones that form a joint have been displaced.
Dislocation is the displacement of one or more bones at a joint.

Signs and symptoms a dislocation

1. Severe pain at the affected part.
2. Sudden swelling and bruising of the affected part.
3. Failure to move the affected part with ease.

First aid for dislocation

1. Prevent any further movement of the affected part.
2. Comfort the patient and assure him / her of quick recovery.
3. Take the patient to the doctor.
4. Avoid tampering with the affected part by trying to put the bones back into their normal position.

Activity

1. What is a sprain?

   .....

   .....

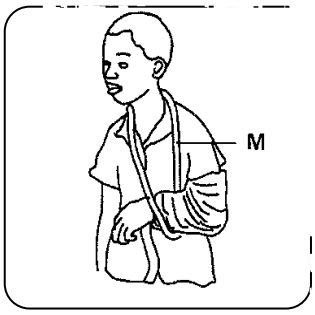
2. How is sprain different from a strain?

   .....

   .....

3. Suggest any **two** signs and symptoms of sprains and strains

   _____



   _____

4. Write down **two** first aid for sprains and strains

   .....

   .....

5. Name the first aid component marked **M** above.

   .....

   .....

6. How useful is the structure marked **M** to the injured person?

   .....

   .....

7. State ant **two** signs and symptoms a dislocation.

   .....

   .....

8. State any **two** ways of keeping the muscular and skeletal systems healthy

   .....

   .....

THEME: HUMAN HEALTH

TOPIC: SANITATION

LESSON

1) **Sanitation** is the keeping of our environment clean.
2) Sanitation is the steps taken to promote public cleanliness involving community effort to disease prevention.
3) **Sanitation** is the general cleanliness of the environment.

Elements of sanitation

Sanitation involves the following measures:

1. Provision of good housing
2. Proper disposal of human wastes
3. Supply and use of safe water
4. Vector control
5. Safe guarding of food against contamination
6. Prevention of air and water pollution

Ways of promoting sanitation.

1. Draining away all stagnant water to deny mosquitoes breeding grounds.
2. Digging rubbish pits and provision of dustbins for proper disposal of rubbish.
3. Having a latrine or toilet for proper disposal of faeces and urine.
4. Spraying vectors with insecticides.

Reasons for practicing good sanitation

1. Good sanitation prevents spread of diseases.
2. It prevents accidents like cuts from broken bottles.
3. It prevents water and air pollution.
4. Good sanitation prevents food contamination.

Activity

1. Define the word **sanitation.**
   .....
   .....
2. State any **two** elements of sanitation.
   (i).....
   (ii).....
3. Write down **two** ways of promoting sanitation at home.
   (i).....
   (ii).....
4. State **two** reasons for practicing good sanitation.
   (i).....
   (ii).....
5. Give any **two** activities which help to maintain sanitation at home.
   (i).....
   (ii).....
6. State **two** ways in which sanitation prevents spread of diseases.
   (i).....
   (ii).....
7. Mention any **two** accidents we can reduce by practicing sanitation.

(i).....

(ii).....

LESSON

Latrines

A latrine is a place for urination and defecation.

A latrine is a place where human wastes are disposed of.

Latrines and toilets are very important to our health because they keep faeces and urine in places where flies, other insects, animals and people cannot bring them to our food and shelter.

Types of latrines;

1. Ordinary pit latrines
2. Ventilated improved Pit latrines
3. Toilets (Water closets)
4. Potties

Characteristics of well built pit latrines;

1. They are deep to hold faeces of the users for so many years.
2. They have strong floors to stand on and smooth enough to sweep and clean.
3. They have enough holes to allow in faeces and urine but small enough to prevent children from falling in.
4. They have a lid to cover the hole completely and keep houseflies out of it.
5. They have spiral walls and doors to provide privacy to the user..
6. They have a roof which protects people from rain and sunshine.
7. It should be built below the water table or source to avoid contamination

The VIP latrine

It is a special type of a latrine with a vent pipe to take out smell and a screen on top to trap flies.

Important features of a VIP latrine

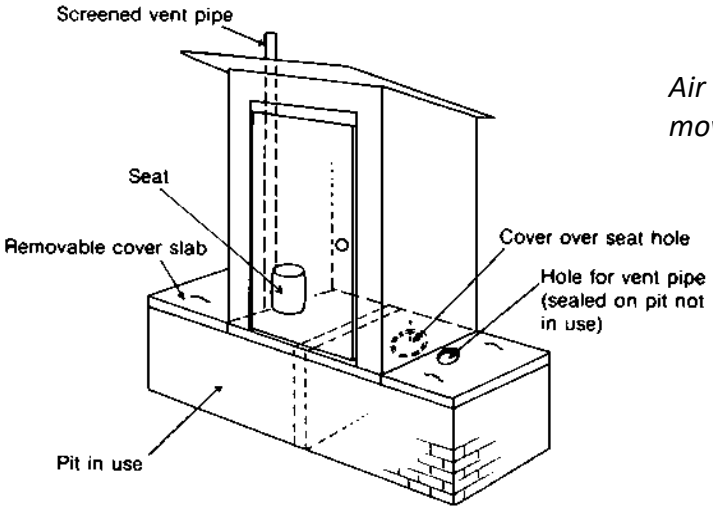
1. Vent pipe: it lets out bad smell.

2. Screen on top: traps flies until they die.

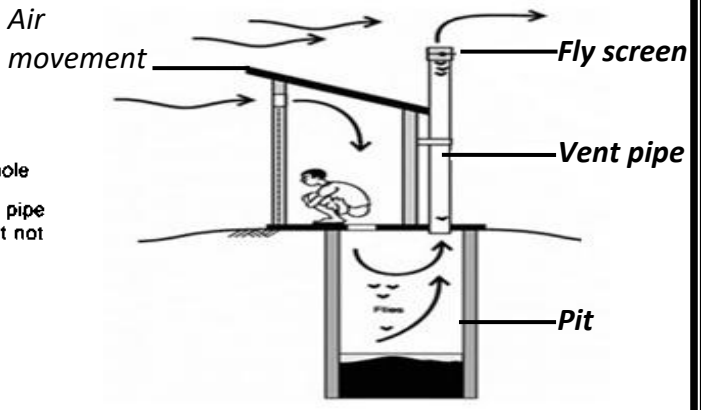
3. Spiral shaped walls- no doors for free circulation of air.

It has no lid to let in air/ to allow free air circulation in the pit

Structures of VIP latrines



External structure of a VIP latrine



Internal structure of a VIP latrine

☆ A screen is used for trapping the flies inside the pits

☆ Vent pipes takes bad smelly air out of the pit to avoid latrines smelling badly.

ACTIVITY

Give **one** reason why a VIP latrine is referred to as;

i) Ventilated: ……..

ii) Improved:……

2. Write VIP in full.

……..

……..

3. Why is it not advisable to cover the hole of a VIP latrine?

……..

……..

4. Of what importance are the following features to a VIP latrine?

a) Vent pipe: ……

b) Screen:……..

5. How far should a VIP latrine be constructed from;

i) water source……..

ii) Kitchen……..

6. Point out **two** diseases that can break out due to poor sanitation.

……..

……..

7. How does a VIP latrine reduce house flies in the environment?

……..

……..

8. Why is it advisable to leave the pit of a VIP latrine open?

……..

……..

9. Name the difference between pit latrine and VIP latrine.

……..

……..

Differences between a VIP latrine and an ordinary pit latrine;

1. A VIP latrine has a vent pipe where as an ordinary pit latrine doesn't have a vent pipe.
2. A VIP latrine doesn't have a lid where as an ordinary pit latrine has a lid.
3. A VIP latrine has a screen whereas an ordinary pit latrine doesn't have a screen.

Similarities between a VIP latrine and an ordinary pit latrine

1. Both latrines can be smoked.
2. Both latrines have holes
3. Both latrines have slabs.

Advantages of VIP latrine over an ordinary pit latrine;

1. A VIP latrine does not smell badly.
2. A VIP latrine has a screen which traps houseflies.

Cover the pit in any of the following ways;

i. Use strong poles of hard timber or metal bars

ii. Build a house on top of the pit.

iii. Fix a net or screen on top of the vent pipe.

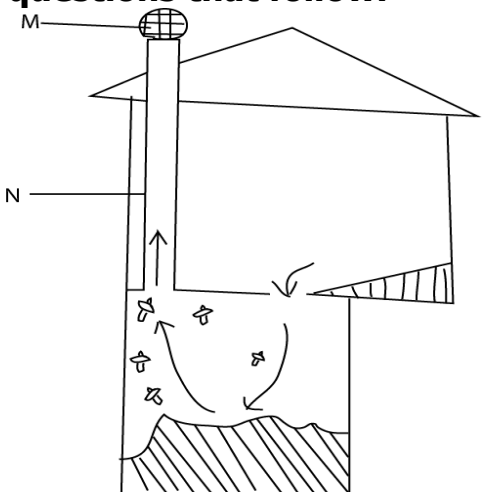
iv. Place the pipe in its hole.

How to maintain a VIP latrine

1. The floor should be swept or washed if it's cemented.
2. Wash or remove any faeces, insects, cobwebs and dust from walls and corners ofthe roof
3. Trim grass and bushes around the latrine
4. While using a latrine, make sure that the faeces go directly into the hole.
5. Clean with any soft tissue or leaves
6. Wash your hands with soap after using the latrine.

Activity

1. **The diagram below is of a ventilated improved Pit (VIP) latrine. Use it to answer the questions that follow.**



(a) Name the parts marked **M** and **N**

(i) **M**: .....

(ii) **N:** .....

(b) Give the function of the part marked **M**

(i).....

(ii).....

(c) What do the arrows in the diagram show?

.....

.....

2. State one advantage of the ventilated improved pit latrine (VIP) over ordinary pit latrine.

.....

.....

3. Give any **one** way in which a VIP latrine is different from an ordinary pit latrine.

.....

.....

4. Mention any **two** common insects found on latrines.

(i).....

(ii).....

5. What good health habit should be practiced after visiting a latrine or toilet?

.....

.....

6. Why is a Ventilated Improved Pit latrine left without a cover?
……
……
7. Give any **two** characteristics of a Ventilated Improved Pit Latrine
(i)……
(ii)……
8. Give any **two** reasons why people should use latrines /toilets properly.
(i)……
(ii)……
9. How does a vent help to reduce smell in a VIP latrine?
……
……
10. Why is it not necessary for a VIP latrine to have a lid for the hole?
……
……

LESSON

Proper site for pit latrines

- ✓ All latrines should be below or downhill near the water source. This prevents faeces from mixing with water to contaminate it.
- ✓ All latrines should be 30 metres away from water sources to allow water which comes into contact with faeces to filter out into the soil.
- ✓ All latrines should be at least 10 metres away from school, home, hotel to prevent bad odour from reaching people.

TOILETS (WATER CLOSET SYSTEM)

- ✓ This is a bowl shaped device used for disposing human waste, which is flushed away the bowl by water from a tank (cistern).
- ✓ Toilets are commonly found inside modern houses in cities and towns.
- ✓ Toilets unlike latrines use water to flush waste matter into septic tanks or into the sewage pipes.

A good toilet should have the following:

- ✓ A tank that stores water for flushing
- ✓ A seat with a cover for sitting.
- ✓ A pipe that takes water from the tank to the bowl and another that takes it to septic tank.
- ✓ A bowl: This is a basin containing water where faeces and urine are deposited
- ✓ A handle: It is found on the water closet. We pull it or push it to flush the faeces and urine away down the septic tank or sewerage system.
- ✓ Septic tank: This is a very big underground tank where faeces and urine are stored until they are taken away by a cesspool emptier to the sewerage tanks for treatment.

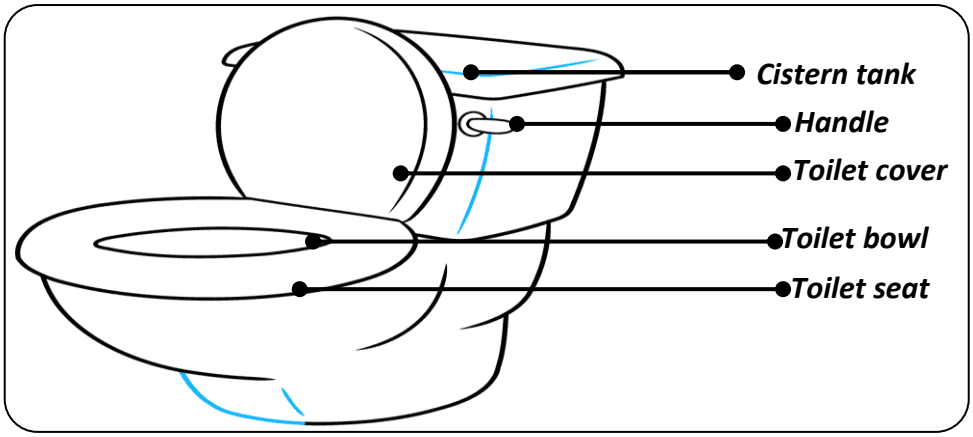
The waste materials in the septic tanks are called **sewage**.

Sewage from septic tanks may be carried away by pipes (sewers) for treatment to make it less harmful.

Where there is no pipe system, it is carried using vehicles called **cesspool emptier**.

In Uganda, Uganda National Water and Sewerage Corporation (NSWC) is the one responsible for connecting and collecting or emptying septic tanks.

Structure of a water closet toilet



Functions of the parts of a water closet toilet

A seat

It has a cover to protect it.

It is where a person sits to deposit human waste.

1) A bowel

It is a basin containing water where faeces and urine are deposited.

2) Lid

It covers the bowel to prevent vectors from coming into contact with faeces and urine.

3) Water closet/tank

It holds water for flushing.

4) Handle

It is pulled or pushed to flush faeces and urine away.

5) Sewage pipes

They carry faeces and urine to the septic tank or sewage system.

Advantages of a flush toilet system

1. Can be put inside the house and vehicles

2. They are easy to clean

3. They are user friendly, even young children can use them.

Disadvantages of a flush toilet system

1. They are very expensive

2. They require a lot of water to function

3. They are only used where there is piped water.

4. They can easily get blocked if hard objects are put in it.

Ways of maintaining toilets clean;

1. Keep the seat clean, do not step or urinate in them.
2. Flush the toilet away after use.

3. Wash hands with clean water and soap after use.
4. Avoid using any other hard material like clothes, sticks, stones because they block the pipe to the septic tank.
5. Use only soft tissue or toilet paper after cleaning yourself
6. Do not put any other thing in the toilet apart from faeces, urine and toilet tissue.
7. Do not use the toilet when it is blocked.

Activity

1. What advice would you give to a person wishing to construct a pit latrine?
   ……
   ……
2. Write Ecosan in full.
   ……
   ……
3. Suggest any **two** problems faced by urban toilet systems.
   (i)……
   (ii)……
4. How is a VIP latrine different from a conventional pit latrine?
   ……
   ……
5. Point out **one** way of controlling faecal diseases.
   ……
   ……
6. Write down any **two** ways of maintaining water borne toilets.
   (i)……
   (ii)……
   Write NWSC in full.
   ……
   ……
7. Give any **one** detergent used when cleaning toilets.
   ……
   ……
8. Of what importance is a lid to water closet toilets?
   ……
   ……

LESSON

Potties

Potties are small containers used by young children for depositing faeces and urine.

Uses of potties;

It collects faeces and urine of young children.

Ecosan toilets

These are toilets which help to separate urine from faeces at the source and the faeces are not mixed with water.

- Ecosan comes from the word **ecological sanitation** where we get Eco from the word **ecological** and **san** from the word sanitation.

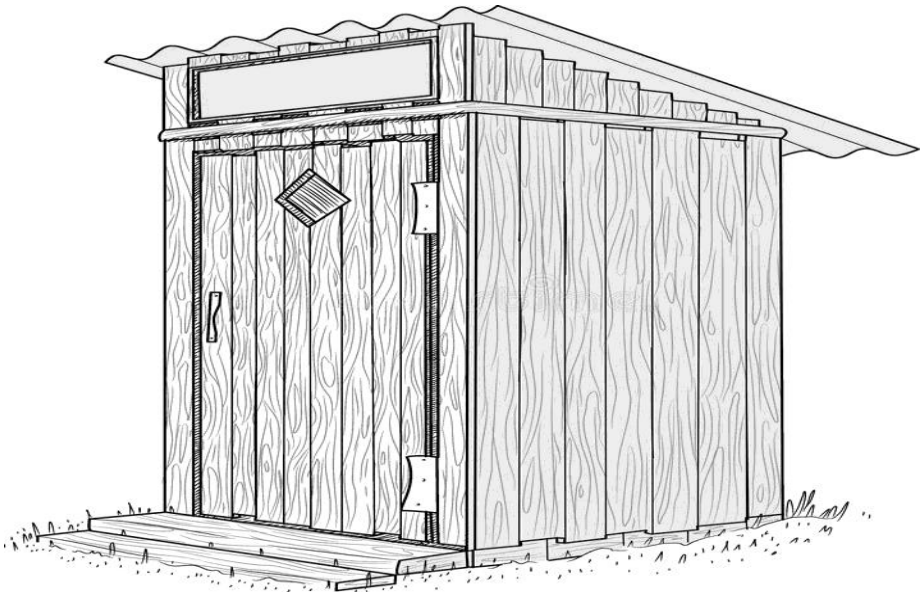
- Ecological comes from the word ecology.
- Ecology is the interrelationship between living organisms in an ecosystem or their surroundings.
- An ecosystem is made up of all the living things in a habitat as well as the nonliving part of the environment.
- Ecological sanitation is the type of sanitation that recognizes human excreta and water from households not as a waste but as a resource that can be recovered, treated and where possible used again.
- Ecological sanitation is based on the idea that urine, faeces and water are resources in an ecological cycle.
- Ecological sanitation is away that protects public health, prevent pollution and at the same time returns valuable nutrients and humus to the soil.
- In ecological sanitation, urine and faeces are separated at the source and are not mixed with water. In this way, this sanitation avoids contamination of large volumes of water with pathogens or harmful germs. . This makes it easy to separate urine and faeces and makes it easier to recover and recycle nutrients such as phosphorous and nitrogen.
- After separation, urine is allowed to ferment for about two weeks and then it is diluted with water and then applied to the soil as a hygienic fertilizer.
- The faeces on the other hand are composted and then applied to the garden.
- Ecological sanitation system safely recycles excreta and other organic waste products to crop production in such a way that the use of non- renewable resources is minimized.
- Ecological sanitation is being promoted as an alternative sanitation in rural areas with difficult condition for constructing ordinary pit latrines.

Types of Ecosan toilets

In Uganda, there are only three which are being promoted:

These are:-

- ✓ Urine diversion dry toilet (UDDT)
- ✓ Arborloo toilet
- ✓ Fossa ulterna



Problems faced by urban toilets;

1. Blockage due to use of hard things.

2. Lack of water for flushing
   - ✓ In case of leakage of sewage from pipes, contamination of water occurs. This may lead to easy spread of water borne diseases.

- It is constructed above the ground [e] It has two chambers which are used in turns of defecation and outlet for urine.
- There is no mixing of urine and faeces
- When the first chamber is filled, it is closed for six months in the meantime the second chamber is opened for use.
  - During the six months, the faeces in the first chamber decompose. Then the chamber is opened up and the compost scooped and taken to the garden for soil conditioning
- Add dry ash, lime sawdust, husks or dry soil after every defecation.
- It is wise to premix the dry soil and ash at a ratio of four parts of soil to one part of ash, put it in a container and store it the toilet for use.

Activity

1. Give any **two** reasons why people should use latrines /toilets properly.
   (i).....
   (ii).....
2. Give any **one** reason why a latrine should be 10 metres away from the living house.
   .....
   .....
3. Our school pit latrine smells a lot and is always full of flies. What measures can we take to prevent this situation?
   .....
   .....
4. Why should a pit latrine be covered?
   .....
5. Why is it not good to pour paraffin into a pit latrine?
   .....
   .....
6. State any **two** importance of human faeces to the farmers.
   (i).....
   (ii).....
7. Write down any **two** health problems associated with poor feaces management at home.
   (i).....
   (ii).....

LESSON

Importance of using ash or lime:

1. It lowers the moisture content of the faeces.
2. It eliminates bad odour or smell.
3. It makes it easier to handle and transfer the materials
4. It makes faeces less attractive to fly for breeding
5. It raises the acidity of the contents which helps to kill the germs or pathogens

Advantages of using Ecosan toilets

1. They can be constructed in a small space.
2. The UDDT saves the burden of digging space.
3. The UDDT saves land for digging pit
4. They give ready and cheap manure latrines. which can
5. They preserve the fertility in the soil.
6. They are user friendly because they don't waste land.
7. UDDT reduces the cost of frequent construction of latrines.

Problems or disadvantages of using Ecosan toilets

1. The urine diversion pipe blocks yet it does not provide safe cleaning.
2. Lack of ash or lime for daily use.
3. No one wants to remove the compost from the chambers or the pits.
4. Some people do not know how to use the UDDT so urine easily mixes with the faeces and cause a lot of smelling.
5. The UDDT are not user friendly for the old and the disabled because they have to climb the high stairs.
6. They are not user friendly to Muslims who use water to clean themselves.
7. They are expensive to construct.

Importance of using toilets and latrines;

1. They prevent houseflies from spreading germs
2. They prevent contamination of water sources if properly used.
3. They promote sanitation
4. They control air pollution.

Diseases spread due to poor sanitation;

1. Cholera
2. Typhoid
3. Dysentery
4. Diarrhoea
5. Hepatitis
6. Malaria
7. Elephantiasis
8. Yellow fever
9. Dengue fever
10. Sleeping sickness.
11. Worm infections

12. Activity

1. Why should a pit latrine be smoked from time to time?
   ……
   ……
2. What is the recommended minimum distance between a drinking water and VIP latrine?
   ……
3. State any **one** way of controlling the bad smell in an ordinary pit latrine.
   ……
   ……
4. Give **one** way in which bacteria in pit latrines are useful.
   ……
5. Give **one** reason why washing of hands after visiting a latrine is a good practice.
   ……

……..
6. Mention any **two** common insects found in the latrines.
   (i)……..
   (ii)……..
7. Give **two** items used for cleaning hands after visiting a latrine.
   (i)……..
   (ii)……..

THEME: HUMAN HEALTH
TOPIC 6: THE REPRODUCTIVE SYSTEM

LESSON

- ✓ Growth is an increase in the size of the physical body of an organism.
- ✓ Development is an increase in complexity of an organism.

These two things are ever happening in our lives but they appear more at puberty in adolescence stage.

- ✓ Puberty is a period of time when a boy or a girl becomes sexually mature.
- ✓ Adolescence: Is a transitional stage between childhood and adulthood.
- ✓ An adolescent is a boy or girl who is between childhood and adulthood.

Stages of adolescence;

There are four stages of adolescence/changes in adolescents. They are;

- ➢ Primary sex characteristics
- ➢ Secondary sex characteristics
- ➢ Social and emotional changes
- ➢ Out of step adolescent changes

1. Primary sex characteristics

These are changes involving the sexual organs to prepare them for their function in reproduction.

They can also be called basic sex characteristics.

Examples of primary sex characteristics in boys;

1. The penis increases in size.
2. The testes start producing sperms
3. Wet dreams start.

Examples of primary sex characteristics in girls

1. The uterus and the ovaries develop
2. Production of ova begins (Ovulation).
3. Menstruation period begins.

2. Secondary sex characteristics

These are changes that are related to physical features that distinguish a grown up man from a mature woman.

They can also be called physical sex characteristics.

Examples of secondary sex characteristics in boys (males);

1. In males, changes are as a result of the production of a hormone called testosterone.
2. The voice breaks and deepens as the larynx enlarges
3. Growth of hair under the armpits on the face, chest and around the sexual organs.
4. The sweat glands become more active.
5. The body becomes more muscular showing masculine structures.
6. Pimples develop on the face

In girls (Females)

The ovaries produce two hormones which coordinate the ovaries to control the body reactions.

These include; Oestrogen and progesterone

Characteristics include;

- Development of the breasts and stimulation of the mammary glands
- Enlargement of the hips and lining of the uterus
- The sweat glands become more active
- There is growth of hair under the arms on the pubes and around the sexual organs
- Heavier development of the skeleton and muscular structures showing feminine structures
- The face becomes smooth and good looking
- The voice becomes soft and attractive.

LESSON

3. Social and emotional changes.

These are changes that take place in mind and not seen and may not be realized by the adolescent.

N.B: They occur the same way in boys and girls. These changes include;

- The adolescent becomes interested in the member of the opposite sex.
- The adolescent reacts quickly to different situations i.e a boy or a girl who was docile, humble and cooperative becomes resistant, irritable and disobedient.
- The adolescent wants a lot of freedom.
- The adolescent becomes angry and disappointed quickly.
- The adolescent rejects the rules of his/her parents
- The adolescent wants to be looked and be recognized as mature.
- The adolescents move in groups with boys and girls of the same age and interest.

N.B: This group is` called **peer group**

4. Out of step adolescent changes;

These are changes which occur differently to different people in the same age group.

Some of these changes occur earlier or individuals. They include;

1. The boy who was previously short may find himself taller compared to his age mates
2. A girl who was once considered small may find herself too fat compared to her age mates.
3. Anxiety may be created on those who mature later and left behind by their age mates.
4. Those that mature late may be influenced by those who mature early.

Problems caused by adolescence stage.

1. It brings conflicts between adolescents and their parents.
2. It brings conflicts between adolescents' culture and religion
3. It creates sexual conflicts amongst adolescents
4. It creates forms of wishes, desires, anxiety and fantasies caused by sexual maturation.
5. This stage also brings conflicts among adolescents.
6. This stage leads to development of antisocial behaviours such as sex offences.
7. Some adolescents can end up being imprisoned
8. Some adolescent girls may drop out of school due to early pregnancies.

How to help the adolescents

1. Advice the adolescent to share their problems with the elders
2. Guide the adolescents on the dangers of early sex
3. Advice the adolescents on the dangers of joining bad peer groups
4. Adolescents should be made aware that body changes are normal.
5. Adolescents should be made aware that everyone undergoes these changes

Activity

1. Define the term growth.
   ……
   ……
2. How is growth similar to the development?
   ……
   ……
3. What do you understand by the word puberty?
   ……
   ……
4. Mention any **two** examples of primary sex characteristics in boys.
   (i)……
   (ii)……
5. Suggest any **two** examples of primary sex characteristics in girls.
   (i)……
   (ii)……
6. Give any **two** examples of secondary sex characteristics in males.
   (i)……
   (ii)……
7. Mention any **two** social and emotional changes experienced by both boys and girls.
   (i)……
   (ii)……
8. What is emotional change?
   ……
   ……
9. Mention **two** changes that occur in the mind of an adolescent.
   (i)……
   (ii)……

10. State **two** problems caused by adolescence stage.
(i).....
(ii).....

11. Mention any **two** ways of helping adolescents while at school.
(i).....
(ii).....

LESSON

Reproduction in humans

- Reproduction is a process where living things increase in number.
- Reproduction is the process by which living things multiply themselves by producing young ones of their own kind.
- Reproduction is the process by which living organisms produce young ones similar to them.

Forms of reproduction;

1. Sexual reproduction
2. Asexual reproduction.

Asexual reproduction;

This is a type/form of reproduction where reproductive cells are not involved.

Examples include:

1. Binary fission in bacteria and protozoa
2. Spore formation in fungi
3. Budding in yeast and coelenterates
4. Vegetative propagation
5. Seed propagation

Sexual reproduction

It is a type/form of reproduction where reproductive cells are involved.

Activity

1. Define the word reproduction.
.....
.....

2. Mention any **two** forms of reproduction.
(i).....
(ii).....

3. What do you understand by the word asexual reproduction?
(i).....
(ii).....

1. Mention **two** examples of living organisms that reproduce by binary fission.
(i).....
(ii).....

2. What type of reproduction is seed propagation?
.....
.....

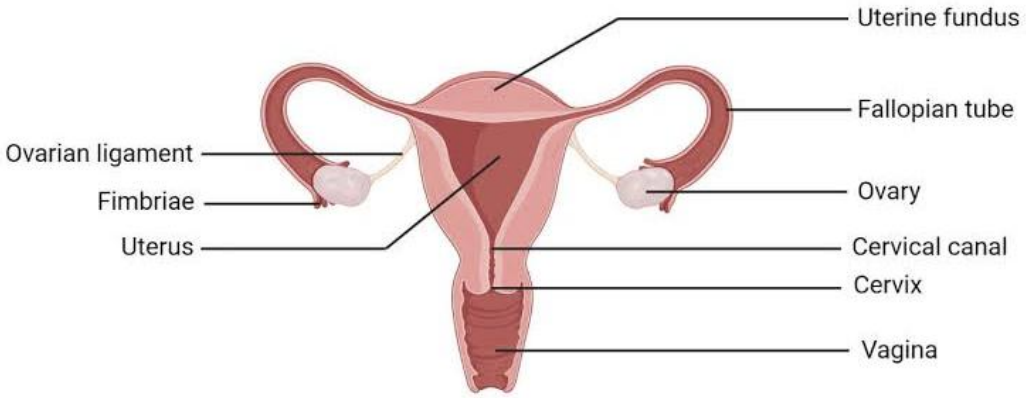
4. Name the form of reproduction in which bacteria undergo.
.....

……..
5. Which type of reproduction involved reproductive cells?
……..
……..

Terms used in sexual reproduction

- **Gametes**; these are reproductive cells.
- **Sperm cells**: These are male reproductive cells in animals.
- **Ova/eggs;** Female reproductive cells in animals.
- **Pollen grains:** They are male reproductive cells in flowering plants.
- **Ovules:** They are female reproductive cells in flowering plants.
- **Gonads:** These are specialized parts which produce reproductive cells.

Diagram of the female reproductive organ;



Functions of the parts;

- **Vulva**: It directs the penis into the vagina.
- **Vagina**:
  - ☆ This is where the sperm cells are deposited.
  - ☆ It also allows the baby to pass through at the time of birth (Birth canal)
  - ☆ It holds the penis during sexual intercourse.
- **Cervix**:
  - ☆ It is a ring of muscular which closes the lower end of the uterus during pregnancy
- **Uterus/womb**:
  - ☆ It is a point where implantation and growth of embryo (conception) takes place.
  - ☆ It is also the part where foetus develops from.
  - ☆ It also helps in pushing the baby during child birth.
- **Uterus wall**
  - ☆ It is where implantation takes place.
- **Oviduct/fallopian tube**:
  - ☆ This is the part where fertilization takes place:
- **Ovaries**
  - ☆ Ovaries produce female reproductive cell (ova/eggs)
  - ☆ Ovaries produce several hormones called Oestrogen and progesterone which control the development of secondary sex characteristics
- **Funnel of the oviduct:**
  - ☆ It helps to direct the ovum in to the oviduct.

Activity

1. How are the gametes different from the sperms?

   .....

   .....

2. Besides producing ova, give one other function of the ovaries in the female reproductive system.

   .....

   .....

3. Name the male reproductive cells in flowering plants.

   .....

   .....

4. State the female reproductive cells in human being.

   .....

   .....

5. Where does fertilization take place in the female reproductive system?

   .....

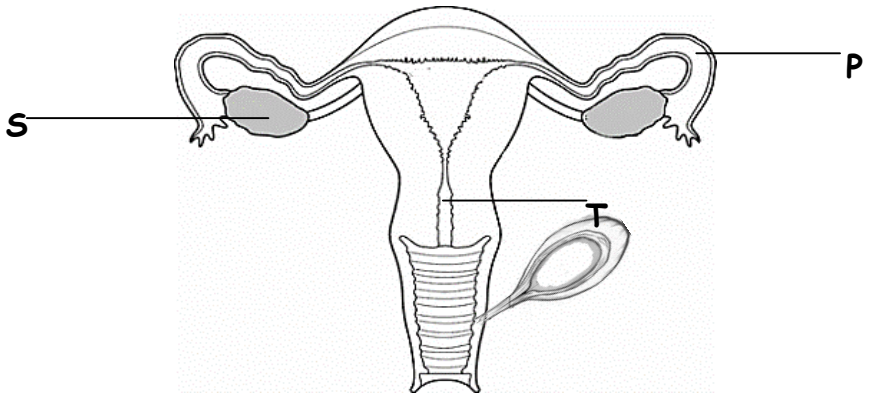
   .....

6. Name the part of a female reproductive organ where:
   a) the sperm cells are deposited .....
   b) conception takes place.....
   c) implantation takes place.....
   d) fertilization takes place.....
   e) Production of female hormones

   (b) Give any **one** use of the placenta to the fetus during pregnancy

   .....

The diagram below shows the female reproductive system, study it and answer the questions that follow.



a) Name the part marked **S**.

   .....

   .....

b) Where does implantation take place?

   .....

c) What type of pregnancy occurs in part P?

   .....

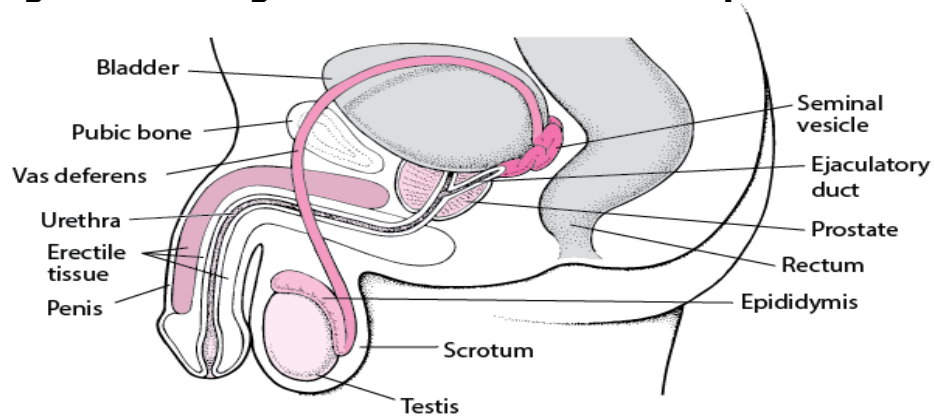
d) State **one** disorder that results in to type of pregnancy mentioned in (c) above.

   .....

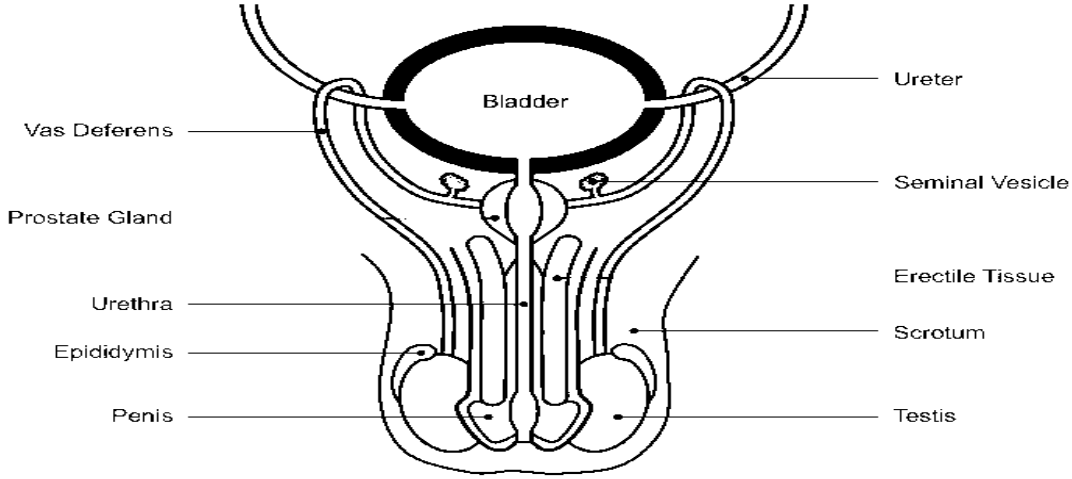
   .....

LESSON

Diagram showing cross section of a male reproductive organ



Latitudinal section of a male reproductive organ



Functions of the different parts;

Scrotum;

- It protects the testis from harm
- It regulates the temperature around the testes.

Scrotum becomes loose during hot days and shrinks during cold days in order to maintain ***constant temperature****.*

Testes (Testicles)

- Testes produce sperms
- Testes also produce a hormone called testosterones which determine the secondary sex characteristics and increase in the sex desires.

Epididymis

- It stores sperm cells.

Penis

- The penis is used to deposit sperms into the vagina.

N.B: Most sensitive part of the penis is the glans found at the tip of the penis.

Fore skin

- It covers the head of the penis (glans)
- It can be cut off or circumcised for hygiene, health, religious and cultural reasons.

Urethra:

- This is the passage for both urine and sperm cells.

Sperm duct;

- This is a tube which passes the sperms to the urethra.

Prostate gland [Cowper's gland]

- These produce the seminal fluid called semen which assists the sperm in movement.

Ovulation

This is a process by which the ovary releases a mature ovum into the oviduct.

N.B: Ovulation takes place every after 12 to 14 days from the day of menstruation. The time when ovulation stops is called menopause, probably at the age of about 45 years

Activity

1. Name the part of a male reproductive organ which
   a) regulates the temperature around the testes ……..
   b) produce sperms ……
   c) stores sperm cells……..
   d) covers the head of the penis……..
   e) acts as the passage for both urine and sperm cells……..
2. Name the most sensitive part of the penis.
   ……..
3. Which part of the reproductive organ can be cut off or circumcised for hygiene reasons.
   ……..
   ……..
4. Write down the function of testes in a human reproductive system
   ……..
   ……..
5. Name the part of a male reproductive organ which has similar role to that of the anthers of the flower.
   ……..
6. Name the male reproductive cell in flowers.
   ……..
7. State the reason why the Scrotum expand during warm days and contract during cold days.
   ……..
8. What is meant by the word **ovulation**?
   ……..
   ……..
9. How is the function of the testes similar to that of the anthers of the flower?
   ……..
1. In the space provided below, draw a sperm cell.

LESSON

MENSTRUATION/MENSTRUAL CYCLE

Menstruation is the monthly shedding of blood by the uterus wall when fertilization fails to take place.

This is the periodic release of blood from the uterus as a result of rapture of the uterus walls when fertilization has not taken place.

Ovulation takes place after every 12 – 14 days from the day of menstruation.

The time when ovulation stops is called **menopause**, probably at the age of about 45 years

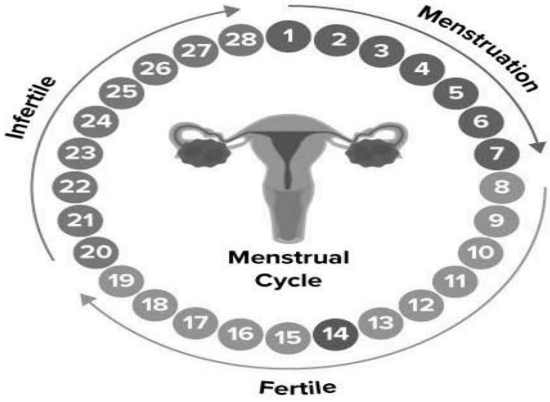
This happens because a hormone called oestrogen is released by the ovary which causes the uterus wall to thicken with layers of cells into which the ovum will sink if fertilized.

If the ovum is not fertilized the uterus wall breaks, the unwanted cells contain certain amount of blood are lost through the cervix and vagina.

Menstruation occurs once every four weeks or 28 days and usually lasts for 3 – 5 days in normal cases.

- ✓ The first menstruation period called **menarche** starts in girls between the age of 9-15 years. The last menstruation period end at around 45 years and is called **menopause**
- ✓ Normal menstruation takes 3-4 days.
- ✓ It takes place after every 28 days if all conditions are normal.
- ✓ It may be interrupted by conception, strong fever, or any abnormalities in the body.

The menstrual cycle



Care during menstruation

a) To prevent infection and avoid germs, diseases, one must be clean.

b) Use sanitary materials such as tampax, tampons, always, cotton wool.

c) Visit health workers incase abnormalities are noted.

Activity

1. What term is used to mean the monthly shedding of blood by the uterus wall when fertilization fails to take place?

   .....

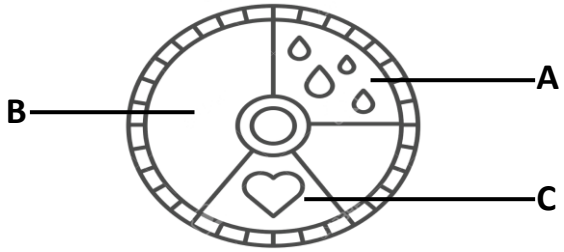
   .....

2. What causes menstruation in women?

   .....

   .....

3. **Use the diagram below to answer the questions that follow.**



4. Name the menstrual zone marked with letter **A** and **B**.
   a) A……
   b) B……
5. What is likely to happen to a woman when she has unprotected sex while in menstrual zone **C**?
   ……
   ……
6. Mention any **two** ways in which a P6 girl child can care for herself during menstrual zone **A**.
   ……
   ……
7. What name is given to the:
   a) First menstruation period?……
   b) Last menstruation period? ……
8. State any **two** sanitary materials used by a P6 girl during menstruation period.
   (i)……
   (ii)……

Fertilization;

This is the fusion or union of the nuclei of the male and female gametes to form a zygote from which an individual develops.

Types of fertilization

1. External fertilization
2. Internal fertilization

External fertilization;

This is the type of fertilization which involves fusion of gametes but outside the body of females

Examples of animals which have this type of fertilization include;

1. Frogs 2. Fish 3. Toads

Internal fertilization;

This is the type of fertilization which takes place inside the body of the female.

Examples of animals which undergo internal fertilization

1. Birds 2. Reptiles 3. Mammals

Pregnancy/gestation period;

This is the period from fertilization to birth.

In man, it lasts for 9 months.

N.B: Implantation takes place in the uterus while conception takes place in the uterus.

Signs of pregnancy (Dangers)

1. Monthly menstrual periods stop.
2. Breasts enlarge

3. Morning sickness especially in the 2nd and 3rd month of pregnancy.
4. Loss of appetite
5. Enlargement of the belly.
6. Cervix closes
7. Movement of the baby can be felt
8. Vomiting a lot and often.
9. Bleeding or coloured discharge from the vagina.
10. Prolonged anaemia
11. Severe swelling of the legs, face and hands.

Danger signs during pregnancy

1. Excessive and frequent vomiting
2. Bleeding or coloured vaginal discharge
3. Prolonged anaemia
4. Severe tiredness and weakness
5. Severe painful abdomen

Development of the foetus in the uterus;

Stages in pregnancy

- The fertilized ovum develops villi into the uterus.
- The part with the villi develops into a specialized organ called a placenta.
- The uterus wall under the influence of oestrogen and progesterone develop rich supply of blood vessels to facilitate exchange of materials between the mothers and fetus's blood.
- Developed oxygen, glucose, amino acids and salts from the mother's blood pass to the embryo while carbon-dioxide and other nitrogenous wastes pass in the opposite direction through the umbilical cord.
- A water sack called damage amnion which cushions it from damage surrounds the embryo.

Requirements needed by females during pregnancy;

- Ante-natal care
  Should visit antenatal clinic for medical checkup and advice
- Should avoid taking drugs like tobacco and alcohol.
- Good nutrition (balanced diet) for proper growth of the baby.
- Regular physical exercises
- Adequate sleep and rest. However, oversleeping is not good.
- She should observe proper personal hygiene.
- She needs appropriate clothing like maternity dresses, brassiers to have comfort

N.B: Ante – natal care is sub – divided into three stages. Namely;

1. Pre – natal care
2. Ante – natal care
3. Post – natal care

Problems of frequent pregnancy or birth

1. Premature births
2. Maternal anaemia
3. Miscarriage
4. Loss of birth weight
5. Proneness to diseases
6. High maternal mortality rate

Activity

1. Define the term fertilization
   ……
2. Mention any **two** types of fertilization in living organisms.
   (i)……
   (ii)……
3. Name the type of fertilization which involves fusion of gametes but outside the body of females.
   ……
4. Name any **two** examples of animals which have the above type of fertilization.
   (i)……
   (ii)……
5. What is internal fertilization?
   ……
6. Mention any **two** examples of organisms which undergo internal fertilization
   (i)…… (ii)……
7. Define the term implantation.
   ……
   ……
8. What is the gestation period of a human being?
   ……
9. Where do the following processes take place in human being?
   (a) Implantation: ……
   (b) Conception:……

LESSON

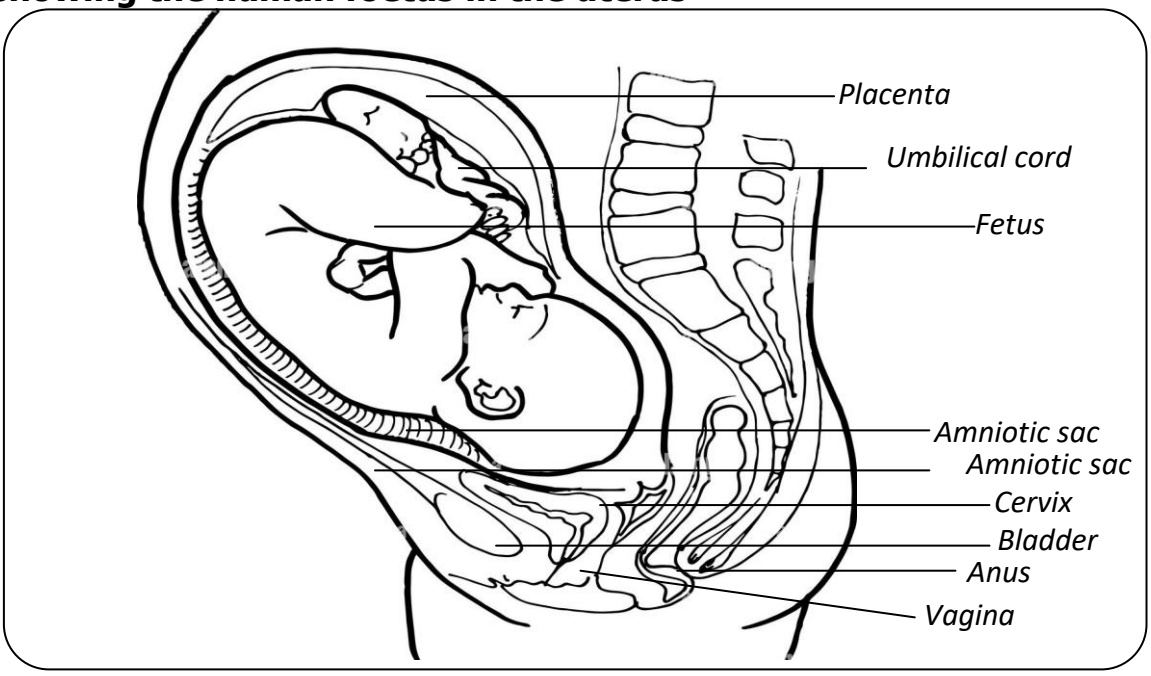
Implantation

This is the process where a fertilized ovum attaches itself onto the uterus wall. After implantation, we say conception has taken place and that confirms pregnancy

The stages of development are;

Fertilization - Zygote - Foetus - baby

Diagram showing the human foetus in the uterus



Functions of different parts;

- **Umbilical cord**:
  - Contains an artery and a vein through which materials are conducted to and from the fetus.
  - It transports food and oxygenated blood from the placenta to the embryo through the artery.
  - It transports waste products and deoxygenated blood from the embryo to the placenta through a vein.

- **Amnion**:
  It holds the amniotic fluid.
- **Amniotic fluid**
  It protects the foetus from damage or external harm.
- **Placenta**:
  - ☑ Stores digested food and oxygenated blood used by the foetus.
  - ☑ It prevents blood of the mother from mixing with blood of the embryo.
  - ☑ It attaches the foetus to the uterus
  - ☑ It stores wastes from the embryo until they diffuse into the mother's blood.
- **Cervix**
  It helps to separate the uterus from the vagina and closes the uterus during pregnancy.

Activity

1. State any **two** signs of pregnancy.
   (i).....
   (ii).....
2. Mention any **two** problems associated with frequent pregnancies.
   (i).....
   (ii).....
3. Mention any **two** conditions that may fail a woman to conceive.
   (i).....
   (ii).....
4. State any **two** requirements needed by females during pregnancy;
   (i).....
   (ii).....
5. Mention any **two** importance of Placenta during the pregnancy.
   (i).....
   (ii).....
6. Name the structure that protects the foetus from being damaged by the external harm.
   .....
   .....

LESSON

BIRTH AND LABOUR

After nine months of pregnancy, the mother will go into labour and produce a child. This is called giving birth or parturition (child birth).

Labour refers to the effort of child birth shown by contractions of the uterus.

What makes a baby after birth cry?

- ✓ It is due to sudden change in temperature (environment change).
- ✓ Crying helps to start the normal functioning of the lungs i.e. breathing starts at birth.

NB: incase a baby fails to cry/breathe artificial breathing should be done immediately.

Types of birth

a) Single child birth: this is when one child is normally born to mother.

b) Multiple births: this is when two or more babies are born at the same time.

Examples of multiple births

Twins, triplets, quadruplets

Twins

Twin is when two babies are born at the same time by the mother.

Types of twins

a) **Identical twins**

This is when one fertilized ovum divides normally and grows into two separate babies.
Identical twins are usually same sex.
All their physical aspects are the same.

b) **Siamese twins**

These are twins whose body remained joined /fused at one point.

c) **Fraternal twins**

This is when two ova are released and fertilized and then develops into twins
fraternal twins are not always the same sex.

Multiple births

If there are three or more ova released and fertilized it results into multiple birth.

Examples of multiple births

Triplets: Three children are born
Quadruplets: Four children are born.

LESSON

Teenage pregnancy

This is a type of pregnancy in a young woman who has not reached her 20th birthday when the pregnancy ends.
Teenage pregnancies mostly occur in unmarried women.
A teenager is a human being between the ages of 13- 19 years old.

Causes of teenage pregnancies

1. Lack of information about sexual and reproductive health and rights
2. Family, peer and community pressure
3. Sexual violence
4. Child marriage
5. Poverty
6. Interest of material goods
7. Exposure to phonographic materials
8. Forced/ early marriage
9. Lack of education

Problems associated with teenage pregnancy;

1. Dropping out of school.
2. Parental and family rejection.
3. Complications during pregnancy
4. The cervix is so weak to hold the foetus.
5. Difficulty in delivering.
6. The young mother may not take care of the baby properly.
7. Community discrimination
8. She may fail to get married in future they are considered to be second-hand.

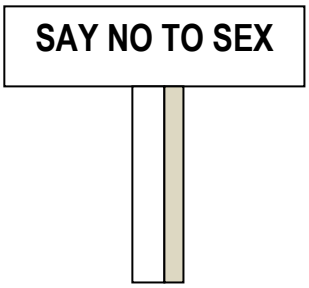
Solutions to teenage pregnancy

1. Through sex education
2. Saying no to early sex
3. Guidance and counseling girls and community
4. Use of family planning methods
5. Avoiding bad peers
6. Avoiding risky behaviors

Activity

1. What is a teenage pregnancy?
   .....
   .....
2. Mention any **two** causes of early pregnancies among teenage girls today.
   (i).....
   (ii).....
3. State any **two** problems associated with teenage pregnancies today.
   (i).....
   (ii).....
4. Mention any **two** effects of teenage pregnancies to a school ongoing child.
   (i).....
   (ii).....

Use the sign post below to answer the questions that follow.



(a) How is the above sign post important to the adolescents?
(i).....
(ii).....

(b) Apart from teenage pregnancy, mention any **two** other risks that a P6 child can protect against by obeying to the poster above.
(i).....
(ii).....

LESSON

Care for the reproductive organs

- ✓ Always maintain the cleanliness of the sexual organs
- ✓ Avoid wearing dirty and wet clothing around the sexual organs
- ✓ Abstain from sex to avoid contraction of the STDs
- ✓ Avoid sharing sharp skin piercing objects that may transmit STDs
- ✓ Married people should be faithful to prevent the transmission of STDs
- ✓ Couples should go for HIV test before having sex in order not to get HIV/AIDS
- ✓ Practice ABC measures.

Note: **A** - Abstain from sex
B- Be faithful to your partner
C- Condom usage

Family planning and child spacing

Family planning is the use of birth control methods to plan when to have a child or not in a family.

Child spacing is the provision of adequate space between the births of a family's children

Importance of child spacing

- ✓ It promotes healthy growth of the children
- ✓ It promotes relaxation of the mother's body

Activity

1. State any **two** activities we can do to care for the reproductive organs.
   (i).....
   (ii).....
2. Mention **two** reasons why school children are advised to abstain from sex.
   (i).....
   (ii).....
3. Why should couples go for HIV test together before having sex?
   .....
   .....
4. Write in full: ABC as a measure in controlling Sexually Transmitted Diseases.
   .....
   .....
5. Define family planning
   .....
   .....
6. How is family planning different from child spacing?
   .....
   .....
7. Mention any **two** importance of child spacing in a home.
   (i).....
   (ii).....

LESSON

Birth Control Contraception

This is a method of avoiding getting many children you cannot care for properly i.e. having the number of children you want and when you want them.

Family planning

This is the use of birth control methods to get the number of children you want and when to have them in family.

Functions of Family Planning Association

a) It educates people about child spacing
b) Educates people about quality of life when children are few
c) Provides people with family planning contraceptives.

Methods of family planning

Family planning methods are practices that help to prevent conception among women.

Categories of family planning methods

1. Artificial methods

These are methods that involve the use of man-made devices to control or prevent conception.

Examples

a) Use of condoms
b) Use of contraceptive pills
c) Birth control injections e.g. injectaplan,
d) Intra uterine devices e.g. coils, spirals, diaphragm.
e) Use of jellies and foams

Note: All the above are said to be temporary birth control methods.

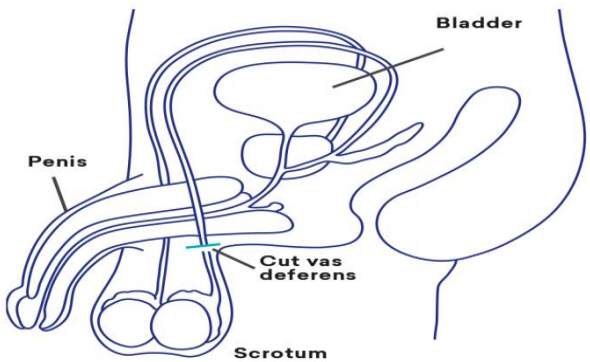
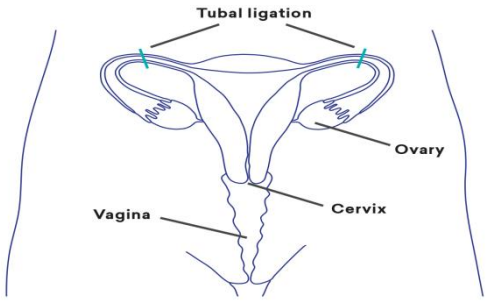
Permanent methods

1. Tubal ligation

This is a surgical method which involves cutting of the oviducts and tying them through a surgical operation

2. Vasectomy:

This is a method which involves cutting of the sperm ducts and tying them through a **surgical operation.**

Vasectomy	Tubal ligation
	

Advantages of using artificial methods of family planning:

- ✓ They are effective and well conducted
- ✓ They are convenient and time saving

- ✓ They are helpful in the control of some STDs such as use of a condom
- ✓ HIV infected mothers can easily live longer without child bearing.

Disadvantages of using artificial methods of family planning

- ✓ Some, if not practiced well may destroy the ovaries and cause barrenness
- ✓ Some result into complete sterility in one`s life time
- ✓ They are expensive to many families.

LESSON

Natural methods of family planning

- ✓ Abstaining from sex (Good for school going children)
- ✓ Withdrawal/coitus interruption menthol gametes with the female gametes
- ✓ Use of a calendar and rhythms. This involves studying ones menstrual cycle and having sex only when ovulation is likely not to take place.
- ✓ Prolonged breast feeding. This helps to delay the ovulation but it varies in women.

Advantages methods of family planning

- ✓ They are easy, cheap and convenient.
- ✓ They do not have complications.

Disadvantages of natural methods of family planning

- ✓ They are not effective as the artificial methods.
- ✓ They require complete cooperation for both husband and wife.
- ✓ They require great amount of teaching and supervision.

Importance of family planning

- ✓ It enables the mother to regain her health in preparation for the next pregnancy.
- ✓ It enables parents to have a manageable number of children in a family.
- ✓ It enables children to have enough basic needs.
- ✓ It checks on the population of a country.
- ✓ It helps in the control of unwanted pregnancies.

Reasons why some parents produce many children

- ✓ Ignorance about family planning methods.
- ✓ High infant mortality rate.
- ✓ Desire for a particular sex of a child.
- ✓ Prestige or fame and security.
- ✓ Cultural benefits and the need to show that one is sexually strong.
- ✓ Myths and misconceptions about family planning
- ✓ People think family planning methods lead to barrenness.

Activity

1. Mention **two** examples of family planning methods that involve the use of man-made devices to control or prevent conception.
   (i).....
   (ii).....
2. Define the following terms:
   a) Tubal ligation
   .....
   .....
   b) Vasectomy:
   .....
   .....
3. State any **two** advantages of using artificial methods of family planning.

(i).....
(ii).....

4. Suggest **two** disadvantages of using artificial methods of family planning
(i).....
(ii).....

5. Name the best method of family planning suitable for school going children.
.....
.....

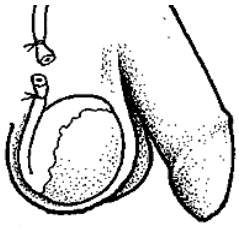
6. State any **two** reasons why the above method is good for the school children.
(i).....
(ii).....

7. Which family planning method helps to delay the ovulation in women?
.....
.....

8. State any **two** importance of having a small family.
(i).....
(ii).....

9. Suggest **two** reasons why some parents produce many children.
(i).....
(ii).....

Below is illustration of a family planning method. Use it to answer questions that follow.



(a) Name the family planning method shown below.
.....
.....

(b) State any **two** reasons why men are encouraged to use the method shown above.
.....
.....

(c) Mention **two** reasons why men fear family planning shown above.
.....
.....

LESSON

Problems of having many children

If a family has too many children, there will be;

1. Inadequate financial resources.
2. Lack of enough food for the children
3. Poor education for children
4. Lack of proper medical care
5. High infant mortality rare

6. Mothers' sickness as a result of having too many children e.g. miscarriage, maternal anemia, fatigue, low birth etc.

How to avoid infant mortality rate (death)

1. Immunization against infant killer diseases.
2. Participating in health care services e.g. health education
3. Practice family planning.

Myths and misconception about adolescence and reproduction health

- A myth is a traditional belief that is not true
- Misconceptions are false ideas or beliefs

Myths and misconceptions

- **Family planning contraceptive make women permanently barren**
  When a woman feels she should become pregnant, she just stops using the contraceptives and become pregnant again
- **Family planning increases teenage pregnancy**
  Instead teenagers are protected against unwanted pregnancies and STDs / STIs
- **Use of contraceptive causes high blood pressure and kills women during birth**
  Once the women use the right drugs as advised by the trained worker, Complications are reduced
- **Use of contraceptive leads to producing babies with abnormalities such as having one eye , ear being blind or lame**
  This is not true
- **Contraceptives make women to lose hair on the head and grow beards**
  There is no scientific proof about this

Truth

1. Family planning is against the teaching of the church
2. A woman on family planning contraceptives can get pregnant if poorly using it.
3. Use of condoms can protect you from both pregnancy and sexually transmitted diseases.
4. At least the church supports the natural family planning method.

Common diseases and disorders of the reproductive system

Sexual Transmitted Diseases

These are diseases transmitted (STDs) through having unprotected sex with an infected person.

Note: Such diseases accumulate in the victim's body as a result of the destruction of the white blood cells by the HIV virus.

Examples of STD's

1. HIV/AIDS
2. Gonorrhoea
3. Syphilis
4. Candidiasis
5. Chancroid
6. Genital herpes
7. Genital warts
8. Lymphogranuloma
9. Trichomoniasis

Activity

1. Define the term Sexual Transmitted Diseases.

   .....

……..

2. Mention any **one** immunisable Sexually Transmitted Disease.
   (i)……
   (ii)……
3. Write down any **two** other examples of STD's
   (i)……
   (ii)……
4. Write these short forms in full.
   HIV
   ……
   ……
   a) AIDS
   ……
   ……
   b) STDs
   ……
   ……

LESSON

HIV/AIDS

AIDS in full is Acquired Immune Deficiency Syndrome

Acquired means got from outside the body

Immune means protected against or safe from disease, the body is always protected by white blood cells.

Deficiency means lack or shortage or AIDS virus destroys white blood cells and the immune system becomes weak.

Syndromes mean a collection or group of diseases and signs which show the presence of a disease.

AIDS is a pattern of disease symptoms which attach and destroy white blood cells leaving the body unprotected against infections.

Causes of AIDS

AIDS is caused by a virus called HIV (Human Immunodeficiency Virus) commonly called AIDS virus.

HIV in full is Human Immune Deficiency Virus

This is the most infectious of all the STDs.

Ways through which HIV virus is spread

1. Through havind unprotected sex with an infected person
2. Through mother to child transmission
3. Through blood transfusion with infected blood
4. Through sharing sharp objects with an infected person.

Body fluids can be exchanged in the following ways;

1. Sexual contacts with an infected person.
2. Blood transfusion from an infected person.
3. Sharing or using sharp cutting instruments
4. From an infected pregnant mother to her newly born baby at birth.

5. From the mother to the baby through breast feeding.

AIDS virus cannot spread by;

1. Normal shaking of hands
2. Bites from mosquitoes and bed bugs
3. Caring for AIDS patients
4. Sharing cutlery and cooking utensils
5. Sharing food with infected persons
6. Hugging or embracing AIDS patients
7. Cleaning, washing beddings and clothing of people with HIV/AIDS

Practices that may lead to HIV infection

1. Circumcision
2. Skin tattooing
3. Sharing sharp objects
4. Blood transfusion
5. Having unprotected sex with infected person
6. Sharing wives in some communities especially in Eastern Uganda.

Signs and symptoms of HIV/AIDS

Signs

The major signs of AIDS are;

a) Herpes zoster locally called "Kisipi" which inflames the skin making it appear as scalded.
b) Chronic diarrhoea which may last for more than a week
c) Sudden loss of about 10% of the normal body weight.
d) Skin cancer which is also called Kaposis scarcomer, it causes itching and leads to scratching that leaves black spots.
e) Swollen lymph glands especially those of the neck and armpits
f) Oral thrush where by the tongue, gums, lips, and inside of the mouth plus the alimentary canal
g) Chronic cough which lasts long.

Symptoms

a) Tiredness without any proper cause
b) General body weakness
c) Persistent fever which is on and off
d) Loss of appetite

People who are at risk of getting HIV/AIDS

a) Sexually active people between the ages of 15-45years
b) Rape and defilement victims
c) Long distant truck drivers and traders who often have casual sex when away from their married partners for a long time.
d) Prostitutes who sell themselves for sex to many partners.
e) Bar attendants.

Effects of HIV/AIDS infection

There are many effects of HIV/AIDS on infected person, family and community

- ✓ AIDS lead to death of many people because it has no cure

- ✓ AIDS has led to loss of productive class of people in the community
- ✓ AIDS has caused a lot of worries, misery and hatred especially to the infected and affected ones.
- ✓ AIDS infection has caused some working groups to lose jobs and poor performance at work

Other effects of HIV/AIDS infection are:

a) They suffer personal pain from the disease.
b) The family spends a lot of money on treatment, care and feeding.
c) They are stigmatized or isolated in the society.
d) Loss of family income if the bread winner dies.
e) Many children are orphaned and become child parents.

Prevention and control of HIV/AIDS

There is currently no cure against AIDS, so people need to guard themselves against the disease by;

1. Having one Having one faithful sexual partner
2. Avoid sharing skin piercing instruments
3. Avoid practices which involve risks of getting AIDS like tattooing, ear piercing.
4. Blood to be used for transfusions should be tested for HIV.
5. Having an AIDS test with one partner before marriage
6. Abstain from sexual intercourse until marriage
7. Correct use of condoms during sexual intercourse
8. Sterilizing medical instruments.
9. Disposing syringes and needles after use.

How we can manage AIDS patients

1. People with AIDS need support in many ways.
2. Eating a balanced diet.
3. Join good social groups to relax and avoid heavy work.
4. Should give up bad habits like smoking and drinking alcohol

Diseases that can be mistaken for AIDS

1. Cancer
2. Tuberculosis
3. Typhoid
4. Malnutrition
5. Effect of Alcoholism
6. Measles

Note: Condoms do not give 100%safety but offer higher chances of safety against STDs

Activity

1. How is HIV different from AIDS?
   .....
   .....
2. What causes Acquired Immune Deficiency Syndrome?
   .....
   .....

3. State any **two** ways through which HIV virus is spread from one person to another.
   (i)……
   (ii)……
4. Mention any **two** practices that may lead to HIV infection
   (i)……
   (ii)……
5. Mention **two** categories of people who are at the highest risk of contracting HIV/ AIDS.
   (i)……
   (ii)……
6. State any **two** signs and symptoms of HIV/AIDS infection.
   (i)……
   (ii)……
7. Mention any **two** effects of HIV/AIDS infection to:
   a) An individual
   (i)……
   (ii)……
   b) The community
   (i)……
   (ii)……
8. Mention any **two** ways of preventing HIV/AIDS.
   (i)……
   (ii)……

Counseling HIV/AIDS patients

Counseling is a special form of communication through which a person is helped to control his/her feelings by a counsellor

Types of counselling

a) Pre-HIV antibody test counseling

b) Post-HIV antibody test counseling

Importance of counseling

a) It prevents AIDS victims from committing suicide
b) Avoids spread of the disease to others knowingly.
c) To encourage people to continue to live longer and useful

Organization in Uganda that offers counseling services

In Uganda, there are many governmental organizations which offer counseling. Some of them include:

- ✓ TASO: The AIDS Support Organization.
  It also provides food supplements food for patients.
- ✓ AIC: AIDS Information Centre
- ✓ ACP: AIDS Control Programme of ministry of health.
  It also provides HIV/AIDS testing.

ACTIVITY

1. What is counseling?
   ……
   ……

2. State any **two** types of HIV/ AIDs councelling.
   (i)……
   (ii)……
3. Mention any **two** importance of counseling to HIV/ AIDs patients.
   (i)……
   (ii)……
4. Write in full:
   a) TASO: ……
   b) AIC: ……
   c) ACP: ……
5. Apart from counseling, mention any **one** other service provided by:
   a) The AIDS Support Organization
   ……
   ……
   AIDS Control Programme of ministry of health
   ……
   ……
6. State any **one** vulnerable group of people catered for by the TASO.
   ……

LESSON

Gonorrhoea:

It is a venereal disease caused by a bacterium called gonococci or Neisseria Gonorrhoea

It is spread through unprotected sexual intercourse with an infected person.

Signs and symptoms in males

- ✓ Pain when urinating within 2- 5 days
- ✓ Smelly discharge of pus from the penis
- ✓ Painful swelling on the testicles
- ✓ Rash and sores on the genital areas

In females

- ✓ Vaginal discharge of smelly pus
- ✓ Pain in the lower abdomen
- ✓ Slight pain when urinating
- ✓ Sometimes very painful monthly periods.

  If not treated earlier, in pregnant women germs can easily affect the fetus's eyes hence blind babies.

Signs of gonorrhoea in babies

1. Red and swollen eyes
2. Pus comes out of the baby eyes
3. Blindness.

Effects of gonorrhoea

1. It leads to permanent damage of male and female reproductive organs.
2. Leads to sterility in both men and women.
3. Cause blindness in babies.
4. Blocks the urethra making urination difficult and painful

Prevention and control of Gonorrhoea

- ✓ Abstain from sex at early stages (Premature sex)
- ✓ Have regular medical check ups
- ✓ Married couples should avoid extra marital sex
- ✓ Get early treatment in case of discovered signs.
- ✓ Stop playing sex until you are completely treated.

ACTIVITY

1. Name the bacteria which cause gonnorhoea.

   ……..

   ……..

2. State any **one** way in which gonnorhoea is spread.

   ……..

   ……..

3. Apart from HIV/AIDS, mention one other STD caused by a virus.

   ……..

   ……..

4. Write down **two** signs of gonorrhoea in each of the following groups of people.
   a) Babies

   (i)……..

   (ii)……..

5. Women

   (i)……..

   (ii)……..

6. Men

   (i)……..

   (ii)……..

7. Name the sexually transmitted disease which causes blindness in babies.

   ……..

   ……..

8. Bwanika had the following signs and symptoms of illness:
   a) Pain when urinating
   b) Smelly discharge of pus from the penis
   c) Painful swelling on the testicles
   d) Rash and sores on the genital areas

   a) State any **one** sexually transmitted Infection whose signs and symptoms are seen from Bwanika.

   ……..

   ……..

   b) Mention any **two** effects of the above disease to Bwanika.

   (i)……..

   (ii)……..

   c) Give any **two** preventive advice you would give to Bwanika to overcome such illness.

   (i)……..

   (ii)……..

LESSON

Syphilis

Syphilis is a chronic and dangerous venereal disease caused by a germ called spirocharete treponema palladium

It is spread by having sexual contact with the infected person.

Syphilis develops in the body into three stages. Namely;

- ✓ Primary stage
- ✓ Secondary stage
- ✓ Tertiary stage

Primary stage

This stage occurs after 2 – 5 days after sexual intercourse.

Signs and symptoms

- ✓ Painless sores around the sexual organs
- ✓ In case they are not treated, they spread to the heart and brain.

Secondary stage

This shows up after 5 weeks and beyond.

Signs and symptoms

1. Painful rushers all over the body
2. Shores in the throat
3. Swollen joints and pain in the bones
4. The body becomes anemic
5. Mild fever

Tertiary stage

This happens between 5 – 20 years of the infection and difficult to heal.

Signs and symptoms

1. Big painful sores all over the body
2. Severe abdominal pain
3. Development of heart, brain and liver disorders
4. The victim may even become mad or insane
5. A lot of damage is done on the body system at this stage.

Note: If a pregnant woman has untreated syphilis, she can easily pass it to the unborn baby.

This type of syphilis is called **congenital syphilis**

Prevention of syphilis infection

Get early treatment with antibiotics

Go for regular medical check ups

Abstain, use condoms for untrusted partners or be faithful to our sexual partners. (ABC)

Activity

1. Name the sexually transmitted disease caused by gonococci.

   .....

   .....

2. State any **two** signs and symptoms of the above disease:
   a) In males
   (i).....
   (ii).....
   b) In females
   (i).....
   (ii).....
3. Mention any **two** ways of preventing and controlling of Gonorrhoea
   (i).....
   (ii).....
4. How is the cause of gonorrhoea similar to that of syphilis?
   .....
   .....
5. Name the germ which causes syphilis.
   .....
   .....
6. State any **two** signs and symptoms of syphilis in the:
   a) Primary stage
   (i).....
   (ii).....
   b) Secondary stage
   (i).....
   (ii).....
   c) Tertiary stage
   (i).....
   (ii).....
7. Suggest any **two** ways of preventing syphilis infection in our community.
   (i).....
   (ii).....

Lesson

Other urinary tract infection

a) **Pelvic inflammatory diseases (PIDs)**
   Infected people should see a doctor immediately

   It affects the abdominal and pelvic area.

b) **Epididymis**
   Serious infection of the Epididymis leading to swelling tenderness and pain in the testicles

c) **Genital herpes**
   These are sores (inflammation) of the genitals caused by virus called herpes simplex.

d) **Trichomoniasis Vaginalis**
   It is caused by protozoa called trichomonas
   The disease causes inflammation of the vagina

e) **Genital warts**

These are sores in the sexual parts and around the anus. They are caused by a virus.

f) **Hydrocell**
It is an increase in quantity of fluids in the sac around the testis and epididymis.

g) **Orchitis**
Inflammation of the testes due to injury or infection of tuberculosis

h) **Candidaisis**
It is also called thrush and is caused by a fungus

i) **Sterility**
In ability of a man to impregnate a woman or a woman failing to conceive

j) **Lymph glandcoma**
This refers to enlarge lymph nodes spread by sexual contact.

k) **Urethriris**
A disease that cause the urethra to become sore and swollen

DISORDERS OF THE REPRODUCTIVE SYSTEM

Impotence	is the inability of a man's penis to become stiff or erect
Low sperm count	Is the inability of the testes to produce enough sperms
Penile cancer	This is the growth of abnormal cells that form on the penis
Enlargement of the prostate glands	This disorder is common in elderly men over 50 years of age
Fibroids	These are swellings called cysts that develop on the wall of the uterus.
Ectopic pregnancy	This is a condition when a fertilized egg implants itself in the oviduct
Ovarian tumours	These are masses of abnormal cells that form on the ovary
Cervical cancer (cancer of the cervix)	This is the condition in which the cervix develops tumours. It is caused by the Human Papilloma Virus (HPV).

PIASCY MESSAGES

PIASCY messages about adolescence and reproductive health

PIASCY stands for:

P – Presidential

I – Initiative on

A – AIDS

S – Strategy for

C – Communication to the

Y – Youth

The following messages are passed to us through PIASCY activities

- Abstaining from sex until marriage
- Learn how HIV is transmitted
- Pre-marital sex is bad
- Boys and girls should see each other as friends but not sexual partners.
- Follow your religion to stay healthy.
- Stay in school until marriage.
- HIV damages the immune system
- People living with HIV and AIDS need care and support
- Testing for HIV
- Managing menstruation well
- You need to understand how your body changes at puberty
- Sexually transmitted infections make it easier for HIV infections
- Say No to sex for gifts
- Life skills help to protect you from HIV.
- Using violence to get sex is wrong
- You have the right to say No to forced marriages.
- Say No to bad touches
- Choose to delay sex
- Avoid risky places and risky behaviours

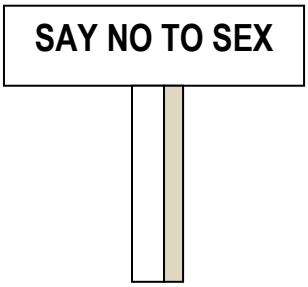
ACTIVITY

1. Write PIASCY in full.
   .....
   .....
2. State **two** reasons why school ongoing child is supposed to abstain from sex until marriage.
   (i).....
   (ii).....
3. Why should one test for HIV?
   .....
   .....
4. Mention **two** life skills that can help to protect a P.7 child against HIV/ AIDS.
   (i).....

(ii).....

5. Mention any **two** risky places that we should avoid in order to control HIV/ AIDS.
   (i).....
   (ii).....
6. Give any **two** ways a P6 child can care for parents living with HIV and AIDS safely.
   (i).....
   (ii).....
7. State any **two** challenges got from pre-marital sex.
   (i).....
   (ii).....
8. Mention **two** ways in which one can control oneself from pre-marital sex.
   (i).....
   (ii).....
9. State any **two** ways of caring for HIV/ AIDS patients.
   (i).....
   (ii).....
10. Mention any **two** effects of HIV/ AIDS to a p6 child.
    (i).....
    (ii).....

11. Below is a sign post put on the school compound of Ayer Primary School.



12. In which way is the message in the sign post below helpful to school children?
    .....
    .....
13. Mention any **two** possible problems caused by pre marital sex.
    (i).....
    (ii).....
14. State any **two** results of premarital sex to a P6 child.
    (i).....
    (ii).....
15. State any **two** PIASCY messages displayed at your school.
    (i).....
    (ii).....