

# P.6 SCIENCE LESSON NOTES TERM III

## SCIENCE AT HOME AND OUR COMMUNITY

### Review

#### Ways of separating mixtures by

- **Filtration**
- **Sorting**
- **Distillation relating to preparation of pure alcohol from crude alcohol**
- 

#### *Uses of water*

- *For cooking food*
- *For washing plates*
- *For generating electricity*
- *For drinking*
- *For cooling engines of machines*
- *For bathing*

#### *Uses of water in the body*

- *Softens food for easy digestion*
- *Water makes up body cells*
- *Water in synovial fluid reduce friction in joints*
- *Water quenches thirst*
- *Water cools the body through sweating*

#### *Food sources of water*

- *tea*
- *milk*
- *fruit juices*
- *soup*

#### *Types of water*

- *Hard water- This water that does not easily form lather with soap.*
- *Soft water – It is water that easily forms lather with soap.*

#### *Hard water*

- *This is the type of water that does not form lather with soap easily. It takes a lot of soap when used but can be made soft by adding there potassium per manganate.*

### ***Sources of hard water***

- *Oceans*
- *Seas*
- *Lakes*

### ***Uses of hard water***

- *Used in the making of beers*
- *Helps in the formation of strong bones and teeth, because it contains mineral salts.*

### ***What makes water hard?***

- *Water is hard due to its mineral content in it.*

### ***How to make hard water soft***

- *By boiling*
- *By distillation*

***N.B:*** *Distilled water is not good for drinking because it does not contain mineral salts.*

### ***Soft water***

- *This is water that can easily make lather with soap e.g rain water and distilled water.*

### ***Uses of soft water***

- *Soft water is good for washing clothes*

### ***Sources of soft water***

- *Rain*

- 1. Identify the main source of water*
- 2. Suggest the importance of sweating to the body*
- 3. What type of water is the best for washing?*
- 4. Give a reason for your answer in 3 above*
- 5. Why is hard water not good for washing?*
- 6. Give two uses of water in the human body*
- 7. Suggest two ways of making hard water soft*
- 8. Identify any two ways of maintaining community wells*

## **Content : Preparation of safe drinking water**

Water can be made safe for drinking in the following ways:-

## **Content : Preparation of safe drinking water**

Water can be made safe for drinking in the following ways:-

- Boiling
- Chemical treatment

### ***Methods of making water clean***

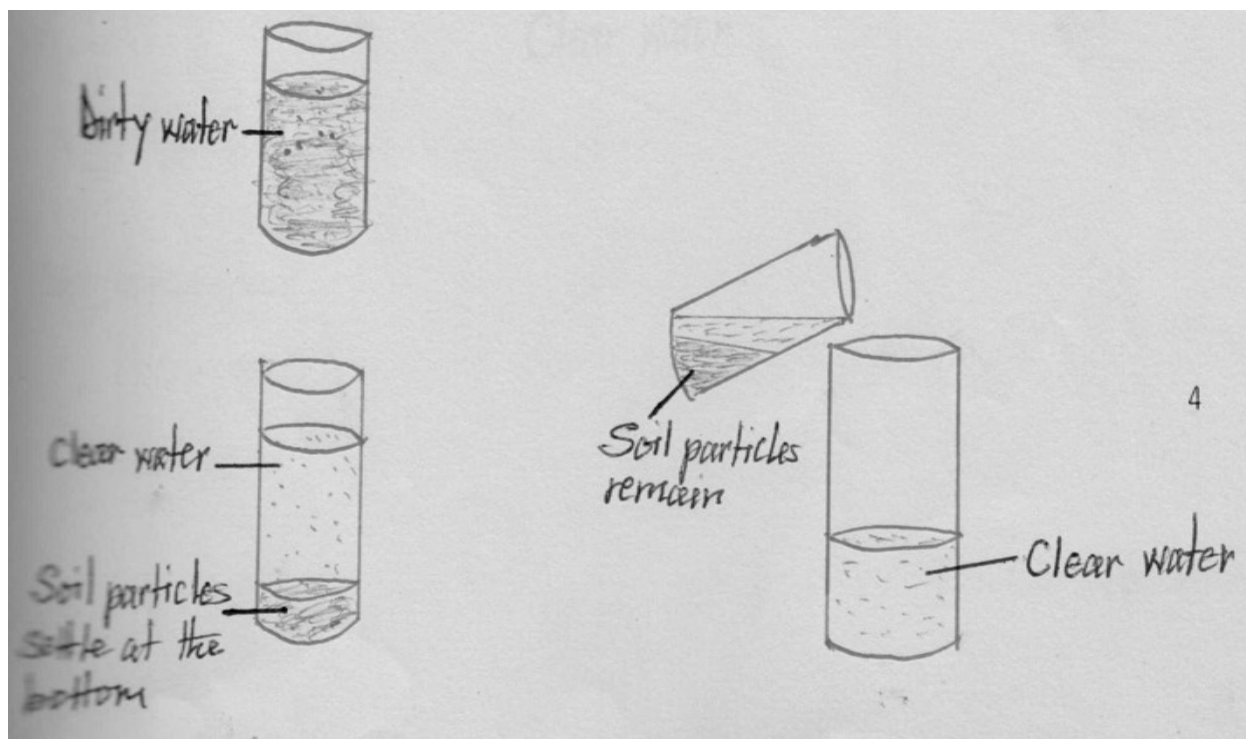
- *Filtering*
- *Decanting*

### **Boiling**

Water boils when it's at a temperature of  $100^{\circ}\text{C}$  /  $212^{\circ}\text{F}$ . Boiling kills most of the disease causing organisms, and therefore it's the most effective when stored in clean covered containers.

### **Decanting**

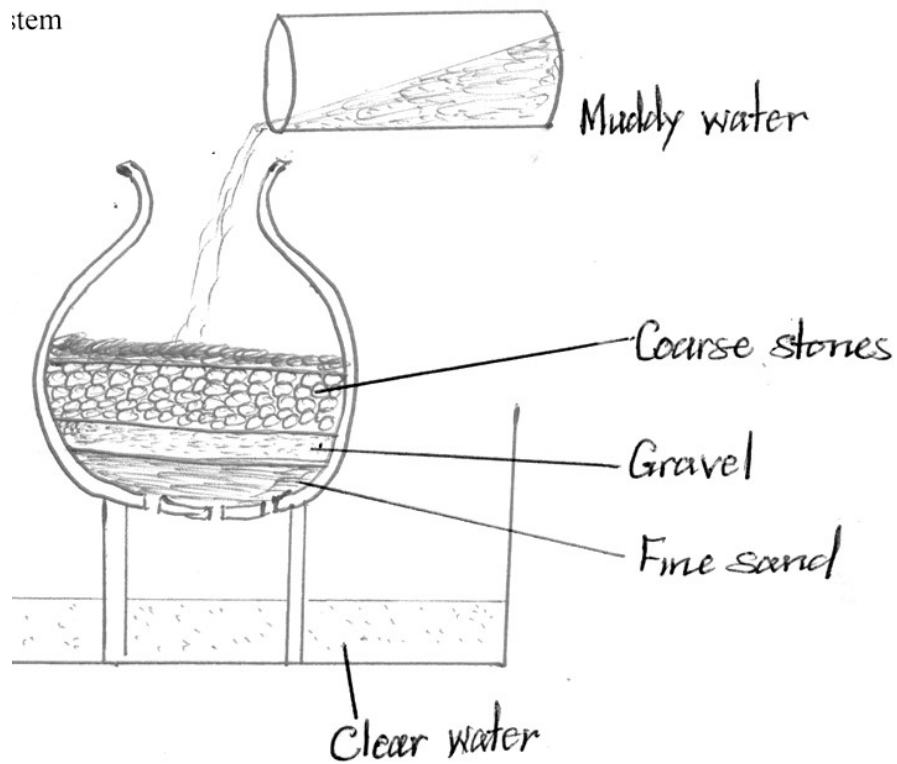
This is a process of **leaving** dirty water to settle, so that solid particles can collect at the bottom of the container. Clean water on top is slowly poured into another container, leaving the solid particles at the first container.



Clear water collected by filtration that can be used for washing is also prepared by use of:-

One pot filter system by putting all coarse stones, gravel and fine sand in the same pot.

## One pot filter system



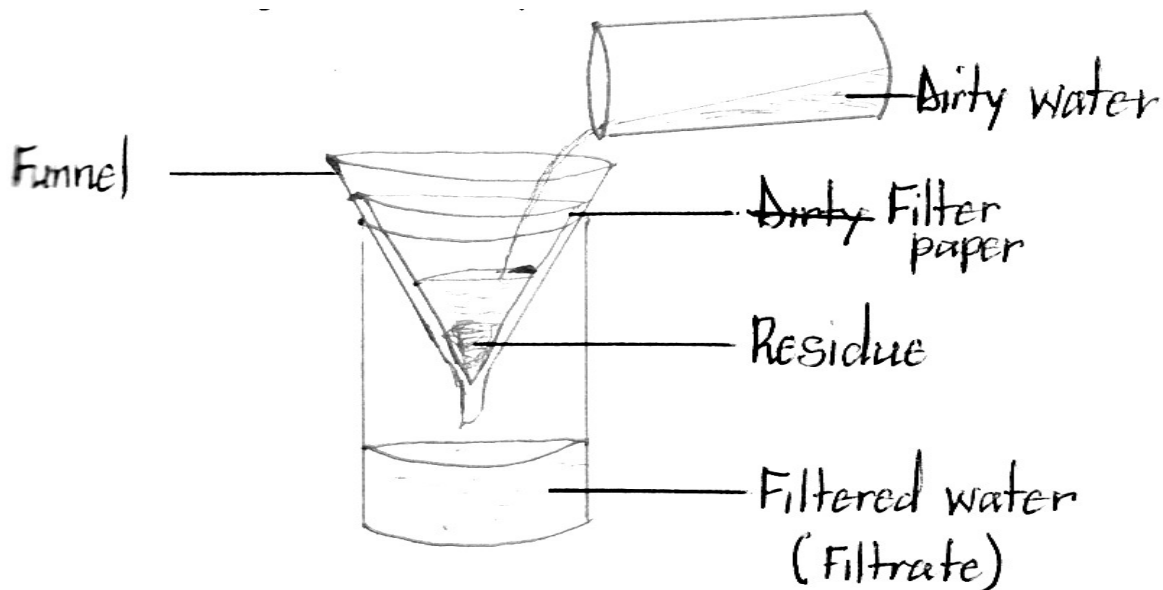
## Three pot filter system

### Filtration

Filtration is the process by which solid particles such as dirt small animals and plants are removed from water.

Filtration can be done using a sterilized pieces of cloth or water *filters*.

Water filters can be bought or made locally.



### **Treatment of water using chemicals.**

- Water *from* a river to remove weeds
- Water enters big tanks where large particles are allowed to settle at the bottom. This is called **sedimentation**. Chlorine is added into water to kill germs i.e. **chlorination**. Before chlorination, water is filtered.
- Water now passes to a big reservoir tank for storage and later pumped to homes, factories e.t.c. for use.

### **Water impurities.**

Impurities are substances in water that make it unclear or not clean.

### **Example of water impurities**

- Human wastes.
- Animal wastes e.g dung, chicken droppings.
- Pollutants from farm animals.
- Silt from erosion.
- Discharge from industries ( Industrial wastes).

### **Stages of Cleaning clothes in a home.**

During cleaning of clothes at home, the following steps are taken:-

- i) Sorting clothes.
- ii) Soaking clothes in water.
- iii) Washing clothes.
- iv) Rinsing clothes in clean water to remove soap.
- v) Wringing clothes to remove excess water.
- Vi) Drying clothes under the sun.
- vii) Ironing clothes.

### **Testing exercise**

1. Mention two ways of obtaining clean and clear water for washing clothes.
2. Apart from boiling, list down one method of preparing clean water for drinking.
3. How is boiling of water an important practice in a home?
4. Why does water got from decanting need to be boiled before drinking it?

5. Name any four water impurities.
6. Give some methods used to remove impurities from water.
7. List down steps followed when cleaning clothes / fabrics in a home.
  - Why do we need to sort clothes before washing?
8. What can you do to kill germs in washed clothes?
9. Identify one method that can be used to obtain clean water from dirty water
10. Suggest two conditions under which filtration is used at home
11. Why is filtered water not safe for drinking?
12. In four sentences, explain how you can obtain safe drinking water from dirty water
13. State any two ways how boiled drinking water can get contaminated
14. Suggest two importance of washing clothes
15. What can you do to decanted water to make it safe for drinking
16. Why are we not advised to drink distilled water?

## **Topic 2: ACCIDENTS AND FIRST AID**

### **ACCIDENTS AND FIRST AID.**

An accident is an unexpected sudden happening that can cause harm or injury to the body.

#### **First aid**

Is the first treatment or assistance given to a casualty before he is taken to the hospital.

**Casualty.** Is a person who has just got an accident *and need help*.

**A first aider.** Is a person who gives first aid.

#### **Responsibilities of a first aider.**

- Make a reports about the casualty.
- Take the casualty to the hospital.
- Study and know the cause of the accident.
- Work calmly and efficiently with the conditions as required.

### **Things a first aider should observe when giving first aid to a casualty of motor accident.**

Air passages (breathing).	A
Broken bones	B
Circulation	C

### **Examples of accidents**

- *Falls*
- *Poisoning*
- *Fainting*
- *Near drowning*
- *Electric shock*
- *Animal bites*
- *Choking*
- *Scalds*
- *Burns*
- *Nose bleeding*

### **Causes of road accidents**

- Over loading *vehicles*.
- Over speeding *vehicles*.
- Bad roads.
- Drunken drivers.
- Driving vehicles in poor mechanical conditions.

### **Causes of accidents at home**

- Climbing trees.
- Playing with fire.
- Playing with sharp objects.
- Excitement.
- Fear.
- Poor storage of medicine in the home.
- Carelessness.

### **Examples of injuries**

- *Fractures*
- *Wounds*
- *Dislocation*
- *Sprains and strains*
- *Burns*
- *Scalds*

### **Reasons why first aid is important .**

- *To reduce or stop bleeding* if any
- To promote quick recovery.
- *To give a casualty hopes.*
- To prevent the condition from becoming worse.
- To reduce or stop bleeding.

### **Dangers of accidents**

- Causes lameness.
- Causes death.
- Causes injuries to the body.
- Causes pain

### **A BURN**

This is an injury to the body caused by dry **heat**.

#### **Causes of burns.**

##### ***Body contact with:-***

- i) Fire flames
- ii) Hot metals
- iii) Hot charcoal
- iv) Acids
- v) Friction
- vi) Naked electric wires

### **A SCALD**

This is an injury to the body caused by wet heat.

#### **Causes of scalds.**

##### ***Body contact with:-***

- i) Steam
- ii) Hot tea
- iii) Hot milk
- iv) Hot porridge



- v) Hot soup
- vi) Hot water

### **Signs and symptoms of burns and scalds.**

- Severe pain at the place of burn.
- Reddening of the injured parts.
- Developing of blisters.
- Skin may appear grey, pale or waxy.

NOTE: Shock may be a great danger and increases rapidly with loss of the body fluids.

### **Types of burns.**

- Dry burns
- Chemical burns
- Dry friction burns
- Electric burns
- Radiation burns

- (a) **Dry burns** are burns caused by fire flames, cigarettes / charcoal.
- (a) **Dry friction burns** are burns caused by either the skin rubbing against objects or fast moving objects against the skin e.g rope.
- (b) **Chemical burns** are burns caused by acids / alkalis used in industries.
- (c) **Electric burns** are burns caused by electric currents or lightning.
- (d) **Radiation burns** are burns caused by sun rays or reflecting from bright surfaces e.g X-ray.

### **Degrees of burns / categories of burns**

- First degree burn.
- Second degree burn.
- Third degree burn

#### **1. First degree burns.**

This is the burn that does not form any blisters at the site of injury.

NOTE: (i) The sign of a first degree burn is a tender skin for many days after the accidents.

(ii) The first aid for a first degree burn is to put the injured part under clean cold water for about 10 – 15 minutes.

### **Why put a burnt part under cold water.**

- To reduce pain.
- To control the skin from swelling.
- To prevent further injuries.

### **2. Second degree burns.**

This is a burn where blisters are formed at the sight of the injury.

#### **NOTE:**

(i) Never break the blisters because it may cause more pain and also exposes the wound to germs.

### **3. Third degree burns.**

This is a burn where the skin is burnt very deeply.

#### **Signs of a third degree burn**

- Charred skin.
- Blackened skin.
- Sunny white skin.

**NOTE:** A person with a second and third degree burn should be given a lot of fluids to control dehydration as he / she loses a lot of water from a big area of the body.

#### **First aid given to a person with third degree burn.**

- Put the burnt part under clean cold water for 10 – 15 minutes.
- Cover the wound with a dry clean cotton wool to prevent it from flies and dust.
- Apply a clean cold cloth sponging at the injured part of the body.

#### **Common signs of burns.**

- Swelling at the burnt part.
- Charred skin.
- Reddish skin.
- Blisters at the burnt part.

### **Don't of burns and scalds**

- Don't put cooking oil because it blocks the skin pores
- Don't apply sugar because it attracts germs
- Don't apply soil and dung because they contain germs
- Don't break blisters because it exposes the injury to germs

#### **Prevention of burns and scalds.**

- Don't keep petrol in domestic houses.

- Children should not sit near fire.
- Cook on raised stoves / fire places.

### **Activities**

1. What is a burn?
2. Identify two causes of burns
3. Differentiate between a burn and a scald
4. What causes a scald?
5. How is a burn similar to a scald/
6. Suggest any two ways of controlling burns and scalds in a kitchen
7. Identify any two common causes of burns and scalds at home
8. Give two reasons for putting burns and scalds in cold water

### **Evaluation**

- Strength
- Weakness
- Strategy

### **FEVER AND CONVULSIONS.**

**Fever** is a condition of the body when the temperatures *goes* beyond the normal  $37^{\circ}\text{C}$  or  $98.4^{\circ}\text{F}$ .

**Convulsions** is a condition by which the body shakes or jerks in voluntarily or on its own.

#### **Effects of fever to the body.**

- Fever causes convulsions.
- Fever can cause brain damage.

#### **First aid for fever.**

- Remove most of the clothes to provide fresh air.
- Sponge the person's body with a wet cloth.
- Give the patient more fluids to prevent dehydration.

#### **Signs and symptoms of convulsions.**

- Stiff muscles.
- Rise in body temperature.
- Holding of breath.
- Eyes turn up wards.

### **Don'ts**

- Don't give fluids since they may cause choking

### **First aid given to fever and convulsion patients.**

- Control the by standers.
- Provide enough fresh air.
- Remove or loosen all the tight clothes.
- Put an object in the mouth to stop the victim from biting the tongue.
- Put the person in recovery *position* if convulsions stops.

### **DROWNING**

This is dying from having the lungs filled with water and un able to breathe.

#### **Near drowning**

This is a condition when lungs are filled with water and the person has stopped breathing but not yet dead.

#### **Places where drowning take place.**

- |                   |                  |         |
|-------------------|------------------|---------|
| - Lakes           | - Rivers         | - Wells |
| - Basins of water | - Swimming pools |         |
| - Streams         | - Bath tub       |         |

#### **First aid for near drowning.**

- Yell for help from people around.
- Remove the person from water if it is safe for you (person smaller than you).
- Put the person in recovery position if he / she is still breathing.

#### **Steps taken if the person drowning is bigger than you.**

- Throw something into the water which can float like empty jerrycan, dry piece of wood or rope and pull him

NOTE: The person can hold on the rope or piece of wood until someone bigger comes to help.

#### **Ways in which drowning can be prevented.**

- Children should not get water from wells without help from elders.
- Travelers should not use leaking boats.
- Fishermen and travelers on water should have life jackets.

- People should be conscious of water logged places.
- Leaves basins / tins empty.

### Activities

1. Give the meaning of the following terms
  - a) fever
  - b) convulsion
2. What is near drowning?
3. State steps taken when giving first aid to a person who has near drowned.
4. **How is drowning different from near drowning?**
5. **Give any two ways of controlling near drowning at home**
6. **What should a P6 pupil do in case his friend falls in a pond?**
7. **Suggest any one way of giving first aid to somebody with high fever**

### Evaluation

- Strength
- Weakness
- Strategy

### **Fainting.**

This is a condition when somebody becomes unconscious for a short time.

**NOTE:**(i) Fainting is caused by lack of enough blood and oxygen supply to the brain.

(ii) Fainting is sometimes called nervous shock.

### **Conditions which may lead to fainting.**

- Prolonged hunger / starvation.
- Standing for a long time.
- Prolonged pain.
- Long exposure to heat.
- Extreme sorrow or anger.
- Fear.
- Excitement.
- Over working.

### **First aid for fainting.**

- If the person is dizzy, help him to sit.
- Let the patient sit with head bent forward in the knees.
- Let the casualty take a deep breath.
- If the patient faints still, lay him with legs raised to allow blood flow to the head.
- Provide fresh air to the victim.
- Free any tight clothing's.
- Put the person in recovery position if not breathing properly.
- Re assures the casualty if he / she gains consciousness.

**NOTE:** Never give the causality anything to drink until complete consciousness because such things can easily choke the causality.

### **Activities**

1. What is fainting?
2. Point out the main cause of fainting.
3. Name the conditions which may lead to fainting.
4. Give four steps taken to give first aid for fainting.
5. How can you ensure that a fainting casualty gets enough air/
6. Why are legs of a fainting person raised above the head?

### **Evaluation**

- Strength
- Strategy
- Weakness

### **FOREIGN BODIES IN THE BODY.**

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

#### **Natural openings found on the body**

- |          |        |          |
|----------|--------|----------|
| - Nose   | - Eyes | - Throat |
| - Vagina | - Ears |          |

#### **Foreign bodies that can enter the body.**

- |                  |        |                       |
|------------------|--------|-----------------------|
| - Small stones   | - Soil | - Seeds e.g. maize    |
| - Coffee berries |        | Groundnuts, peas etc. |

-Dust

### **Foreign bodies in the eyes.**

- Dust
- Insects
- Eye lashes

### **First aid for foreign body in the eye.**

- Wash the eye with plenty of clean water.
- Wipe the body gently with a corner of a soft piece of cloth.

### **Foreign bodies that occur in the ear.**

- Small stones.
- Seeds like coffee, beans, peas and g/nuts.

### **First aid for insects in the ear.**

Pour water in the ear for the insect to float out.

NOTE: If a stone or seed enters into the ear or nose, take the person to the hospital.

If an insect enters the nose, just blow the nose for the insect to come out.

### **CHOKING**

This is when something blocks the air passages to the lungs in the throat.

### **First aid given to a choking person.**

- Give *a gentle smack* on the person's back.
- Press into the belly with a sudden upward jark*with your fist*.

### **How to prevent accidents caused by foreign bodies.**

- Keep away objects like buttons form children.
- Teach children not to put objects in the openings.

-

### **How to avoid choking**

- Food must be chewed properly.
- Avoid talking and laughing while eating.

### **POISON**

Is any substance that can damage health or cause death if taken.

### **Examples of poison**

- Jik or other disinfectants
- Petrol / diesel
- Common drugs e.g aspirin.
- Paraffin
- Rat poison
- Insect poison

***Poisoning:- Poisoning is the act of taking harmful substances into our bodies.***

**Conditions that lead to Causes of poisoning.**

- ***Careless keeping of drugs.***
- ***Taking in large amounts of drugs or over dose.***
- ***Children mistaking drugs for soft drinks.***
- ***Children eating whatever they get.***
- ***Eating poisonous berries or fungi.***

**Prevention of poisoning.**

- ***Keep drugs away from children's reach.***
- ***Taking drugs as advised by the health worker ( following prescriptions).***
- ***Avoid putting drugs in soda bottles.***

**Signs of poisoning**

- |                   |                       |                   |
|-------------------|-----------------------|-------------------|
| - Vomiting        | - Mental confusion    | - Rapid breathing |
| - Thirsty         | - Internal / external |                   |
| - Loss of balance | breeding              |                   |

**First aid for poisoning**

- Go to a healthy worker quickly.
- For petrol, bleach or paraffin, give the patient a lot of fluids like juice, milk or water to dilute the poison in the stomach.

**NOTE:** It is not good to make a victim who has taken poison to vomit because it damages the gullet and stomach.

**Activities**

1. State the meaning of “foreign body”.
2. Name any four natural body openings.
3. What is poison?
4. State the first aid for poisoning.
5. How can you help a P2 pupil who has pushed a bean seed in his nose?
6. Suggest any one way of preventing choking
7. Why should drugs at home be kept out of children's reach?
8. Give one reason why jik and paraffin are regarded as poison in our homes
9. State one way of giving first aid incase one is choked by food



## **INJURIES TO LIGAMENTS , MUSCLES AND JOINTS**

1. **A sprain** is an overstretched or torn ligament.

### **Signs of a sprain.**

- Pain when moving the joint.
- Inability to use the strained joint.
- Swelling of the joint.
- Change of colour of the injured part.

2. **Strain** is an over stretched or torn muscle.

### **Signs of strains.**

- Sudden sharp pain at the site of the injury.
- Swelling of the injured part.

### **First aid for sprains and strains.**

- Support the joint in the most comfortable position.
- Apply a bandage over a good layer of cotton.
- Apply a cool clean compress.

3. **Cramps** is a sudden pain in the limb caused by contraction of a muscle.

4. **Dislocations** is when a bone goes off its normal position.

## **FRACTURES**

This is a broken or cracked bone in the body.

**NOTE:** A fracture occurs when there is sudden abnormal stress and too much pressure on the bone.

### **Causes of fractures.**

- Motor accidents
- Falling from trees / buildings
- Fights

### **Signs of a fracture.**

- Severe pain at the site of the fracture.
- Unable to use the fractured part.
- Swelling of the injured part.
- Deformity of the injured part.
- Tenderness on gentle pressure.

### **Types of fractures.**

- Closed / simple fractures.
- Open or compound fracture.
- Complicated fracture.
- Communicated fracture.
- Green stick fracture.

#### **(a) Closed or simple fracture**

This is a fracture where a bone breaks and remains inside the flesh.

i.e



#### **(b) Open or compound fracture.**

This is a type of fracture where the bone breaks and cuts through the skin.



#### **(c) Complicated fracture**

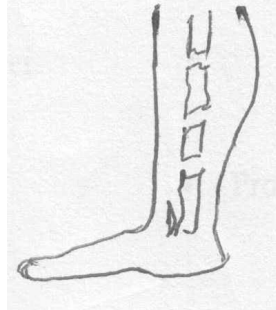
Is a type of fracture when a bone breaks and damages other body organs like the lungs, intestines or heart. It occurs when a rib is broken.

i.e

**(d) Comminuted fracture.**

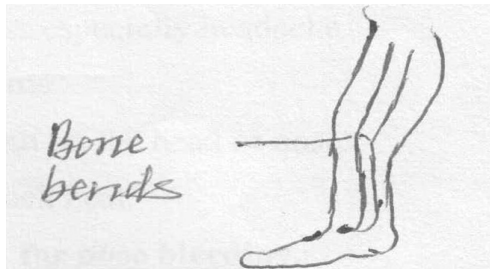
This is a type of fracture where a broken bone breaks into many small parts. It is also called a multiple fracture.

i.e



**(e) Green stick fracture** is a type of fracture where by a bone is partially broken. The bone just gets a crack and it happens in babies

i.e



The first aid for a fracture is tie with splints to hold the broken bone in the right position.

**Activities**

1. What is a sprain?
2. Give any two signs of sprains
3. How is a sprain different from a strain?
4. What is a fracture?
5. Which first aid is given for a fracture?

**Evaluation**

- Strength
- Strategy
- Weakness

## **NOSE BLEEDING.**

This is the flow of blood from the nose.

### **Causes of nose bleeding.**

- Sickness especially headache.
- Accidents.
- Being hit on the head or nose.
- Too much heat.

### **First aid for nose bleeding.**

- Sit quickly to allow the heart beat more slowly.
- Bend forward, pinch the nose and breathe through the mouth for 5 – 10 minutes.

**NOTE:** (i) Pinching the nose helps blood to clot in the nose.

(ii) Bending forward helps the patient not to become dizzy.

### **Testing activity**

1. Define each of the following terms
  - a. Accident
  - b. First aid
  - c. Casualty
2. Why should a casualty be taken to hospital after getting first aid?
3. Suggest two ways of controlling accidents at home.
4. Musa accidentally poured hot tea on his hand
  - a. What injury did he get / sustain?

b. State the first aid you would give to Musa.

5. Why is it dangerous to make a person who has taken paraffin vomit?
6. Give one reason why we don't give first aid to a drowned person.
7. Identify any two effects of accidents to people.
8. What is most likely to occur to one who puts dung on burns?
9. Suggest the use of splints in the giving of first aid.
10. How is a first aid box important to a school?
11. Suggest two ways of preventing burns and scalds in kitchens.

## **Topic 3: SANITATION**

### **LATRINES**

A latrine is a facility for the proper disposal of human wastes or excreta.

### **Importance of latrines in a home**

- To keep human wastes where they can't be brought to our food and water by flies, insects, animals and people.

### **Types of latrines**

- Pit latrines
- Toilets / flush toilets

- Potties
- Ecosan latrines.

### **Pit latrines**

These are latrines with deep holes in the ground to keep human faeces for years.

### **Classes of pit latrines**

- Ordinary / *conventional* pit latrines.
  - Ventilated improved pit latrines.
- An ordinary pit latrine is the most common latrine used in our homes.

### **Characteristics of an ordinary pit latrine**

- It has a deep hole to keep faeces for a long time.
- It has a strong floor for easy cleaning.

### **VIP LATRINES**

VIP in full is Ventilated Improved Pit latrine.

### **Characteristics of a VIP latrine.**

- Has a vent pipe to let out bad smell
- Has a screen at the top of a vent pipe to trap and kill flies.
- It does not have a lid on the hole to allow free circulation of air.
- It has a spiral wall without doors to allow easy circulation of fresh air.

### **NOTE:**

1. A VIP is called a ventilated pit latrine because it has a vent pipe.
2. A VIP is called an improved pit latrine because it does not smell badly and it kills flies.

- It has a lid for the hole to cover and to prevent flies out of the pit.
- It has a wall and door for privacy.
- It has a roof to prevent / protect the floor and people from bad weather.

An ordinary pit latrine should be smoked to kill flies and prevent smelling.

### **COMMENTS**

### **Activity**

1. What is a latrine?
2. Name any two types of latrines
3. Identify any three characteristics of an ordinary pit latrine.
4. Why should a home have a latrine?
5. Identify the type of latrine suitable for babies
6. In which way can you control a bad smell and houseflies in an ordinary pit latrine?

### Site for a VIP latrine

- Below / down a hill or water body to prevent faeces from contaminating water.
- 10 metres away from any living house to keep away bad smell and flies.
- 30 metres away from any water source to prevent water contamination.

### Materials used for building latrines

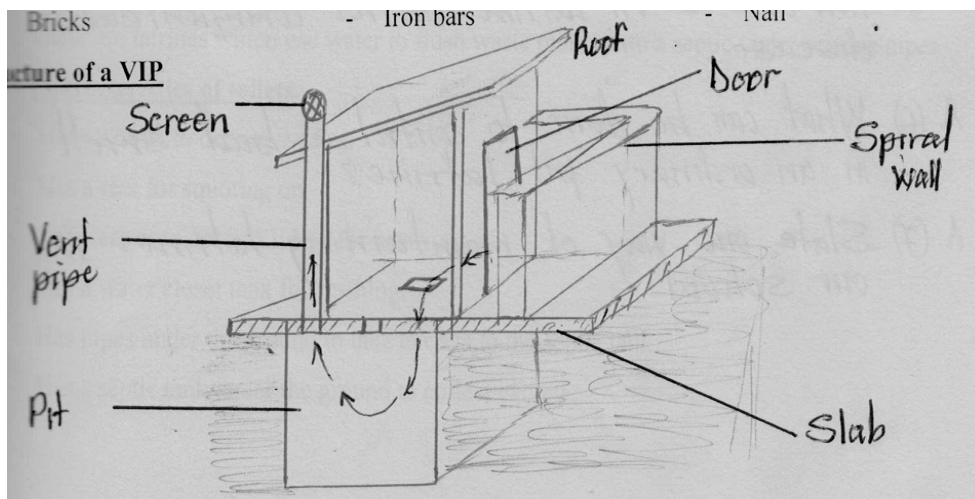
#### (e) Local materials

- |                 |         |
|-----------------|---------|
| - Poles         | - Sisal |
| - Reeds         | - Mud   |
| - Banana fibres | - Grass |

#### Modern materials

- |          |             |               |
|----------|-------------|---------------|
| - Cement | - Sand      | - Iron sheets |
| - Bricks | - Iron bars | - Nail        |

### Structure of a VIP



### How to maintain a VIP latrine.

- Sweeping the floor.
- Scrubbing the floor.
- Removing cobwebs and dust from walls.
- Cutting short bushes around the latrines.
- Repairing damaged walls and leaking roofs.
- Emptying it when full.

NB.

1. They are not smoked because they control a bad smell.
2. They are not covered to allow proper air circulation.

**Activity**

1. Write in full VIP.
2. Name any two characteristics of a VIP latrine
3. State any four materials which can be used for building latrines
  - a. Local materials
  - b. Modern materials
4. What is the recommended distance between a latrine and a living house?
5. State any one type of latrines.
6. Why should families have latrines?
7. Suggest the best type of latrine for a two old child.
8. Give a reason why a pit of a latrine shouldn't reach a water table.
9. How does a VIP latrine control communicable diseases.
10. What can be done to control a bad smell in an ordinary pit latrine?
11. State one way of maintaining latrines in our school.

**Evaluation**

- Strength
- Weakness
- Strategy

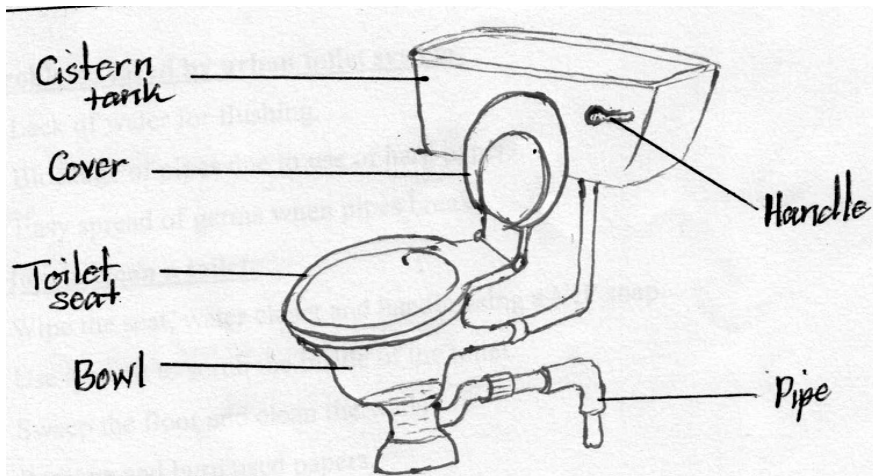
**TOILETS**

These are latrines which use water to flush waste matter into a septic tank / sewage pipes.

**Characteristics of toilets.**

- Have a bowl to deposit wastes.
- Has a seat for squatting on.
- Has a cover to act as a lid on the seat.
- Has a water closet tank for flushing.
- Has pipes under the ground to take excreta to the septic tank.
- Has a septic tank under the ground to collect excreta.

## Structure of a toilet



## How to use a toilet

- Lift the lid.
- Sit on the seat.
- Pass urine and faeces into the bowl.
- Use a soft paper to clean yourself.
- Flush the toilet after use.
- Cover the toilet after use.
- Wash your hands with clean water and soap.

## How to maintain a toilet.

- Mopping the floor.
- Cleaning the bowl with a brush.
- Repair damaged parts.
- Use soft paper to clean yourself.
- Cleaning the walls and corners with a brush.
- Always disinfect the bowl to kill germs.

## POTTIES.

These are bowls used by young children who have not yet started using other types of latrine.

## Proper use of latrines

- Never drop faeces on the floor of a latrine.
- Never leave toilets un flushed.
- Smoke or use chemicals in latrines to prevent bad smell.



- Never use fingers to clean yourself.
- Wash hands after using a latrine.

### **Problems faced by urban toilet system.**

- Lack of water for flushing.
- Blockage of pipes due to use of hard papers.
- Easy spread of germs when pipes break.

### **How to clean a toilet.**

- Wipe the seat, water closet and handle using a VIP soap.
- Use a brush to scrub the inside of the toilet.
- Sweep the floor and clean the walls.
- Remove and burn used papers.
- Repair damaged parts.
- Wash your hands after cleaning the latrine.

### **ACTIVITY**

- 1. How is a toilet related to water?*
- 2. Why is it good practice to wash hands with clean water and soap after using a latrine?*
- 3. Suggest any one thing that can make one uncomfortable when using a toilet.*
- 4. Why don't we use a hard material to clean ourselves after using a toilet?*
- 5. What are disinfectants?*
- 6. State the function of the following on a toilet.*
  - a) Water closet tank.*
  - b) Bowl*
  - c) Septic tank.*
- 7. Suggest any two things one should do after using a water borne toilet.*
- 8. Give one activity that can be done in order to maintain toilets.*

### **House ventilation**

- Ventilation is the putting of windows, doors and ventilators.
- Ventilation helps in proper air circulation in the house.
- Ventilators help to take out warm air from house.
- Doors and windows help to bring in cool air into the house.

- Ventilators are placed above windows and doors because warm air rises up as it is less dense than cool air.
- Verandah prevents flowing water from entering the house.

### **Why people live in houses**

- To get protection against bad weather.
- To get protection against vectors and wild animals.
- To protect their property.

### **Choosing a good site for a house.**

- A well drained area.
- At least 20m away from the main road.
- Near a water source.
- Near social services.
- Far from the main electricity transmission line.;

### **Damp proofing coarse (D.P.C.)**

This is a water proofing material put 30cm above the ground before building of the walls start.

### **Importance of Damp proofing**

- It prevents the water from rising up the walls by capillary action (capillarity).

### **Effects of damp houses**

- They worsen asthma and allergies.
- They are breeding places for insects e.g. termites, ants, mosquitoes.
- It can destroy house property.

### **Why should houses be painted white or with white colours.**

- To reflect heat and light to keep the house cool inside.

### **Disadvantages of sharing houses with domestic animals.**

- Animals compete with humans for oxygen in the house.
- Domestic animals have vectors that spread diseases to man.
- The dung and urine can spread germs to man.
- Animals can destroy people's property.
- The animal wastes can smell badly.

### **Vectors spread by animals to man.**

- Mites
- Fleas
- Ticks

### Elements / requirements of a good home

- Latrine
- Kitchens
- Bathroom
- Rubbish pit
- Plate stand

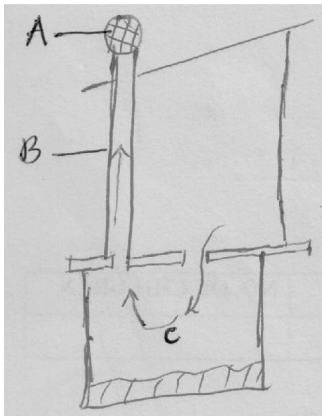
### COMMENTS

#### Activity

1. Name the two types of houses.
2. Identify two advantages of
  - a. Traditional houses
  - b. Modern houses
3. Give three reasons why it is bad to share a house with animals.

#### TESTING ACTIVITY

1. In one sentence, give the meaning of sanitation.
2. Why should a home have a latrine?
3. Suggest one health habit done after using latrines.
4. What is the required depth of a pit latrine?
5. Why shouldn't the depth of pit latrine go beyond the one given in "4" above?
6. Suggest one importance of proper house ventilation.
7. Give one reason why a flush is called a waterborne toilet.
8. Cite out one way of maintaining waterborne toilets.
9. Study the diagram below and use it to answer the following questions.



- (a) Which part of the above latrine controls communicable diseases?
- (b) Give one danger of pouring paraffin in the above latrine.
- (c) What do arrows "C" represent?

### GROWTH AND DEVELOPMENT

**Growth** is the increase in size.

**Development** is the increase in maturity.

**Puberty** is the period in time during adolescence when the body becomes sexually mature and can have a baby but not yet ready.

**Adolescent** is a transition stage between childhood and adulthood.

An adolescent is a person who is between childhood and adulthood.

**NOTE:** (i) In boys, adolescence begins at the age of 15 years and ends at the age of 21 years *depending on the reproductive hormones*

i. *The female hormones are Oestrogen and progesterone and male hormones is testosterone*

(ii) In girls, adolescence begins at the age of 12 years and ends at the age of 21 years.

*(iii) An adolescent is a person who is between childhood and adulthood.*

### **1. Primary sex changes of adolescent**

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

#### **Primary sex characteristics in boys,**

- penis and testicle increase in size
- Production of sperms in testicles.
- Wet dreams begin.

#### **Primary sex characteristics in girls.**

- Development of uterus and ovaries.
- Production of the ova in ovaries.
- Menstruation period begins.

### **2. Secondary sex characteristics of adolescent**

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

#### **Boys**

- Sweat gland becomes more active.
- Hair grows in the armpits, on the chest and face as beards.
- Hair grows around the penis and anus.
- Voice breaks and deepens.
- Muscular muscles develop.

These changes develop due to increased level of testosterone.

### **Girls**

- Sweat gland becomes more active.
- Hair grows in the armpits.
- Hair grows around the vagina.
- Enlargement and rounding of hips.
- Breasts develop in size and look more attractive.
- Face becomes smooth and good looking.

### **Both Girls and Boys**

- *Sweat glands become more active*
- *Growth of pubic hair*
- *Growth of hair under armpits*

### **3. Psychological and Emotional sex changes.**

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

e.g.

- They become interested in the opposite sex.
- They react quickly to different situations.
- They always want freedom.
- They become angry and disappointed quickly.
- They reject the rules of their parents.
- They want to be seen and recognized as mature.
- They always move in peer groups. Peer groups are groups of people of the same interests and age.

### **Problems faced by adolescents.**

- Conflicts between adolescents and their parents, teachers or elders.
- They are never satisfied with demands made on them.
- They gain forms of desires, wishes and anxiety due to sexual maturity.
- It brings sexual conflicts due to the desire for experimentation.
- They develop antisocial behaviour.

### ***Out of step adolescent changes.***

***These are changes which occur differently to different individuals in the same age group. Some of these changes may occur earlier than others or before their expected time. For example***

- *A boy who was previously short may suddenly find himself tall compared to his friends or age mates.*
- *A girl once considered small may find herself too tall or too fat compared to the rest of the girls of her age.*
- *Anxiety may be produced in those who mature late and left behind by their mates.*

### Activities

1. What is growth?
2. What do you understand by the term development
3. Define puberty
4. Who is an adolescent?
5. Identify the sex characteristic common to both boys and girls.
6. State one primary characteristic common in both adolescents boys and girls.
7. Suggest two ways of overcoming the problems faced by adolescents.

### **REPRODUCTION**

This is a process by which a living organism produces other organisms similar to itself *by which living organism multiply their numbers by producing off springs.*

#### **Types of reproduction**

- Sexual reproduction.
- Asexual reproduction.

#### **(a) Sexual reproduction**

This is the type of reproduction where reproductive cells called gametes are involved *multiplication.*

**NOTE:** (i) In animals, the male gametes are the sperm cells and the female gametes are the ova. (Both produced by gonads).

(ii) In plants, the male gametes are the pollen grains and the female gametes are the ovules.

(iii) Hermaphrodites are living organisms that have both male and female gametes e.g Earth worms, Tape worms and snails.

#### **(b) Asexual reproduction is a form of reproduction that doesn't involve reproductive cells.**

**NOTE:** In asexual reproduction, part of the individual separates off and grows into *a offspring e.g. an amoeba, yeast, bacteria and protozoa.*

e.g

- Binary fission
- Spore formation
- Fragmentation
- Budding
- Vegetative propagation

#### **Organisms that undergo Binary fission**

- Bacteria
- Amoeba
- Protozoa

#### **Organisms that reproduce by spores**

- Moulds
- Puff balls
- Mushrooms
- Toad stools
- Ferns

**Fragmentation** is when segments of an organism breaks to form new off springs e.g flat worms, yeast, Roses and coelenterates reproduce by budding.

#### **Advantages of asexual reproduction.**

- Young plant uses food from parent plant.
- Growth of young plant is rapid.
- Only one plant is needed to produce the off spring.
- Characteristics of the parent are maintained.

#### **Disadvantages of asexual reproduction**

- No new varieties are produced.
- Off springs and parent plant compete for nutrients.
- Many individuals may be destroyed in case of disaster.
- There is reduced resistance to diseases and climate.

#### **Advantages of sexual reproduction**

- New varieties are produced due to mixture of characteristics.
- Little competition for nutrients among off springs and parents.
- Off springs colonise new areas.
- Seeds / off springs are able to survive disaster.
- Good characteristics are maintained.

### **Disadvantages of sexual reproduction**

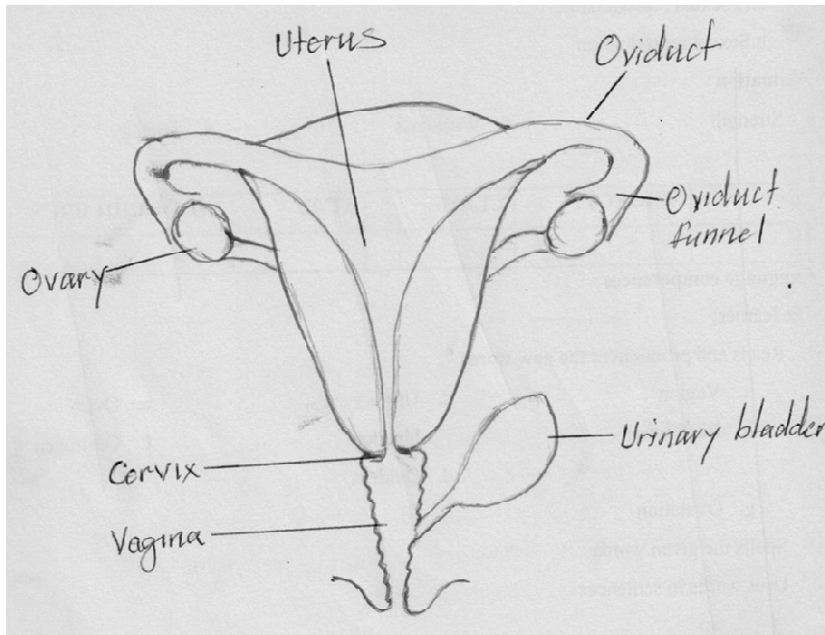
- It is a slow means of reproduction.
- Young ones gets little food from the parent.
- Leads to hereditary diseases.
- Two organisms are needed for reproduction.

### **Activities**

1. What is reproduction?
2. Name the two types of reproduction.
3. Define the term “fragmentation”.
4. Write down any two advantages of
  - a. Asexual reproduction.
  - b. Sexual reproduction
5. State any two organisms which undergo asexual reproduction.
6. How is reproduction in fish similar to that in mammals?

### **REPRODUCTION IN MAN**

#### **The female reproductive organ.**



#### **Functions of each part.**

##### **(a) Vagina**

- It is a birth canal.
- It is where sperms are deposited.



**(b) Cervix**

- It closes the lower end of the uterus when a woman is pregnant.

**(c) Uterus / womb**

- This is where the foetus grows from.
- It is where implantation takes place.

**(d) Uterus wall**

- It helps to push the baby out by the rhythmic contraction during birth.

**(e) Ovaries**

- They produce ova.
- They produce hormones called oestrogen and progesterone.

**(f) Oviduct**

- This is where fertilization of the ovum takes place.

**(g) Oestrogen**

- Controls the development of the secondary sex characteristics at puberty.
- It brings animals on heat.
- Causes the lining of the uterus to thicken before ovum is released.

**(h) Progesterone**

- Stimulates thickening and blood supply to the walls of the uterus after fertilization,

**(i) Funnel of oviduct**

- It directs the ovum into the oviduct from ovary.

**(j) Urinary bladder**

- It stores urine.

**Ovulation**

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

**NOTE:**

- Ovulation takes place 12 – 14 days from the days of menstruation.
- Menopause is the time when ovulation stops at about 45 years.

**Activities**

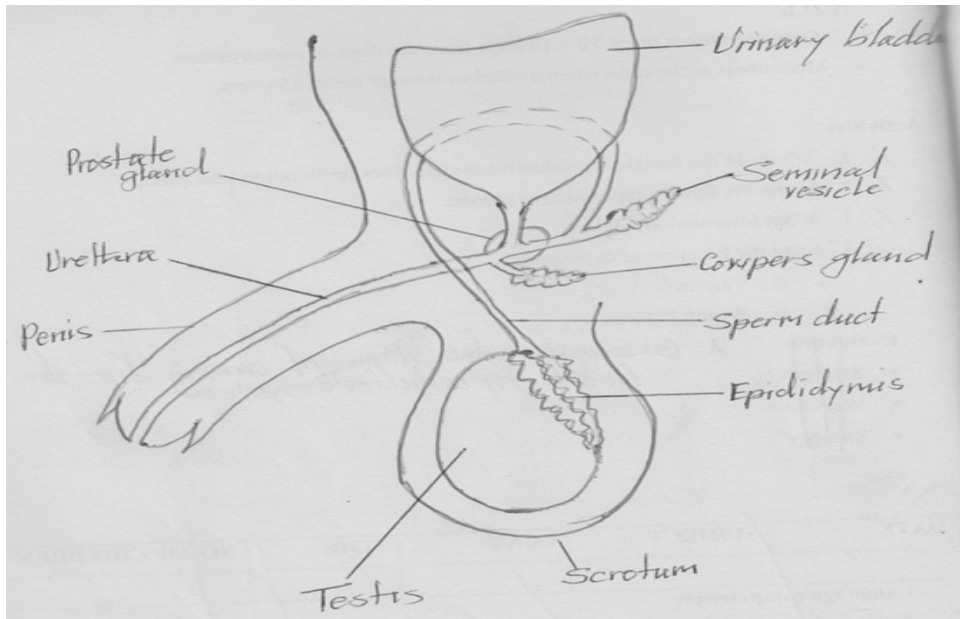
1. Where in the female reproductive system does fertilization take place?
2. Name the female reproductive gamete
3. What is ovulation?
4. State the function of these parts
  - a. Vagina

b. Womb / uterus

5. Suggest two ways of caring for the female reproductive system.

### Evaluation

- Strength
- Weakness
- Strategy



### Functions of the parts.

#### (a) Scrotum

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

The scrotums hangs out during hot weather and are pulled or drawn to the body during cold weather.

This helps to prevent sperms from being killed *by the body heat*.

#### (b) Testis

- It produces sperms.
- It produces a hormone testosterone.

#### (c) Testosterone

- It increases the sexual desires for males.
- It is responsible for secondary sex characteristics in males.

**(d) Epidydimis**

- It stores sperms. It is long about 6m and coiled.

**(e) Sperm duct.**

- Directs sperms from the testis to the urethra.

**(f) Seminal vesicles, cowper's and prostate glands**

- It produces seminal fluid called semen.

**(g) The spincter muscles**

- It controls the flow of urine from the urinary bladder.

NOTE: When urine mixes with sperms, the sperms are killed because urine is acidic.

**(h) Urethra**

- It is a passage for urine.

**(i) Penis**

- It is used to deposit sperms into the vagina.

**(j) Fore skin**

- It covers the head of the penis.
- It can be cut off to promote hygiene.

**(k) Urinary bladder urine.**

- It stores urine.

**Activities**

1. Where in the male reproductive organ are sperms?
  - a. Manufactured
  - b. Stored
2. What is the use of the hormone called testosterone in males?
3. State one way of caring for the male reproductive system.

**Evaluation**

- Strength
- Weakness
- Strategy

**FERTILIZATION**

This is the fusion of the nuclei of the male and female gametes to form a zygote from which individuals develop.

## Types of fertilization.

- External fertilization
- Internal fertilization

### (a) External fertilization

This is the type of fertilization that takes place outside the body of the female.

e.g

- Frogs
- Fish
- Newts
- Toads
- Salamanders

### (b) Internal fertilization

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

**Mating** is the sexual union of male and female organs.

**Sexual intercourse / copulation** is the act of inserting an erected penis into the vagina.

**Ejaculation** is the process by which sperms are released from the penis of the male.

**Zygote** is the name given to what is formed immediately after fertilization.

**Embryo** is a developing baby from 0 to 8 weeks.

**Foetus** is the developing baby between eight weeks and birth.

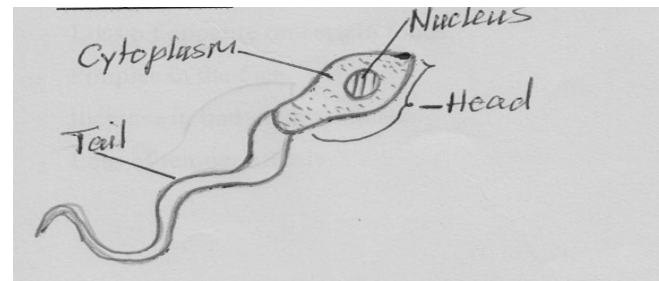
**Conception** is the act of becoming pregnant after fertilization of an ovum

**Implantation** is the process by which the zygote sticks itself onto the walls of the uterus.

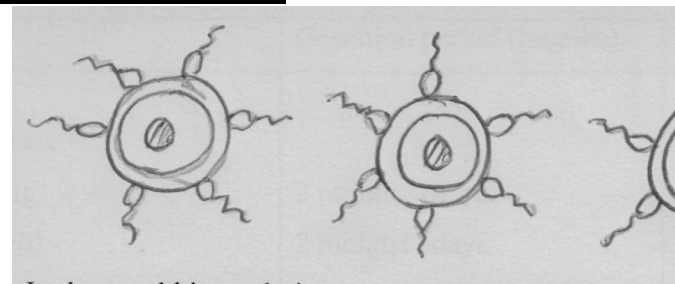
***Ovulation, fertilization, conception, impulation***

### The sperm cell

### The ovum



### Stages of fertilization



**NOTE:** (i) In dogs, rabbits and pigs, many ova are released at the same time and fertilized by different sperms.

(ii) The released ovum stays in the oviduct for about 24 hrs.

(iii) Sperms released can stay in female body for 2 – 3 days.

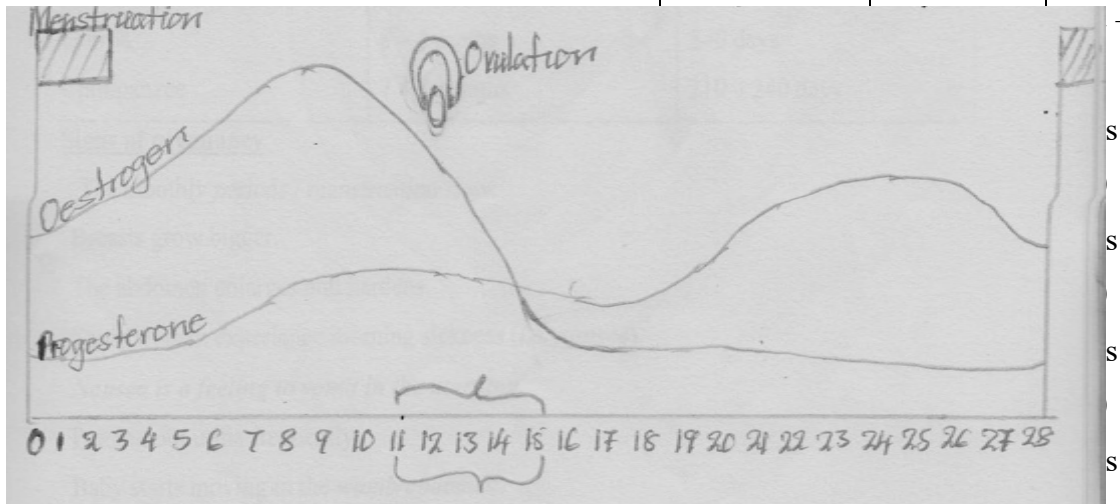
### MENSTRUATION

This is the monthly shedding of blood by the uterus walls when fertilization doesn't take place.

- If the ovum is not fertilized, the uterus wall breaks, the un wanted cells, blood and mucus are lost through the cervix and vagina.
- Menstruation occurs once after four weeks or 28 days. It normally lasts for 3 – 5 days.

### Gestation period of different animals.

Animal	Gestation period (months)	Days
Rat		21 days
Rabbit / Doe		30 days
Guinea pig	2 months	67 days
Dog (bitch)	2 months	63 days
Pig (sow)	3 months 3 days	115 days
Elephant	3 months 5 days	190 days
Cow / man	6 months	280 days
Sheep / Ewe	7 months	275 days



### Signs of menstruation.

- **Abdominal pain.**
- Loss of appetite on certain foods.
- Pimples in the face.
- Increase in body temperatures.
- Loss of temper often.

### Gestation period / pregnancy

This is the time taken from fertilization or conception to birth.

	3 – 5 months	150 days
	3 months 5 days	105 days
	6 months	180 days
	5 – 6 months	165 days
	8 – 5 months	255 days
	7 – 8 months	210 days

	months	days
		180
		days
		150 –
		180
		days
		240
		days
		210 –
		240
		days

### Signs of pregnancy

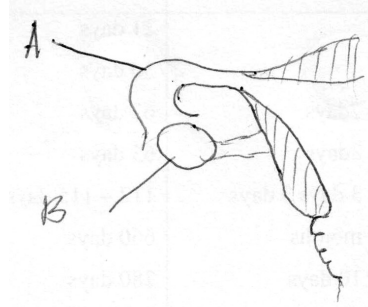
- The monthly periods / menstruation stops.
- Breasts grow bigger.
- The abdomen enlarges and hardens.
- Some women experience morning sickness (*i.e. nausea*).
- ***Nausea is a feeling to vomit in the morning.***
- Passing out urine frequently.
- Baby starts moving in the ***womb/abdomen***.
- Darkening of areas around the nipples ***on the breasts***.

### Activities

1. What is fertilization?
2. Name two types of fertilization.
3. Explain the meaning of these terms as used in reproduction
  - a. Mating

- b. Ejaculation
- c. Zygote
- d. Foetus
- e. Implantation
- f. Conception

4. Use the diagram below to answer

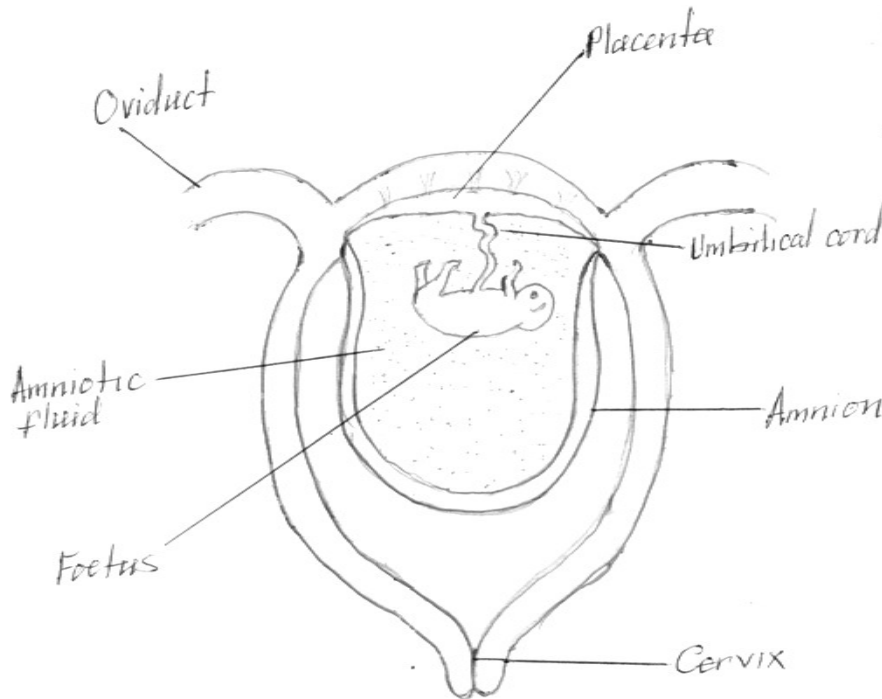


- (a) Use an arrow and letter “x” to show the part where implantation occurs.
- (b) Besides production of ova, give any other function of part “b”.
- (c) Suggest one important process that takes place in part “a” of a rat.

## Evaluation

- Strength
- Weakness
- Strategy

## HUMAN FOETUS IN THE UTERUS



### Placenta

- It attaches the embryo to the uterus.
- It prevents mother's blood from mixing with blood of foetus.
- It stores food and oxygen for the foetus.
- It is where wastes from the foetus are stored.
- It prevents dangerous chemicals to reach the baby / foetus.

**NOTE:-** *If the placenta gets damaged the mother's blood mixes with that of the foetus, which can lead to HIV/AIDS infection.*

### **Causes of damage to the placenta**

- **Straining work**
- **External injuries to the lower abdomen**

### Cord.

#### **in artery and a vein**

It carries food and oxygen from the placenta to the foetus.

It carries waste products from the foetus to the placenta.

It allows exchange of materials.

It allows circulation of mother's blood and circulation of mother's blood takes place by diffusion.

Diffusion is the movement of substances from an area of higher concentration to an area of low concentration through a semi-permeable membrane.

**permeable membrane.**

### Amniotic fluid

- Protects the foetus from harm.
- It allows the foetus to swim and move freely (reduces friction)
- It controls pressure on the foetus.

## **BIRTH**

Birth is the act of producing young ones in human beings.

Humans	Birth
Rabbits	Kindling
Cows	Calving
Sheep	Lambing
Goat	Kidding
Elephant	Calving
Sow / pigs	Farrowing

Labour is the period of pain when a mother is about to deliver a baby.

- Babies should be held upside down after birth to allow blood go to the lungs and open up the breathing system.
- Children cry after due to pain when blood reaches the lungs and change in temperatures.

### Activities

1. What is diffusion?
2. Give the functions of the following parts
  - a. Umbilical cord
  - b. Placenta
3. Match the list A with B (methods of giving birth)

#### A

Sheep

Rabbits

Goat

Elephant

Humans

#### B

Birth

Kidding

Calving

Lambing

Kindling

### TWINS

These are children born by one mother at the same time.

#### Types of twins.

- Identify twins
- Fraternal twins

- (a) **Identical twins** are those who develop from one ovum that splits into two after fertilization. They look alike.

NOTE: Identical twins share the same umbilical cord and are always the same sex.

- (b) **Fraternal twins** these are twins who result from fertilization of two separate ova by different sperms.

#### Siamese twins

These happen when the fertilized ovum divides but fails to separate fully.

The children may share organs like liver, heart, stomach and brain.

#### Multiple births

These are many children produced at the same time by the same mother. It happens when many ova are released and fertilized at the same time by different sperms.

#### Barren couples

This happen when the man is un able to produce sperms or woman has blocked oviducts.

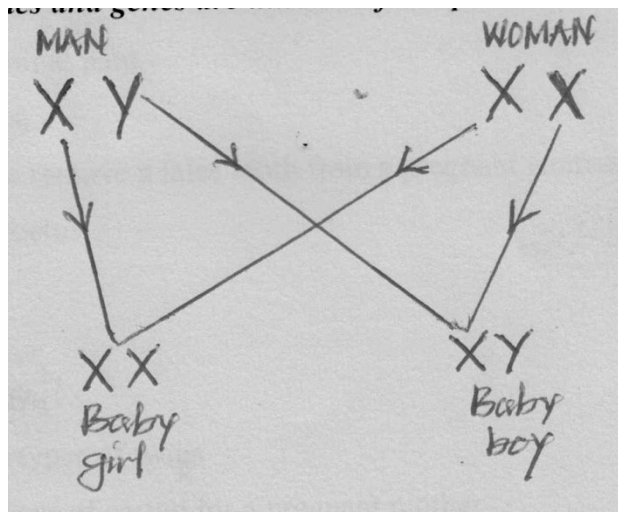
#### Sex of the child.



All females have XX chromosomes and males have XY chromosomes. All females have XX chromosomes and males have XY chromosomes which determines the sex of the child.

Chromosomes also have genes that determine shape, size, beauty and colour.

*The chromosomes and genes are inherited from parents.*



### **CARE OF A PREGNANT WOMAN**

- They need antenatal care.
- They need good nutrition.
- Must practice physical exercise.
- They need maternity dresses.
- Should not drink alcohol or smoke during pregnancy.

**Antenatal care** is the medical advice, treatment and help given to pregnant women in hospital.

### **Why pregnant women get antenatal care**

- To maintain good health.
- To learn how to care for new born baby.
- To get hygienic and modern delivery facilities from birth attendants.
- To get TT immunization.

### **Why pregnant women should get TT Vaccine.**

To protect the mother from catching tetanus.

To protect the baby from catching tetanus after birth for a few months.

### **Anger signs of pregnancy.**

Vomiting a lot and often.

Bleeding from vagina.

Severe tiredness / weakness.

- Prolonged anaemia.
- Swelling of the legs, face and hands.
- Difficult seeing.
- Severe headache.
- Severe abdominal pain.
- Swollen veins.

It is not good to remove a false tooth from a pregnant woman because she may over bleed and affect the foetus.

## Activities

1. What are twins?
2. Name any two types of twins
3. Explain four ways of caring for a pregnant mother
4. Why do women go for antenatal care?
5. Why are pregnant women given TT vaccine?

## **FAMILY PLANNING AND CHILD**

### **SPACING**

#### **FAMILY PLANNING**

- This is the use of birth control methods to plan *for how many children and when to have them within a family.*

#### **OR**

This is the producing of children by choice not by chance.

#### **CHILD SPACING**

This is providing of adequate time between two births of the family children.

#### **Advantages of family planning.**

- Family planning allows the woman's body to rest.
- It helps a family to provide basic needs to the children.
- It prevents frequent births.

#### **Dangers of frequent births**

- It leads to maternal anaemia.

- It causes miscarriage.
- Leads to pre-mature births.
- Leads to under weight babies at birth.
- Leads to high maternal mortality rate.
- Leads to frequent sicknesses to the mother

#### **Reasons why some women produce many children.**

- Ignorance of family planning methods.
- High infant mortality rate.
- Myth of the male strength.
- Desire for both sex of children.

#### **Causes of high infant mortality rates**

- Poor feeding
- Poor breast feeding
- Poor delivery
- Lack of immunizations
- Lack of enough care
- Poor hygiene and sanitation

#### **How to reduce infant mortality rate**

- Using family planning methods.
- Provide breast feeding for the first four months.
- Immunization against killer diseases.
- Treatment of illness early.

#### **Problems faced by too many children in the family**

- Lack of enough food / balanced diet.
- Lack of enough dressing.
- Lack of proper health care.
- Lack of enough love, care and attention.

### Activities

1. What is family planning?
2. Explain the term “child spacing”
3. Identify any two advantages of family planning.
4. Suggest reasons why some people produce many children.

### METHODS OF FAMILY PLANNING

#### ARTIFICIAL METHODS OF FAMILY PLANNING

- Birth control pills.
- Use of condoms.
- Birth control injections.
- Use of I.U.Ds. *e.g coils*
- Use of foams and jellies.
- Use of diaphragm.
- Use of the copper T.
- Use of tubal ligation.
- Use of vasectomy.
- Use of Norplant.

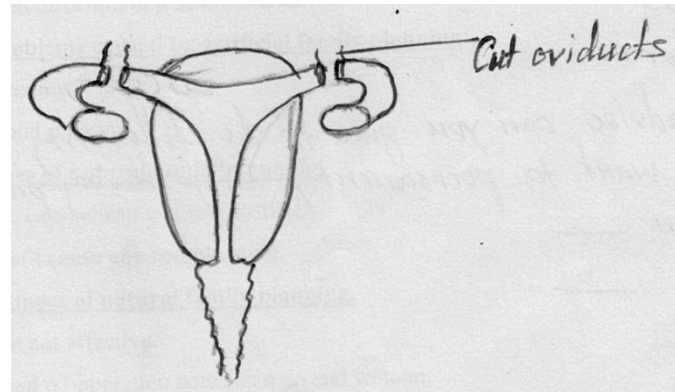
#### NOTE:

I.U.Ds - Intra Uterine Devices.

I.U.C.Ds – Intra Uterine Contraceptive Devices.

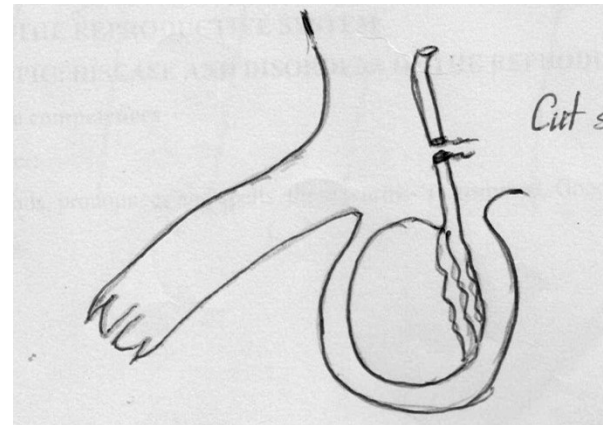
**Tubal ligation** is the cutting of oviducts in the females.

i.e



**Vasectomy** is the cutting of sperms ducts in males.

ie.



### ACTIVITY

1. What is family planning?
2. State any two importance of family planning.

- |  |                       |                                 |
|--|-----------------------|---------------------------------|
| 3. Which advice<br>can you give<br>to women who<br>are producing<br>many<br>children?                          |                       | t<br>f<br>e<br>e<br>d<br>i      |
| 4. Suggest any<br>two<br>advantages of<br>natural family<br>planning over<br>artificial<br>family<br>planning. | (iii)                 | C<br>o<br>n<br>d<br>o<br>m<br>s |
| 5. Give two<br>reasons why<br>some people<br>produce many<br>children in<br>homes.                             |                       |                                 |
| 6. How do the<br>following<br>prevent<br>pregnancy:  |                       |                                 |
| (i)  | I<br>U<br>D<br>S      | (a) W<br>o<br>m<br>e<br>n       |
| (ii)   | B<br>r<br>e<br>a<br>s | (b) M<br>e<br>n                 |

7. Which advice  
can you give  
to the  
following  
people if they  
want to  
permanently  
stop producing  
:

**Natural family planning method**

- Abstaining from sex.
- Withdraw method.
- Reading the menstrual cycle (Rhythm).
- Prolonged breastfeeding.

#### **Advantages of Artificial family planning**

- They are effective.
- They are commonly available.

#### **Disadvantages of artificial family planning methods.**

- They have health problems.
- They need direction of a health worker.

#### **Health problems caused by artificial family planning**

- Over bleeding.
- High blood pressure.

#### **Advantages of natural family planning.**

- They are easy, cheap and low costing.
- They don't cause any complication.

#### **Disadvantages of natural family planning.**

- They are not effective.
- They need co-operation between man and woman.

### **MYTHS AND MISCONCEPTIONS ABOUT FAMILY PLANNING METHODS**

- Using birth control pills and injections cause cancer
- Family planning increases fornication and adultery among people
- Europeans brought family planning to make Africans sterile
- Some family planning methods lead to producing of abnormal children
- Vasectomy is castration
- Birth control methods should be used by only women not men

### **Theme: THE HUMAN BODY**

#### **Topic: The Reproductive System**

#### **CONTENT: Diseases and Disorder of the Reproductive system**

These include;

1. Gonorrhea
2. Syphilis
3. Chancroid
4. AIDs

STD's – Sexually Transmitted Diseases

STI's – Sexually Transmitted Infections.

VD's - Venereal Diseases STD's / STI's or

VD's are diseases spread from one infected person to another through sexual intercourse.

#### **GONORRRHOEA**

Gonorrhoea is an STD caused by a bacteria called **gonococci**.

#### **Signs and symptoms**

- Burning pain when urinating.
- Smelly discharge of pus from the penis or vagina.
- Painful swelling of testicles.

#### **How it is spread.**

- Having sexual intercourse with infected person.
- From mother to baby's eyes during delivery.
- Sharing under wear, bedding, towels and basins with infected people.

#### **Prevention**

- Abstain from sex.
- Be faithful to your partner.
- Use condoms always during sexual intercourse.
- Get early treatment with antibiotics.

**Note:** Gonorrhoea can make the unborn baby blind. It can be seen when pus come out of the child's eyes.

#### **Activity**

1. Suggest one danger of not treating gonorrhea early.
2. Name the diseases of the reproductive system.
3. What causes gonorrhea?
4. Why is gonorrhoea called an STD?

5. Name the disease of the reproductive system which causes sterility in women.
6. Why is gonorrhea called an STD

### **SYPHILIS**

Syphilis is caused by a bacteria called **Treponema Pallidum**. It is passed from one person to another through sexual intercourse.

#### **Signs and symptoms.**

##### **B. Primary stage 2-5weeks.**

- i) An open sore (chancre) full of syphilis germs appear s on the penis, or in the vulva of the female.
- ii) The sore is pain less and lasts for few weeks and disappears.

##### **C. Secondary stage 5weeks – Several years**

- i) Sore throat.
- ii) Loss of hair on the head.
- iii) Swollen painful joints.
- iv) Swollen lymph nodes.
- v) Painful rash on the skin.
- vi) Mouth sores.

#### **Activity**

- 1.State the cause of syphilis.
2. State the causes of Syphilis.
3. Name the signs and symptoms of Syphilis.
4. How is syphilis spread?

At this stage, the person is very infectious and those signs and symptoms may last for a few weeks or months and disappear.

**C. Tertiary stage 5 – 20 Years.**

- Large sores that are difficult to heal develop on the skin.
- Severe abdominal pain.
- Insanity (madness).
- Paralysis.
- Heart diseases.

## **AIDS**

AIDS is also an STD spread through sexual intercourse with an infected person.

AIDS is caused by a virus called HIV – Human Immune Deficiency Virus.

AIDS Acquired – to get

Immune – protected

Deficiency - lack of

Syndrome - a group of common signs and symptoms of many diseases. HIV is a very small microscopic virus which attacks the white blood cells and destroys the person's immunity, therefore making the body easy for other diseases to attack and kill the patient.

### **How the virus is transmitted**

### **Traditional and social practices which can lead to transmission of HIV.**

- Tribal circumcision.

### **Congenital syphilis.**

This is a type of syphilis acquired by the fetus from an infected mother through the placenta.

### **Prevention of syphilis**

- Use ABC method i.e.

A - Abstain from sex.

B – Be faithful to one partner.

C - Use Condoms

- Avoid extra marital and pre- marital sex.

- Having sexual intercourse with an infected person.

- Transfusion with infected blood.

- Using unsterilized and contaminated skin piercing instruments.

- From infected mother to the unborn baby through the placenta.

- From infected mothers to their babies through breast feeding.

### **Activity**

1. What causes of AIDS
2. Write AIDS in full
3. Explain how the virus is spread.

- Tribal tattooing, cutting patterns on the skin for beauty as part of culture.
- Extraction of false teeth.
- Tribal rituals like sharing of blood.
- Having sexual intercourse with a brother's wife, son's wife or step mother.
- Giving a young girl to an in-law to look after.

### **People at a risk of getting AIDs.**

- Young and old people between 15-45years.
- Prostitutes / sex workers who sell their bodies for money.
- Bar maids.
- Long distance travelers e.g drivers, business men and women traders.
- Medical workers who test AIDs victims.

### **Signs and symptoms of AIDs.**

- Persistent or recurrent fever.
- Chronic diarrhea for about one month.
- Loss of body weight
- Chronic cough.
- Oral thrash in the mouth.
- Skin rash cancer (Kaposi sarcoma).
- Mental disturbance.
- Herpes zoster ( kisipi).

### **Activity**

1. Write down the traditional and social practices which can lead to transmission of HIV.
2. Naming people at a risk of getting AIDs.

### **Prevention of HIV/AIDs.**

- Abstaining from sex.
- Being faithful to one partner.
- Using condoms.
- Avoid pre-marital and extra-marital sex.



- Screening blood before transfusion.
- Sterilizing medical instruments before use.
- Avoid sharing instruments.

### **Other Sexually Transmitted Diseases.**

Genital herpes – caused by a virus.

Genital warts – caused by a virus.

Candidiasis – caused by a fungus.

Trichomoniasis – caused by protozoa called trichomonas

### **Disorders of the Reproductive System.**

- Low sperm count in men.
- Impotence in men.
- Sterility in both in and women.
- Ectopic pregnancy.
- Hydro cells in men.

### **General ways of preventing STDs**

- Have a life long trusted partner.
- Always get early treatment.
- Use condoms.
- Both partners go for HIV test.

### **Care of the Reproductive System**

- i) Keep your external sex organs clean always, by washing with clean water and soap.
- ii) Wear clean under wear to cover and protect sex organs from dirt.
- iii) Do not involve yourself in sexual relationships unless you are married.
- iv) Avoid drug addiction because it weakens your sexual ability especially men.
- v) Avoid sharing sharp piercing objects e.g. Syringes.
- vi) Always screen blood before blood transfusion.
- vii) Visit a health worker incase of any problem in the reproductive system.

### **Activity**

1. State Ways of Preventing HIV/ AIDs.
2. Name other STDs

3. State ways of preventing HIV/AIDs.
4. Name other Sexually Transmitted Diseases.
5. Write the disorders of the reproductive system.

## **PIASCY**

PIASCY stands for:

Presidential Initiative on AIDs Strategy for Communication to the Youths.

PIASCY was introduced by the president of Uganda, His Excellency Yoweri Kaguta Museveni.

### **Importance of PIASCY.**

- PIASCY educates children i.e. the youths on reproductive health i.e. to understand their different changes during adolescence.
- PIASCY Teachers youths how they should express themselves before their parents, teachers and elders.
- PIASCY enables boys and girls to associate freely with each other.
- PIASCY has reduced on the number of school dropouts especially girl children as a result of early pregnancies.

### **PIASCY MESSAGES**

- Abstain from sex.
- Think before you act.
- Spare sex for married people.
- Respect the elders.
- Boys and girls have equal rights.
- Never accept gifts from strangers.
- Promote Girl child education.
- Avoid bad touches.
- Always dress decently.
- A clean mind, in a clean body and in a clean environment.

### **Activity**

1. State the importance of **PIASCY**.
2. Write down some **PIASCY** messages.

### **Disorders of the reproductive system.**

- Low sperm count in men.
- Lack of erection by men.
- Ectopic pregnancy in women.
- Miscarriages.
- Blocked fallopian tubes / oviducts.

### **Prevention and control of STDs.**

- Abstain from sex.
- Use of condoms.
- Being faithful to one partner

### **Activity**

1. Write down any four artificial methods of family planning
2. State any two natural methods of family planning
3. Name any three diseases of the reproductive system.
4. How can the diseases you have named above be prevented in a family.