SCIENCE LESSON NOTES FOR P.4 TERM III 2020

Communicable intestinal diseases

These are diseases that can spread from one person to another.
Communicable diseases can be called infectious diseases transmissible diseases

Examples of communicable diseases

- Measles
- Diarrhoea
- AIDS
- Ebola
- Malaria
- Bilharzias
- Dysentery
- Polio
- Tuberculosis

Non communicable diseases
These are diseases that do not spread from one person to another.

Examples of non communicable diseases

- Diabetes
- Anaemia
- Kwashiorkor
- Rickets
- High blood pressure
- Cancers
- Heart attack
- Sickle cells

Diarrhoeal intestinal diseases (faecal diseases)
Diarrhoea is the passing out of watery faeces frequently.

Examples of diarrhoeal diseases

- Dysentenry
- Diarrhoea
- Cholera
- Typhoid

Causes of diarrhoea

- Bacteria
- Viruses

- Worms

Dehydration

Dehydration is a condition of the body when it does not have enough water in it.

Causes of dehydration

- Severe diarrhoea
- Severe vomiting

Signs of dehydration

- Sunken eyes
- Little or no urine
- Dry lips
- Dry lips
- Dry eyes
- Sunken soft spot on a babies head (fantanelle)
- A pinch of skin takes long to go back to its position.

Prevention of diarrhoea

- Covering left over food
- Washing hands before eating food
- Drinking clean boiled water
- Washing hands after visiting a toilet
- Proper disposl of faeces in latrines
- Washing fruits and vegetables before eating them
- Destroying breeding places for houseflies
- Proper disposal of rubbish

Treatment of dehydration

- Giving the victim oral rehydration solution (ORS)
- Drinking a lot of fluids eg water , fruit juice , milk

How to prepare ORS from the suckets

- Wash hands with clean water and soap
- Measure one litre of clean cold water in a clean container.
- Open one packet of ORS into water.
- Mix the solution
- Paste the solution
- Give the solution to the victim

Preparing ORS using salt , sugar and water

- Wash hands with clean water and soap.
- Measure one litre of clean boiled water in a clean container
- Measure one leveled tea spoon of salt and eight leveled tea spoon of sugar in water.

- Mix the sugar and the salt with water to dissolve
- Taste the solution
- Give the solution to a dehydrated person.
- A solute
- A solvent

Dysentery

Dysentery is the passing out of watery faeces with blood.

Causes of dysentery

1. Bacteria (shigella) bacillary dysentery
2. Amoeba amoebic dysentery

How dysentery spreads

- Drinking contaminated water
- Eating contaminated food
- Eating using unwashed contaminated hands.

Signs and symbols of dysentery

- Severe bloody diarrhoea
- Abdominal pain
- Loss of appetite
- Dehydration

Prevention of dysentery

- Proper disposal of faeces
- Proper disposal of rubbish
- Washing hands before eating
- Washing fruits and vegetables before eating them
- Washing hand after visiting latrines

Cholera

Cholera is diarrhoeal disease caused by bacteria known as vibrio cholerae.

Signs and symptoms of cholera

- Severe diarrhoea
- Severe vomiting
- Dehydration
- Body weakness

How cholera spreads

- Through drinking contaminated water
- Eating contaminated food
- Eating using contaminated hands
- Eating contaminated fruits and vegetables

Prevention of cholera

- Drinking clean boiled water
- Covering left over food.
- Proper disposal of faeces and rubbish
- Washing hands before eating

Typhoid fever / enteric fever

Cause : It is caused by bacteria known as salmonella typhi

Signs / symptoms

- Abdominal pain
- Body temperature rise (fever)
- Headache
- Diarrhoea
- Discomfort

How typhoid spread

- Drinking contaminated water
- Eating contaminated food
- Eating with unwashed hands

Prevention and control of typhoid

- Drinking clean boiled water
- Covering leffer over food
- Washing fruits and vegetables before eating them.
- Washing hands before eating.

INTESTINAL WORMS

Intestinal worms are internal parasites

What are parasites?

Parasites are living organisms that live and get food from other living organisms for syrvival.

A host is a living organism on which a parasite depends.

Examples of intestinal worms include:-

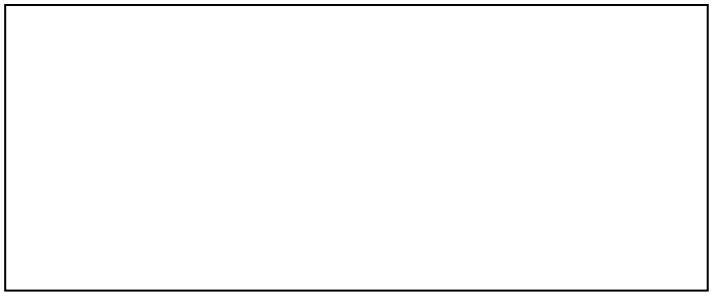
- Hook worms
- Round worms
- Tape worms
- Pin worms
- Guinea worms
- Fluke worms
- Thread worms

HOOK WORMS

- They are about 8 – 13mm in length

- They live in small intestines where they hook themselves to the walls of the intestines with their hooked mouth and feed on blood.
- The female lays eggs which pass out in stool or feaces.
- The eggs hatch out in water or damp soil and enter through bare feed especially around the ankles.
- They penetrate the skin and enter the blood streams where blood carries them to the lungs.
- From lungs they are coughed to the gullet and swallowed to the stomach and then to the small intestines where they stay.
- Hook worms are dangerous because when they become many in number they suck blood and cause anemia (Hook worm anemia)

Structure of hook worms



Signs and symptoms

- Abdominal discomfort
- Loss of weight
- Body becomes tired and weak.
- Diarrhoea
- The tongue, gums, eyelids and finger nail becomes pale.

Prevention

- Wear shoes if possible especially in wet places.
- Always use latrines and afterwards wash your hands with water and soap.

Treatment

- Go to be examined by doctor in the hospital.
- Eat meat, fish, eggs and dark green leafy vegetables.

ASCARIS WORMS (round worms)

- They are about 15 – 35cm long.
- They live in the small intestines and feed on digested.
- Children can get ascaris worms in contaminated food dirt around houses, in gardens and get round worms eggs in the finger nails.
- Ascaris worms enter our bodies through eating un washed fruits and raw vegetables where the eggs may be attached.
- When one eats un washed fruits and vegetables the eggs get into mouth, stomach and into the intestines and remain feeding or digested food.
- When they are many in number, they block the intestines and cause constipation or diarrhoea.
- Ascaris worms cause an infection called ascariasis

Structure of ascaris worms

Signs and symptoms

- Abdominal pain.
- Fever, diarrhea and restlessness.
- Grinding of the teeth in children.

Prevention

- Wash your hands before eating anything.
- Do not play in dirty places.
- Do not share plates because others may not have washed their hands.
- Wash fruits and vegetables before eating.
- Wash hands after visiting the latrine.
- Defecate in latrines only.
- Cut finger nails to avoid keeping round worm eggs.

Treatment

- Seek medical advice immediately you think you have round worms.

TAPE WORMS

- They grow to more than 30ft or 10m long.

- They enter our bodies through eating half cooked beef or pork and live in our small intestines.
- They hook themselves on the walls of the intestines and suck digested food.
- When mature, the tape worms shed their segments containing thousands of mature eggs which are passed through feaces or stool.
- The mature eggs can stay up to one year on grass until either a cow or pig eats the grass with the eggs.
- When the eggs are swallowed by either pig or cow, they enter their bodies into their blood and go for another stage of development in the mucus.

Structure

The scolex

Functions of the parts

a) hooks

attack the worm to the walls of the small intestine

b) Suckers - Suck digested food from the small intestine.

Signs and symptoms of tape worms

- The person becomes weak.
- A person passes out stool with tapeworm mature eggs segments.
- The person passes out watery diarrhea.

Spread

Through eating half cooked meat

Prevention and treatment of tape worms

- Eating properly cooked meat
- Go for treatment as soon as possible.

PIN WORMS / THREAD WORMS

- These live in the larva intestines especially in the rectum.
- The female crawls out at night through the anus and lays its eggs around the skin.
- This cause itching around the anus especially at night.
- They are white in colour and small of about 8 – 13mm long.
- When the infected person scratches the itching part and later handles food staff or puts fingers in the mouth, the eggs become swalled therefore reinfecting him / herself.
- If the eggs hatch out around the anus. The worms crawls back into the large intestines.
- However, if the infected person shares edible with someone without washing hands, the eggs are spread and the next person will swallow the eggs and become infected.
- The eggs can be contaminated beddings, under wears, knickers and they can be spread through this way.

Structure

Signs and symptoms

- Abdominal discomfort.
- Lack of sleep
- Restlessness.

Prevention and control

- Seek treatment from a qualified health worker.
- Have an infected person wear tight fitting shorts to prevent scratching of the anus.
- Change under clothing and bedding daily.
- Scrub toilet seats with soap and water everyday.

- Have family members treated.
- Wash hands with soap and clean water after the toilet.
- Cut finger nails short and kept clear.

WHIP WORMS

- They are about 35 to 50mm in length with the head smaller than the tail. This is why they are called whip worms because they look like whips worms because they hook like whips.
- They live in the large intestines without causing any symptom.
- They produce large numbers of eggs.
- If great in number, they cause diarrhea and intestinal discomfort.
- The eggs pass out with stool and hatch out in the soil.
- They enter our bodies in the same way as the round worms'

Structure

TOPICAL REVISION QUESTIONS

1. Briefly explain the meaning of diarrhea.
2. Mention any four examples of diarrhoeal diseases.
3. What is dehydration.
4. Suggest any two causes of dehydration.
5. Mention two signs and symptoms of a dehydration person.
6. Give two ways of preventing diarrhoeal diseases.
7. List down the steps taken when mixing SSS.
8. What is meant by:-
   (i) Intestinal worms
   (ii) Parasite
9. Give four examples of intestinal worms.
10. Why are hook worms and whip worms referred or called so?
11. Mention any two intestinal worms that live in
    (a) Small intestines

(b) Large intestines

12. How can one get the following worms?
    (a) Hook worms
    (b) Round worms
    (c) Tape worms
13. Suggest any two signs and symptoms of intestinal worms.
14. Why are we advised to wear shoes or sandals when going in a latrine?
15. Identify the worms below
    (a) (b) (c)

TOPIC 2
VECTORS AND DISEASES

VECTORS

- Vectors are living organisms that spread disease germs.
- Germs are living organisms that cause diseases.

Examples of common vectors

- House flies
- Tsetse flies
- Cockroaches
- Mosquitoes
- Fleas
- Black fly
- Ticks
- Lice
- Mad dogs
- Mites
- Water snails

a) Insect vectors

Houseflies , tse tse flies , cockroaches , mosquitoes

b) Animal vectors

Mad dogs / rabied dogs.

Life cycle of insect vectors

These are two types of life cycles namely

1. Complete metamorphosis: This is the life cycle with four stages of development / growth. These stages are eggs. Larva, pupa and adult.

   Examples of vectors which undergo complete metamorphosis

The diagram

- House flies
- Mosquitoes
- Black flies

2. Incomplete metamorphosis: This is the life cycle with three stages of growth. These stages are eggs, nymph and adult.

   Examples of vectors which undergo incomplete metamorphosis

   The diagram

- Cockroaches
- Fleas
- lice

The life cycle of a housefly.

Structure of a housefly

Diseases spread by a housefly

1. **Dysentery**

These are two types of dysentery namely:-

- Amoebic dysentery (caused by amoeba)
- Bacillary (by bacteria)

Dysentery is caused by the following germs:

(a) Bacteria (shigella)

(b) Protozoa (entamoeba)

How is dysentery spread

- By drinking contaminated water.
- By flies falling on our food.
- By eating contaminated food.

Signs and symptoms of dysentery

- Severe diarrhea stained with blood.
- Loss of appetite.
- Dehydration

How dysentery is prevented

- Use toilets or latrines all the time.
- Keep toilets or latrines clean.
- Wash hands before touching or eating any food.
- Wash fruits and vegetables before eating them.
- Destroy all bleeding places of house flies to stop them from multiplying

2. **Cholera**

- It is a very infectious disease that can kill in a very short time (6 – 24hrs)
- It is caused by the vibro cholera bacteria.

Signs and symptoms of cholera

- Serious diarrhea
- Vomiting
- Body weakness
- Dehydration

How to control and prevent cholera

- Use latrines / toilets daily.
- Cover left over food to avoid flies.
- Wash hands with soap and water to remove germs.
- Wash fruits and vegetables before eating them.
- Boil water before drinking it.

3. **Typhoid**

Typhoid fever is caused by a bacteria called salmonella typhi.

How typhoid is spread

- By drinking contaminated water.
- By flies falling on our food.

Signs and symptoms of typhoid

- Persistent fever with headache.
- Increasing body pain and diarrhea.
- Abdominal pain.

How to prevent and control typhoid

- Cover all foods and drinks.
- Use toilets / latrines daily.
- Drink clean boiled water.
- Observe good food hygiene.
- Wash hands with clean water and soap before eating food.
- Wash hands with clean water and soap after latrine / toilet.

4. **Trachoma**

- It is a highly contagious / infectious disease which affects the eyes.
- It is caused by a virus called Chlamydia.

How is trachoma spread

- Sharing of the same basin of water with an infected person.
- Shaking hands with another infected person and then transfer the hands to the eyes.
- Sharing of towels and handkerchiefs with an infected person.

Signs and symptoms of trachoma

- Redness and itching of the eyes.
- Swelling of the eye lids.
- Pain while looking at light.
- Watery discharge from the eye lids.

Prevention and control of trachoma

- Avoid sharing basins, towels and handkerchiefs with an infected person.
- Avoid shaking hands with an infected person.
- Get treatment as soon as possible because trachoma can make one blind.

1. Diarrhea

- It is caused by either bacteria, virus or worms.
- These germs enter our bodies when we eat or drink contaminated water and food.
- Most diarrhoeal disease are spread by the 4Fs i.e.
  Faeces ⟶ Flies ⟶ Food ⟶ Fingers in that order.

MOSQUITOES

There are three types of mosquitoes namely:-

(i) The anopheles mosquito.
(ii) Culex mosquito.
(iii) Aedes or Tiger Mosquito.

Life cycle / History of an anopheles mosquito

Life history of an aedes / Tiger and culex Mosquito

(a) The mosquito lays its eggs in stagnant water.
(b) The eggs hatch into Larva, pupa, adult.
(c) The larva stage of a mosquito is called a wriggler.

Note:

1. A mosquito goes through a complete metamorphosis.
2. Mosquitoes have a sucking mouth part called a proboscis which they use to feed.

Illustration

Habitat of Mosquitoes

Mosquitoes lay their eggs in stagnant water or they breed in stagnant water.

Types of Mosquitoes

1. **The anopheles mosquito**

   This mosquito spreads a germ called plasmodia (ium). This germ (Plasmodium) is spread by a female anopheles mosquito which cause Malaria.
   Life cycle of anopheles mosquitoes (diagrams)

   A male anopheles mosquito doesn't bite human beings. It instead feeds on nectar of flowers and juices of plants.

Malaria

a) **causes** - by plasmodia

b) **Spread** - by female anopheles mosquito

c) **Signs and symptoms of malaria**

- Tiredness or weakness.
- Rise in the body temperature.
- Rapid breathing and rapid pulse rate.
- Serious sweating of 2 – 4 hours.
- Abdominal pain, diarrhea and vomiting.
- Shivering and chattering of teeth.

2. **Culex Mosquito**

- This mosquito spreads a worm called **filarial** which causes **elephantiasis.**
- Elephantiasis makes legs to grow big and look like those of elephants hence the name elephantiasis.
- The female culex mosquito feeds on blood before it lays eggs in stagnant water.

3. **Aedes / Tiger mosquito**

- This mosquito spreads a virus which causes either yellow fever or dengue fever in human beings.
- The mosquito spreads the virus from an infected person to another and it lays eggs in stagnant water.

Note: Yellow fever can be prevented by **immunization**

How to control Mosquitoes

- Destroying any area with stagnant water.
- Slashing or cutting long grass near home or school.
- Spray insecticides to kill mosquitoes.
- Keep fish in ponds and dams to feed on mosquito larva.
- Pour oil on stagnant water. This stops the larva from breathing by cutting off oxygen supply.
- Sleep under a treated mosquito net.
- Using screens on ventilators to prevent mosquitoes from entering.

COCKROACHES

- A cockroach has a flat body. Most cockroaches are dark brown while others are black.
- A cockroach is an insect with three main body parts i.e. head, thorax abdomen.

Feeding habits of cockroach

- Cockroaches mainly move at night looking for food and water and during day time, they do not move.
- Cockroaches are active at night.

A note: A moth is also an active insect at night.

- Cockroaches feed on our food and they transmit germs on it.

Habitat

- Cockroaches hide or live in dark places like behind cupboards, Old cookers, behind refrigerators, boxes, book shelves, latrines etc.

Life cycle of a cockroach

- A cockroach undergoes an incomplete metamorphosis.
- The female lays eggs in an egg case.
- The eggs hatch into nymphs.
- Nymphs look like adult cockroaches but have shorter or n wings.
- Later, nymphs change into adults.

Dangers of cockroaches

- Cockroaches carry germs which cause diseases to us.
- Cockroaches damage our books.
- They spoil our clothing.

Diseases spread by cockroaches

Cockroaches are suspected of carrying germs (pathogens) which cause diseases.

The disease include:-

- Polio
- Leprosy
- Typhoid
- Diarrhoea
- Amoebic dysentery
- Cholera
- Food poisoning

Prevention and control of cockroaches

- Cover all the food.
- Keep the house clean.
- Smoke the latrine regularly.
- Spray the cockroaches with insecticides.
- Keep covered food in the cupboard.

TSETSE FLIES

Life cyle of a tse tse fly

Tsetse flies breed in

(i) Thick vegetation
(ii) Along river banks
(iii) Shady vegetation

Note:

1. A tsetse fly undergo complete metamorphosis.
2. A tsetsefly does not lay eggs. The eggs are just hatched within the abdomen.

Diseases spread by tsetse flies

Tsetse flies transmit a germ called tryponosoma which cause

1. Sleeping sickness (in human beings)
2. Nagana in (Animals)

Note:

(a) Sleeping sickness and Nagana are transmitted by a female tsetsefly.
(b) The female tsetse fly feeds on blood.
(c) The male tsetsefly feeds on plant juices.

Signs and symptoms of sleeping sickness

- Prolonged fever
- Loss of body weight.
- Body weakness
- One becomes sleepy.

Prevention and control of sleeping

- Spray insecticides to kill tsetse flies.
- Use traps to trap adult tsetse flies.
- Treat the infected ones in hospitals.

BLACK FLY

- It is small and black
- It is also called Jinja fly or simuliun fly.

Note:

1. A black fly breeds in fast flowing rivers where it lays its eggs.
2. It undergoes a complete metamorphosis.
3. A black fly spreads a filarial worm called **anchocerca vulvulus which causes river blindness.**

Signs and symptoms of river blindness.

- Lumps appear on legs and hips.
- Severe skin itching.
- Skin rashes appear on the body.

Prevention and control

- Spray insecticides to kill the adult black fly and its larvae.
- Treat infected people.

LICE

There are three types of lice namely:-

1. The body lice: They live in clothing. Their eggs are found in the folds and seams of clothings.
2. Hair lice: They live in the hair on our heads. They are spread by infected combs, hair brushes, hats, turbans.
3. Crab lice: they live on the hair around our private body parts. They are spread when the male and female partners join their private parts during sexual intercourse.

Note: The lice suck blood, cause itching, irritation and also spread / transmit diseases called typhus fever and relapsing fever.

How lice are controlled

- Keeping hair short.
- Washing clothings
- Ironing clothes.
- Combing hair every day.
- Spread beddings in sunshine.
- Do not share clothes.

RATS FLEAS

- Rat fleas are carried by rats.
- They transmit bacteria which causes bubonic plague.
- Bubonic plague is caused by bacteria called yersinia perstis

Signs and symptoms

- High fever.
- Swelling in the neck arm pits.
- Headache.

Prevention and control

- Kill all rats.
- Spray with insecticides to kill fleas
- People should be given anti – plague immunization in case of an out break.

WATER SNAILS

Water snails transmit the schistosoma worm which causes bilharzia (Schistosomiasis)
Bilharzias is caused by bilhazia flukes (schistosomes)

Where does the schistosoma live in the body?

- In the urinary bladder.
- Large intestines
- Small intestines.

How do we get bilharzias

- Bathing contaminated water.
- Drinking contaminated water.
- Swimming in contaminated water.

Signs and symptoms of bilharzias

- Passing out blood in urine. - enlargement of the liver and spleen
- Passing out blood in faeces.

How to prevent bilharzia

- Wearing shoes when walking in wet places e.g. swamps.
- Boiling water for drinking.
- Killing water snails
- Use latrines / toilets for proper disposal of wastes.

MAD DOGS

- Dogs transmit a virus which causes rabies.
- Other animals which transmit rabies include:-
  - Infected foxes.
  - Infected domestic cats.

Signs and symptoms of rabies

- Fever
- Headache
- Body weakness
- Salivation
- Mental confusion
- Difficult in swallowing
- Sudden death

Prevention and control

- Kill all suspected mad dogs.
- Vaccinate all dogs with anti – rabies vaccine

TICKS

- Ticks transmit a germ called rickettsia which causes typhus fever
- Ticks live on bodies of both wild and domestic animals and humans
- They feed by sucking blood from animals.

Prevention and control of ticks.

- Spray all domestic animals e.g. dogs and cats.
- Dip / spray all domestic animals e.g. cattle.
- Keep the kraal clean.

Note: Ticks are not insects because they have eight legs and have no wings.

SUMMARY

No.	Vector	Disease (s)	Cause
1.	Housefly	• Cholera • Typhoid • Trachoma • Dysentery • Diarrhoea	• Bacteria (Vibro cholera) • Bacteria (salmonella typhil) • Virus (Chlamydia) • Bacteria (Shigella), amoeba • Virus, bacteria, worms
2.	Mosquitoes (i) Female anopheles (ii) Culex mosquito (iii) Tiger / aedes mosquito	• Malaria • Elephantiasis • Dengue fever and yellow fever	• Protozoa (Plasmodium) • Filaria worm. • Dengue fever virus and yellow fever virus.
3.	Cockroach	• Leprosy • Polio	• Bacteria • Virus

		• Typhoid • Cholera • Diarrhoea • Dysentery	• Bacteria (salmonella) • Bacteria (Vibrio cholera) • Virus, bacteria worms. • Protozoa (entamoeba), bacteria
4.	Tsetse fly	• Slepping sickness in man.	• Protozoa tryponosoma
5.	Black fly	• River blindness	• Worm (onchocerca vulvulus)
6.	Rat fleas	• Burbonic plague	• Bacteria (Yersinia pestis)
7.	Itch mites	• Scabies	• Itch mites
8.	Water snail	• Bilharzias	• worm
9.	Dogs	• Rabies	• Virus
10.	Lice	• Typhus fever	• Bacteria (rickettsia)

END OF TOPIC QUESTIONS

1. (a) What are communicable diseases?
   (b) State any two examples of the above diseases.
2. What is the difference between a germ and a vector?
3. How is the larva stage of a housefly useful?
4. Give any vectors which undergo incomplete metamorphosis.
5. What name is given to the breathing organs of an insect?
6. How is a housefly able to spread germs?
7. What name is given to the
   (a) Larva stage of a housefly?
   (b) Adult stage of a house fly.
   (c) Larva stage of a mosquito.
8. List down the diseases spread by the following mosquitoes:
   (i) Female anopheles mosquito _____
   (ii) Culex mosquito _____
   (iii) Aedes / Tiger mosquito: _____
10. Identify the diseases of a mosquito that can be prevented by immunization.
11. Give any two dangers of cockroaches to man.
12. How is a nymph different from an adult cockroach?
13. Identify the disease that is spread by a tsetsefly in a
   (a) man _____
   (b) animals _____
14. Why are ticks not insects?
15. Name the germ that causes malaria.

16. Complete the table below:-

Vector	Disease
Culex Mosquito	
	Scabies
Rat fleas	_____
Water snails	_____

TOPIC 3

ACCIDENTS, POISONING AND FIRST AID

Accidents:

What is an accident?

An accident is a sudden happening that can cause harm or death

Or: It is an unexpected injury to the body.

Examples of accidents in our community

- Fractures - Poisoning - Falls - cuts
- Burns - Drowning - Electric shocks - wounds
- Scalds - Bites (i.e. snake) - Bruises - road traffic accidents

Road traffic accidents

Traffic refers to the movement of vehicles and people in a particular area.

Road traffic accidents are sudden happenings that cause death or harm to road users.

Examples of road users include:-

(a) Pedestrians: These are people who walk along roads on foot.

(b) Cyclists: These are people who ride motorcycles and bicycles.

(c) Drivers and passengers:

(d) Animals e.g. cattle, camel, horses, donkeys.

Causes of road traffic accidents.

- Over loading
- Over speeding.
- Driving under the influence of alcohol.
- Failure to follow road signs.

- Playing on roads.
- Poor conditions of roads.
- Overtaking in sharp corners.
- Careless crossing of roads.
- Driving vehicles in dangerous mechanical conditions (D.M.Cs)

Prevention of road traffic accidents

- Following or observing road signs.
- Avoid over loading vehicles.
- Never drive while drunk.
- Avoid playing on or near roads.
- Buildings should be atleast 20 metres from the road.
- Put zebra crossings on busy roads.

How to cross a busy roads

(i) First stop alongside the road.
(ii) Look right - look left.
(iii) Look right again.
(iv) If the road is clear then cross but don't run.

Where can we cross busy roads from?

- At zebra crossing
- Fly overs
- Traffic lights
- Using Islands on the road
- Where the are traffic officers / guides

Burns

Definition: This is an injury caused by dry heat e.g.

- Hot metals
- Flat iron.
- Burning fire.
- Electric heaters
- Growing charcoal.

Effects of burns

Dehydration - Severe pain
Severe wounds

Scalds

Definition:

This is an injury caused by wet heat of

- Hot water
- Hot tea
- Hot porridge.
- Steam.

How to prevent burns and scalds?

(i) Cook from a raised fire place.
(ii) Avoid playing near cooking places or open fires.
(iii) Keep young children out of fire reach.
(iv) Construct fire guards around fire places.
(v) Teach children the dangers of fire or hottings.

Why do we treat burns and scalds?

To reduce changes of infections.

POISONING

Poison is any substance which affect health or cause death when taken.
Poisoning is the act of taking in something poisonous to the body.

Examples of poison common in our community (homes, schools)

- Rat poison
- Insecticides, pesticides, herbicides.
- Liquid cleaners e.g. jik.
- Paraffin, diesel or petrol.

Causes of poisoning

- Taking expired drugs
- Eating expired foods
- Ignorance
- Taking over dose

- Poor storage of drugs

Signs and symptoms of poisoning

- Vomiting
- Rapid breathing
- Fever and sweating.
- Loss of body balance
- Mental confusion
- Internal and external bleeding.

FRACTURES

A fracture is a broken or cracked bone.

Types of fractures.

There are two types of fractures namely;-

(i) Simple fracture

(ii) Compound fracture

Simple fracture

This is when the broken bone remains inside the skin.

Signs and symptoms of a simple fracture.

- The affected part swells.
- Too much pain around the injured part.

Illustration

Compound (fracture)

This is when the broken bone comes out of the skin.

Signs and symptoms

- Severe bleeding occurs.
- Broken bone comes out of the skin.

Illustration

Green stick fracture

- This is when a bone bends but remains inside the skin.
- It is common in your children because they have soft bones.

NB : Greenstick fracture is under a simple fraction

Illustration

First Aid for fractures

Sprains, strains and dislocation

- A sprain is a torn or stretched ligament.
- A strain is a torn or stretched muscle.
- A dislocation is when a bone is displaced at a joint.

NB: Ligament join bones to bones.

Signs and symptoms of sprains, strains and dislocation.

- A lot of pain is felt.
- Swelling around the joint.
- Difficulty in moving the limbs.

Cuts

Effects of cuts.

- They cause wounds.
- Cuts cause bleeding.

Types of cuts.

Minor cuts. These are cuts which do not go deep in the skin.

Deep cuts are those which go deep in the skin.

Signs of cuts

Severe bleeding.

Bruises

What is a bruise?

A bruise is a body swelling caused by internal bleeding.

Causes of bruise

- Accidental hitting of the body parts.

Wound

Definition: A wound is a tear of the body tissues.

Types of wounds

1. Incised wounds: Are wounds caused by sharp objects that cause open bleeding. e.g. razor blade, knives.

Lacerated wounds

These are wounds caused objects with irregular edges e.g. barbed wires, animal teeth; animal claws.

Contused wounds

These are wounds caused by direct blows by some objects.

Punctured wounds.

Are wounds which have a small opening but very deep. They are caused by very sharp pointed objects

e.g. needle, nails, arrows, spears etc.

Snakes bites

The first aid for snake bites is to tie a cloth above the bitten part.

Why:

Top prevent poison from moving to the heart.

FIRST AID

Definition:

This is the immediate / first / Initial help given to a casualty before being taken to the health centre.

Who is a casualty?

A casualty is an accident victim or is a person who has got an accident.

Identify the major reason why we give first aid?

- To save life

Note: The major reason for giving first aid is to save life.

Why do we give fist aid?

(i) To save life.
(ii) To reduce pain.
(iii) To promote quick recovery.
(iv) To reduce / stop bleeding.
(v) To prevent further injuries.

Who is a first aider?

First aider is a person who gives first aid service to a casualty.

Qualities of a good first aider

- Should be observant
- Should be knowledgeable
- Should be sympathetic
- Should be skilled
- Should be clean
- Should be able to use common sense.

Responsibilities of a good first aider.

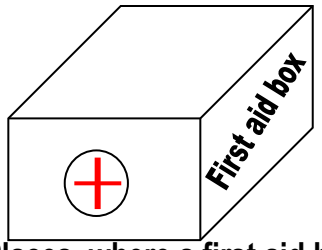
- To examine the condition of a casualty.
- To help the casualty as quickly as possible.
- To help the casualty to the nearest health unit.

First aid kit

First aid kit is a set of first aid equipment.
First aid kit is a collection of things used to give first aid.

First aid box:

This is a container where things used to give first aid are kept.



Places where a first aid box can be found

- Schools
- Homes
- Offices
- Petrol stations
- Factories
- Banks
- Airport
- Aeroplanes
- Vehicles
- Industries

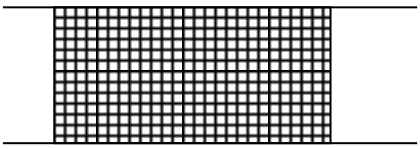
Items found in a first aid box

1.	Razor blades	:	Used to cut plasters and bandages.
2.	Safety pins	:	To fasten the bandage.
3.	Bandage	:	Used to tie broken bones
4.	Pair of scissors	:	Used to cut plasters and gauze.
5.	Surgical spirit	:	Used to wash and kill germs around.
6.	Pain killer	:	Used to kill pain.
7.	Cotton wool	:	Used to clean cuts.
8.	Clinical thermometer	:	Used to measure human body temperature
9.	Surgical gloves	:	Used to prevent contamination.
10.	Plaster	:	Used to cover wounds and cuts.
11.	Splints	:	Used to tie and keep the broken in position.

Note:

1. Arm sling holds the broken bone in position.
2. Stretcher is used to carry casualties who can't walk to the health unit (centre)
3. First aid kit is used to give first aid.

Stretchers



First aid for injuries

1. Burns and scalds

Put the injured part in cold water

Why do we put or pour cold water

- To reduce heat in the skin
- To reduce destroying the body cell.

2. Poisoning

Give the casualty plenty of fluids to dilute poison in case of paraffin or petrol

NOTE : Do not make a person to vomit. Why ?

Vomiting can damage throat and lungs.

b) Make a casualty to vomit if he has taken rat poison or any other kind of poison.

How to make the casualty to vomit

1. Give him water mixed with soap.
2. Place the finger in his mouth to the throat
3. **Fracture** : Tie a splint around the injured part.

Reason for typing on splint

To keep the broken bone in position so as to prevent further injuries.

4. Sprain , strains and dislocation

- Wrap a cold wet bandage around the injured part
- Apply a splint incase of a dislocation.

Cuts :

Tie the cut with a clean bandage to reduce bleeding pressure.

Bruises

Apply a cold compress

Wounds

Wash the wound with clean water and soap / surgical spirit.

Snake bites

Tie tightly a piece of cloth above the bitten part.

Why ? to prevent poison from moving to the heart.

TOPICAL QUESTIONS

1. What is an accident?
2. Identify any two common accidents in our homes.
3. How useful are the following during first:-
   (a) Stretcher.
   (b) Sling

(c) Splints.

4. (a) Define a fracture.
   (b) Why is a green stick fracture common among young children?
   (c) What first aid can you give to some one who has got a fracture?
   (d) State any two causes of fractures.

5. (a) Explain the term poisoning.
   (b) State any two common causes of poisoning in our homes.

TOPIC: KEEPING RABBITS

Definition of rabbitry

- It is a farm of rabbits.
- It is a place where rabbits are kept.

Terms used in keeping of rabbits.

(a) Rabbit keeping : This is the rearing of rabbits.
(b) Hutch / pen : This is the home / housing structure of a domestic rabbit.
(c) Borrow : This is a habitat / home of a wild rabbit.
(d) Buck : This is a mature male rabbit.
(e) Doe : This is a mature female rabbit.
(f) Reveret / kit/ kitten : This is a young rabbit.
(g) Litter : This is a group of young rabbits born together at the same time by one doe.

External parts of a rabbit

Diagram showing

- Head
- Eyes
- Ears
- Nostrils
- Back
- Thighs
- Tail
- Whiskers
- etc.

Reasons why people keep rabbits / uses of rabbits

- Rabbits provide us with meat which is a source of proteins.
- Rabbits are sources of income / money when sold.
- The dung of rabbits can be used as manure in our gardens.
- Some rabbits are kept for their fur.
- Rabbit skins are used to make articles like bags, shoes, etc.
- Rabbits can be kept as pets (for pleasure)

Advantages of keeping rabbits over other animals.

- Rabbits need less food than other animals like goats.
- They do not need a lot of land.
- Management practices like feeding and housing are easily carried out.
- Rabbits multiply quicker than other animals.
- They mature quickly.
- They are cheaper to buy.

Breeds of rabbits

1. **Local rabbits**
    - These have been kept in Uganda for a long time.
    - They are resistant to most diseases.
    - They take long to mature.
    - They are hardy to harsh weaker conditions.
    - They have many different colours.
    - They are smaller than exotic breeds.
    - They can live in the bush.
    - They dig holes in the ground where they live.

Exotic breeds of rabbits

- These breeds were imported from other countries.
- They have the same colour.
- They produce bigger quantities of meat.
- They have the same weight and size.
- Their young ones carry parents habits.

Differences between local and exotic breeds of rabbits.

Local breeds	Exotic breeds
• Have different colours • Grow slowly • Small in size. • Resistant to diseases.	• Produce young ones with the same colour. • Grow fast. • Big in size. • Easily get sick.

Examples of exotic breeds of rabbits.

They include the following:-

1. Angora rabbit.
2. Californian rabbit
3. Chinchilla rabbit.
4. Ear – lops
5. Newzealand white

Characteristics of exotic breeds of rabbits

1. The Angora rabbit
   - They are white in colour.
   - They produce fine silky hair which has ready market in Europe.
   - They produce good quality meat.

2. **California rabbit**
   - The body is white with the nose; tail and feed are black or dark brown.
   - Grow faster than other breeds of rabbits.
   - They weigh up to 5kg when mature.

3. **Chinchilla rabbit**
   - They are grey in colour.
   - Lighter compared to New Zealand and California.
   - They weigh 3½ kg when mature.
   - They are kept for meat.
   - Their skins have ready market in Europe.

4. **Ear – lops**

- They are bigger compared to others (6kg when mature)
- Their ears drop on the sides of the head.
- They grow slowly compared to other breeds.

5. **New Zealand white**
    - They are white in colour.
    - Have short legs and produce a lot of meat.
    - Have pink eyes.
    - The doe produces 25 – 30 rabbits per year.
    - Can reach 5kg when mature.

Qualities of good rabbits to rear

The following factors should be considered when selecting good rabbits to rear.

- Select healthy rabbits with a shinny coat, bright eyes, dry clean nose, without any discharge from the eyes.
- Select rabbits that have plenty of hair and are well shaped.
- Select rabbits that produce a lot of meat.

Housing of rabbits

Qualities of a good rabbit house (hutch):

- Should be strong enough to keep off predators.
- Should be raised from the ground to protect rabbits from dogs and other wild animals.
- It should always be kept clean.
- Should be kept dry to minimize breeding of germs.
- Should allow enough air entering it.
- Should not leak on rainy days.

Materials used to construct a hutch

Wood, nails, wire mesh, iron sheets, etc.

Types of hutches (with diagrams)

- Morrant hutch (Diagram of each hutch)
- Caged modern hutch
- Traditional hutch

Management practices in rabbit keeping

(a) Feeding: Rabbits can be fed on the following

- Green vegetables
- Carrots
- Sweet potatoes leaves.
- Green grass.
- Pellets
- Banana peelings
- Potatoe peelings
- Cabbage leaves.

Points to note:

- Pellets are manufactured animal feeds.
- Rabbits should be given a block of salt to lick, to provide from them with mineral salts.
- They should be given salt dissolved in water.
- Does with young ones need more water in order to make milk for their litter.

(b) **Reproduce in rabbits**

- The act of producing young ones in rabbits is called Kindling.
- The buck mates with the doe.
- The doe then becomes pregnant.
- The doe takes 30 days to produce young ones.
- This period of pregnancy is called Gestation period.
- The doe prepares a soft bed made of soft hair from its body when it is about to produce.
- It produces between 7 – 11 young ones. If more are produced, they should be killed as the doe's milk may not be enough for all of them.
- The buck should not be kept together with the doe as it may kill the young ones.

Common Diseases of Rabbits

1. Coccidiosis

Signs and symptoms

- Diarrhoea with blood (dysentery)
- Rabbits have swollen stomach.
- Rabbits lose weight (become small and thin)
- They have rough hair.

Control of coccidiosis

- Keep the hutch clean.
- Feed rabbits on clean food and water.
- Put drugs in clean drinking water.

2. **Scours**

Signs and symptoms

- Rabbits stop feeding.
- Pain in the stomach.
- Rabbits develop diarrhea

Control of scours

- Do not give rabbits wet and mouldy grass.
- Do not give rabbits young grass.
- Clean the hutches and spray regularly.

3. **Ear caver**

Signs and symptoms.

- Itching ears.
- Ears develop wounds with a discharge and become painful.
- Control of ear cancer.
- Clean the ears using paraffin on cotton.
- Do not overcrowd the rabbits in one hutch.

4. **Pheumonia**

Signs and symptoms

- Rabbits begins shivering.
- Difficult breathing
- Rabbits lose appetite.
- They have high temperature

Control of Pneumonia

- Keep hutches dry and clean.
- Keep rabbits away from rain.
- Treat rabbits with dugs.

5. **Colds**

Signs and symptoms

- The rabbit sneezes a lot.

- Rabbit has a runny nose.

Ways of preventing diseases in rabbits

- Always keep rabbit hutches clean and dry.
- Avoid rain into hutches.
- Keep sick rabbits away from others.
- Feed rabbits well.
- Avoid over crowding rabbits in one hutch.
- Always call a veterinary officer to check on the health of rabbits.

Keeping records on a rabbit farm

Records means the written information on a farm e.g.

- Feeds records.
- Health records.
- Production records
- Breeding records
- Financial records.

Importance of keeping records.

- It helps to tell where to profit or loss is made.
- It enables the farmer to plan better for the farm.

TOPICAL REVISION QUESTIONS

1. Give the meanings of the following words.
   (a) Rabbitry (b) Hutch (c) Doe (d) Kindling
2. Of what importance is rabbit keeping to a Uganda? (Give 4 ways)
3. Why do you think it is cheaper to keep rabbits than cows?
4. Name three exotic breeds of rabbits.
5. Write two disadvantages of rearing exotic rabbits.
6. List two locally available materials that rabbits can feed on.
7. What do we call the manufactured feeds for animals like rabbits?
8. Name three diseases of rabbits.
9. Why should a hutch be kept dry?

10. Okello's rabbit has difficulty in breathing. What disease is it suffering from?
11. How can farmers prevent rabbit diseases? (Give three ways)
12. How does a rabbit move?
13. Kid is to goat as _____ is to rabbit.
14. What is the gestation period of a doe?
15. Why should a hutch be raised from the ground?
16. Why should a doe with young ones be given enough water.
17. Why are rabbits given a block of salt to lick?
18. Why should a buck and doe be allowed to mate?