**VICTORIOUS PRIMARY SCHOOL**

**PRIMARY FOUR SCIENCE LESSON NOTES TERM III 2017**

**Pd.1&2**

**Communicable intestinal diseases and worm infestations**

Communicable diseases are diseases which can be spread from one person to another. They are also called infectious diseases.

**Communicable intestinal diseases affect intestines.**

**DIARRHOEAL DISEASES –FAECAL DISEASES.**

**Examples of diarrhoeal diseases include;**

* Cholera
* Typhoid
* Diarrhoea
* Dysentery

1. **Diarrhoea**

**Diarrhoea is the frequent passing of watery stool.**

**Causes of diarrhoea**

* Diarrhoea is caused by bacteria, virus or certain parasites like worms.
* Germs enter our bodies when we drink or eat contaminated water and food.
* Most diarrhoeal diseases are spread by 4Fs ( Faeces , Flies , Food and Fingers)

**Prevention of diarrhoea**

* Left-over food should be covered.
* You should wash hands before eating and after visiting the toilet.
* Boil drinking water
* Proper disposal of faeces in toilets or pit latrines.
* Wash fruits and vegetables before eating them.
* Destroy breeding places for house flies.
* Dump house hold refuse (rubbish) in dust bins, rubbish pit and burn them.

**Treatment for diarrhoea and dehydration**

* Give extra fluids like oral rehydration salts, fruit juices etc
* Feeding on solid foods like boiled rice, cassava, posho etc

***Activity***

1. Give any three examples of diarrhoeal diseases
2. Identify two types of germs that cause diarrhoea
3. Write **D.D.D** in full
4. Suggest two ways diarrhoeal diseases can be prevented.
5. How are diarrhoeal diseases spread?

**Communicable intestinal diseases and worm infections**

**Pd.3**

1. **DYSENTERY**

Dysentery is the passing out of watery stool with blood frequently.

**Types of dysentery**

* Bacillary dysentery – caused by a bacteria.
* Amoebic dysentery – caused by amoeba.

**Signs and symptoms of dysentery**

* Defecation of watery stool with blood.
* Painful defecation
* Fever and headache

**Prevention and control of dysentery**

* Wash hands before touching food
* Eat food from clean containers
* Re-boil leftover food before eating it
* Ensure proper disposal of human waste

***Activity***

1. Name the two types of dysentery and their causes
2. Type\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cause\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Type\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cause\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. State any one sign of dysentery

3. Suggest three ways one can control the spread of dysentery.

**Pd.4**

1. **CHOLERA**

It is caused by bacteria called vibrio cholera.

These germs get to the body when we eat food or drink water which is contaminated.

**Signs and symptoms of cholera**

Severe vomiting

Severe diarrhoea

**Prevention and control of cholera**

NOTE: As in dysentery above

**Pd.4**

1. **TYPHOID**

It is also caused by bacteria called salmonella typhi.

**Signs and symptoms**

* Vomiting
* headache
* fever
* stomachache
* diarrhoea

**Prevention and control of typhoid**

**Note:** As in dysentery above

***Activity***

1. What causes the following diseases;
2. Cholera
3. Typhoid

2. State two signs of typhoid

3. Name the germ that causes Cholera.

**Pd.5 How to prevent diarrhoeal diseases**

* Ensure proper disposal of human waste
* Spray with insecticides to kill vectors
* Wash hands after visiting the toilet/ latrine
* Cover leftover food
* Warm leftover food before eating it
* Preparing food from clean containers.
* Washing hands before eating food

**Pd.6**

**DEHYDRATION**

Dehydration is the condition of the body when it does not have enough water and mineral salts in it.

**Causes of dehydration**

There are two causes of dehydration namely:-

* Severe diarrhoea.
* Severe vomiting.

**Signs of dehydration**

* Sunken eyes
* Dry lips or mouth.
* Sunken soft spot on baby’s head (fontanelle)
* Little or no urine is passed out.
* A pinch of a skin takes long to go back to its shape.

**Treatment of dehydration**

* Taking **Oral Rehydration Solution**
* Taking a lot of juices and fruits

***Activity***

1. Define dehydration
2. Name two causes of dehydration
3. As a p.4 child, suggest two ways you can identify a dehydrated person
4. Identify the treatment for a dehydrated person.

**Pd.7 How to mix Oral rehydration solution (a sachet)**

**Step. 1** Wash your hands with clean water and soap.

**Step. 2** Measure a litre of drinking water into a clean container

**Step. 3** Open the sachet of oral rehydration salts and put it in the one litre of water.

**Step. 4** Stir the mixture to form a solution.

**NB:** Do not boil the solution.

ORS is given to a person to replace the lost water and important mineral salts in the body.

**SSS-** Salt Sugar Solution**.**

**How to mix salt sugar solution (ORS locally)**

**Step. 1** Wash your hands with clean water and soap.

**Step. 2** Measure one litre of drinking water into a clean container

**Step. 3** Measure one leveled teaspoon of salt and eight leveled teaspoons of sugar into water.

**Step. 4** Stir the mixture to form a salt sugar solution.

**Note:**

* Taste the solution, it should not be too salty.
* **Salt** and **sugar** are solutesand **water** is a **solvent.**

***Activity***

1. Write O.R.S in full
2. In four sentences, describe the steps taken to prepare SSS.

**Pd.1**

**WORM INFESTATIONS**

Worms are parasites which live inside our bodies and feed on either blood or digested food.

A parasite is a living organism which lives and feed on another living organism for survival.

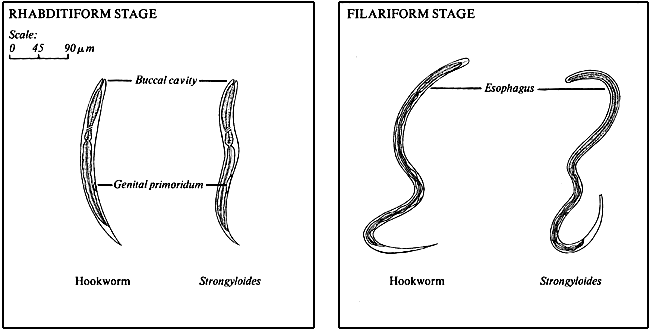
**Examples of intestinal:-**

* Hook worms - Guinea worms
* Round worms - Fluke worms
* Tape worms - Thread worms (pin worms)
* Whip worms

1. **HOOK WORMS**

* They live in small intestines where they hook themselves to the walls of the intestines.
* The female lays eggs which pass out in stool or faeces.
* The eggs hatch out in water or damp soil and enter through bare feet 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 anaemia.

**Structure of hook worms**



***Prevention of hook worms***

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

***Activity***

1. What is a parasite?
2. Give three examples of intestinal worms
3. Where in a human body do hookworms live?
4. Why are hook worms in the body called parasites?
5. Suggest two ways of controlling hook worm infestation in our body.

**Pd.2 b) ROUND WORMS**

* They live in the small intestines and feed on digested.
* Children can get round worms in contaminated food, dirt around houses, in gardens and round worms eggs can be got under finger nails.
* Round worms enter our bodies through eating unwashed fruits and raw vegetables where the eggs may be attached.
* When one eats unwashed fruits and vegetables the eggs get into mouth, stomach and into the intestines and remain feeding on digested food.
* When they are many in number, they block the intestines and cause constipation or diarrhoea.

**Structure of round worms**

**Prevention**

Wash your hands before eating anything..

Wash fruits and vegetables before eating.

Defecate in latrines only.

***Activity***

1. Draw the structure of round worms in the space below
2. What do round worms feed on?
3. How do round worms enter our bodies?
4. How do round worms cause constipation in the body?

**Pd.3 c) TAPE WORMS**

They are flat like a tape measure.

They enter our bodies through eating half cooked beef or pork.

They hook themselves on the walls of the intestines and suck digested food.

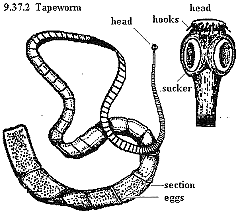
When mature, the tape worm shed their segments containing thousands of mature eggs which are passed through faeces or stool.

The mature eggs stay on grass.

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.

Tape worms get in to our bodies when we eat meat which is not well cooked.

**Structure of a tape worm**

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**Prevention and treatment**

* Do not eat half cooked meat.

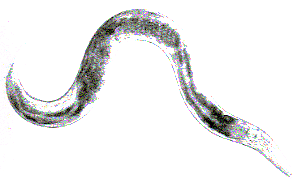
***Activity***

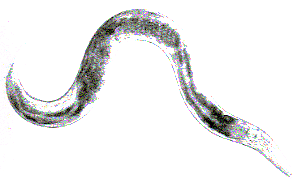
1. How do tape worms get infested onto our bodies?
2. Draw the head of a tape worm and name its parts

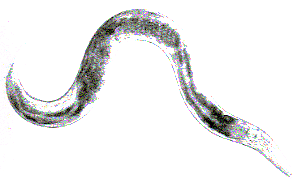
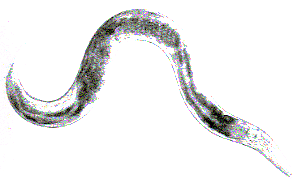
**Pd.4**

**d) THREAD WORMS / PIN WORMS**

* They resemble hook worms but they are smaller than the hook worms.
* They enter our bodies through bare feet and travel by blood to the lungs where they are coughed to the large intestines.
* The adults lay eggs outside the anus and cause itching there.
* A child with thread worms scratches around the anus.
* Some eggs remain in the child’s finger nails which can be passed on to food they touch.

**Structure of thread worms**

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****

**Other worms include;** whipworms and guinea worms.

***Activity***

1. How are thread worms different from hook worms?
2. Suggest one way thread worms enter our bodies
3. Jane usually had an itching anus. What type of worms could she be having?
4. Draw the structure of thread worms in the space provided below

**Pd.5&6**

**Common signs and symptoms of worm infestation**

-A person passes out worms in faeces.

-Worms can be coughed or vomited.

-Swollen belly.

-Itching of the anus.

-Stomach pain.

-Body weakness.

-Loss of body weight.

**Prevention of intestinal worms.**

-Proper use of latrines.

-Wash hands before eating or serving food.

-Eat properly cooked meat.

-Wash all foods which are eaten raw.

-Keep finger nails short and clean.

-Wear shoes or sandals. Never walk bare footed.

Proper disposal of faeces

**Treatment of worms**

-Carry out regular deworming.

**END OF TOPIC REVISION TEST**

**Pd.1**

**Vectors And Diseases**

**Diseases**

Adisease is an illness or infection to the body

Diseases are divided into two types namely:-

1. *Communicable* or *infectious or transmissible* diseases.

These are diseases that are caused by germs and can be spread from an infected person to a healthy person.

Examples include:

* Malaria
* HIV/AIDS
* Trachoma
* Cholera
* Diarrhoea
* Etc.

1. *Non-communicable* or *non-infectious* or *non transmissible* diseases.

These are diseases that cannot be passed from one person to another.

They include:

* **Nutritional deficiency diseases** e.g Kwashiorkor, marasmus
* **Inherited disease** e.g. Sickle cell anaemia
* **Cancer** like skin cancer, blood cancer, breast cancer, etc.

***Activity***

1. What is the difference between communicable and non-communicable diseases
2. Define "vectors"
3. State any three examples of communicable diseases
4. Why is kwashiorkor a non-infectious disease?

**Pd.2&3**

**VECTORS**

Vectors are living organisms that spread germs that cause diseases.

Germs are living organisms that cause diseases.

**Examples of common vectors**

* Houseflies - Ticks
* Tsetse flies - Lice
* Cockroaches - Mad dogs
* Mosquitoes - Mites
* Fleas - Water snails
* Black fly - Bed bugs

**Life cycle of vectors**

There are two types of life cycles namely

***Complete metamorphosis:*** This is the life cycle with four stages of development / growth. These stages are eggs, Larva, Pupa and Adult stage.

**Examples of vectors which undergo complete metamorphosis**

* House flies
* Mosquitoes
* Black flies

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

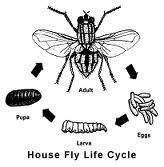
**Examples of vectors which undergo incomplete metamorphosis**

* Cockroaches
* Fleas
* Bed bugs

1. **HOUSEFLIES**

**The life cycle of a housefly**

**Diseases spread by a housefly**



* Dysentery , Cholera , Typhoid , Diarrhoea , Trachoma

**Prevention of diseases spread by houseflies**

-Keeping cooked food covered.

-Spaying adult houseflies with insecticides.

-Keeping our houses clean.

-Putting all rubbish in dust bins.

-Dispose all wastes in latrines.

***Activity***

1. What are germs?
2. Why are mud dogs called vectors?
3. Name two types of life cycles
4. Identify any three diseases spread by a housefly and name the germ that causes each disease
5. Suggest four ways of controlling germs spread by a housefly

**P.4&5**

**b) MOSQUITOES**

Where do mosquitoes live?

-They live in bushes, in dark places in houses, under beds and in forests near wter sources.

-A mosquito has a sucking tube called proboscis.

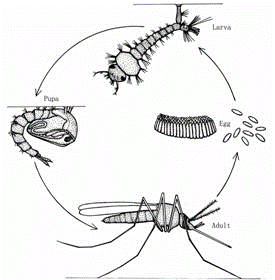
*A head of a mosquito showing proboscis*



**Types of mosquitoes**

* The anopheles mosquito
* Culex mosquito
* Aedes or Tiger mosquito

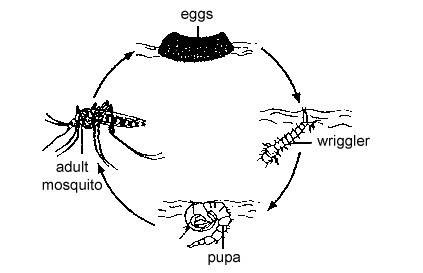
**Life cycle / History of mosquitoes**

* ******The mosquito lays its eggs on stagnant water.
* The eggs hatch into Larvae, Pupa and adult.
* The larva stage of a mosquito is called a wriggler.

**Diagrams showing life cycles of mosquitoes**

*Anopheles mosquito*

**Culex mosquito**

***Activity***

1. Where do mosquitoes live?
2. What is the sucking tube of a mosquito called?
3. Name three types of mosquitoes
4. Where does a mosquito lay its eggs?
5. What other name is given to the larva stage of a mosquito?

**Pd.6 How mosquitoes spread diseases**

* **The anopheles mosquito**

This mosquito spreads a germ called plasmodia (ium). This germ (Plasmodium) is spread by a female anopheles mosquito which causes Malaria.

The female anopheles mosquito sucks blood from an infected person and keeps it in its saliva until it bites a healthy person.

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

**Signs and symptoms of malaria**

* Body 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
* Pain in joints

**How to control Mosquitoes**

* Destroying any area with stagnant water
* Slashing or cutting long grass near home or school.
* Spraying 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.
* **Culex Mosquitoes**

This mosquito spreads a worm called **Filaria** which cause **elephantiasis**.

* **Aedes / Tiger mosquitoes**

This mosquito spreads a virus which causes either yellow fever or dengue fever in human beings.

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

***Activity***

1. What name is given to the germ transmitted by a female anopheles mosquito?
2. What does a female anopheles mosquito feed on?
3. Why can't a male anopheles mosquito spread the plasmodium germ?
4. Identify two symptoms of malaria.
5. Name the germ that is spread by the culex mosquito
6. Which vector spreads yellow fever?
7. How can yellow fever be prevented?

**Pd.7**

1. **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, and 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.

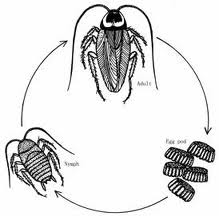
**Note**: A moth is also an active insect at night.

* 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, bookshelves, latrines etc.

**Life cycle of a cockroach**



* A cockroach undergoes an incomplete metamorphosis.
* The female lays eggs in an eggs case.
* The eggs hatch into nymphs.
* Nymphs look like adult cockroaches but have shorter or no wings.
* Later nymphs change into adults.
* Adults have very long antennae.

**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 like;

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

**How cockroaches spread diseases**

* They live in dirty places and carry germs on their body.
* When they land on uncovered food, they leave germs on it.
* When we eat that food, we get diseases.

**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.

***Activity***

1. Why is a cockroach regarded as a vector?
2. Suggest one habitat of cockroaches
3. What is the second stage of a cockroach called
4. State any two dangers of cockroaches
5. Name any four diseases spread by a cockroach
6. How do cockroaches spread diseases?
7. Identify any three ways we can control the spread of diseases by cockroaches

**Pd. 1&2**

1. **TSETSE FLIES**

Tsetse flies look like houseflies but they are bigger in size.

They have a sharp proboscis for sucking blood.

Tsetse flies breed in:-

(i) Thick vegetation

(ii) Along river banks

(iii) Shady vegetation

**Note:** They are very active in little sunshine.

A tsetse fly does not lay eggs. The eggs are just hatched within the abdomen. Eggs hatch into larva inside the female tsetse fly. It passes out the larva to the ground where there is shade. The

Larva makes a hole there and grows into the pupa and later adult.

**Diseases spread by tsetse flies**

Tsetse flies transmit a germ called **trypanosome** which causes:-

* Sleeping sickness (in human beings)
* Nagana (in animals)

The female tsetse fly feeds on blood and the male tsetse fly feeds on plant juices.

*Sleeping sickness* and *Nagana* are caused by parasites called **trypanosomes**.

* Sleeping sickness and Nagana are transmitted by a female tsetse fly.
* The female tsetse fly feeds on blood.
* The male tsetse fly feeds on plant juices.

**Signs and symptoms**

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

**Prevention and control**

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

***Activity***

1. Identify any two places tsetse flies breed from
2. What type of life cycle do tsetse flies undergo?
3. Why does the diagram for the life cycle of tsetse flies show three stages and yet a tsetse fly under goes four stages of development?
4. Identify a disease caused by the trypanosomes in human beings and in animals
5. Identify the similarity between a male tsetse fly and a male anopheles mosquito
6. Suggest one way of controlling trypanosomiasis in people

**Pd.3**

1. **BLACK FLY**

It is small and black. It is also called Simulium fly.

**Note:**

* A black fly breeds in fast flowing rivers where it lays its eggs.
* It undergoes a complete metamorphosis.
* A black fly spreads a filarial worm 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 larva.
* Treat infected people.

***Activity***

1. What other name is given to a black fly?
2. Where does a black fly lay its eggs?
3. Name the vector that spreads river blindness
4. Give two signs of river blindness
5. Suggest one way of controlling the spread of river blindness

**Pd.4**

1. **ITCH MITES**

* They are very small and not easily seen.
* They live on the skin surface but can also bite and enter inside.
* Itch mites spread a worm which lives and multiplies inside our skins. These worms cause a disease called **scabies.**

**How is scabies spread?**

* Through skin contact i.e shaking hands with infected people.
* Sharing clothing, beddings with infected people.
* Sharing basins of water with infected

**Signs and symptoms of scabies**

A lot of itching and scratching on the skin.

**Prevention of scabies**

* Wash the body with clean water and soap daily.
* Iron clothes after washing them.
* Do not share clothing and beddings with infected people.
* Wearing clean clothes.

***Activity***

1. Where in human beings do itch mites live?
2. How are scabies spread?
3. Identify one sign of scabies
4. How can we prevent scabies in our life?

**Pd.5**

1. **LICE**

These are three types of lice namely:-

-**The body lice:** They live in clothing. Their eggs are found in the folds and seams of clothing.

-**Hair lice**: They live in the hair on our heads. They are spread by infected combs, hair brushes

-**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 disease called typhus fever and relapsing fever.

**How to control lice**

* Keeping hair short.
* Washing clothing.
* Ironing clothes.
* Combing hair every day.
* Spread beddings in sunshine
* Do not share clothes and combs.

1. **FLEAS**

* They are small and wingless insects.
* They live in clothes, mattresses, cracks of walls, dust and on bodies of rats.
* Rat fleas are carried by rats.
* They transmit bacteria which causes bubonic plague.
* Bubonic plague is caused by a virus.

**Note:**

* When a flea sucks blood from a person with typhus fever, the fleas suck the germ in blood.

**Signs and symptoms**

- High fever

- Swelling in the neck arm pits.

- Headache

**Prevention and control of fleas**

* Cement walls to reduce dust.
* Kill all rats.
* Spray with insecticides to kill fleas
* People should be given anti-plague immunization in case of an out break.
* Close all cracks in the houses.

***Activity***

1. Name the three types of lice
2. What disease is spread by lice?
3. How can we control lice in our lives?
4. Where do fleas live?
5. What causes bubonic plague?
6. Identify two ways of controlling fleas infestation in animals

**Pd. 6**

1. **WATER SNAILS**

* Water snails transmit the schistosoma worm which causes bilharzias (Schistosomiasis)
* 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 water.

**Signs and symptoms of bilharzia**

* Passing out blood in urine.
* Passing out blood in faeces.
* Enlargement of the liver and spleen.

**How to prevent bilharzias**

* Wearing shoes when walking in wet places e.g swamps.
* Boiling water for drinking.
* Removing water plants in water sources.
* Use latrines / toilet for proper disposal of wastes.

***Activity***

1. What germ is transmitted by water snails?
2. Where does the schistosoma live in the human body?
3. Give two signs of schistosomiasis in a victim
4. How do people get infected with bilharzia?
5. Suggest two ways of preventing bilharzias

**Pd.7**

1. **DOGS**

Dogs transmit a virus which causes rabies.

**k) TICKS**

-Ticks transmit a germ called rickettsia which cause typhus fever.

-Ticks live on bodies of both wild and domestic animals.

-They feed by sucking blood from animals.

**Prevention and control of ticks**

- Spray all domestic animals e.g. dogs, cats, cows, goats etc.

- 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 typhi) * Virus (Chlamydia) * Bacteria (Shigella) * Virus, bacteria, worm |
| 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 * Food poisoning * Cholera * Diarrhoea * Dysentery | * Bacteria * Virus * Bacteria (salmonella) * Bacteria (vibtro cholera) * Virus , bacteria worms * Protozoa (Ent amoeba) |
| 4. | Tsetse fly | * Sleeping sickness in man. * Nagana in animals. | * Protozoa trypanosome * Protozoa trypanosome |
| 5. | Black fly | River blindness | Worm (onchocerca vulvulus) |
| 6. | Rat fleas | Bubonic plague | Bacteria (Yersinia pestis) |
| 7. | Itch mites | Scabies | Worm |
| 8. | Water snail | Bilharzia | Worm |
| 9. | Dogs | Rabies | Virus |
| 10. | Lice | Typhus fever  Relapsing fever | Bacteria (rickettsia)  Bacteria |

***Activity***

1. Which disease is transmitted by mud dogs?
2. What transmits rickettsia germ?
3. Suggest two ways of controlling ticks
4. Identify any four diseases and name the germ that causes each one of them.

**Pd.1 END OF TOPIC REVISION TEST.**

**Pd.2**

**Accidents, Poisoning And First Aid**

**Accidents**

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

**OR**: It is an expected injury to the body.

**Common accidents and their causes**

* Road and traffic accidents
* Burns
* Scalds
* Cuts
* Fractures

**Pd.3**

**Road traffic accidents**

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

**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
* Over taking in sharp corners.
* Careless crossing of roads.
* Driving vehicles in dangerous

Mechanical conditions (D.M.Cs)

**Prevention of traffic accidents / safety rules on the road.**

* Following or observing road signs.
* Avoid over loading vehicles.
* Never drive while drunk.
* Avoid playing on or near roads.
* Building should be at least 20 metres from the road.
* Put zebra crossing on busy roads.

***Activity***

1. Define an accident
2. Identify any four causes of road traffic accidents
3. Suggest any three ways of controlling road traffic accidents
4. Why are people usually advised to cross roads on zebra crossing?

**Pd.4**

**TYPES OF INJURIES**

1. **Burns**

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 wounds
  + Severe pain

1. **Scalds**

This is an injury caused by wet heat e.g.

* Hot water
* Hot tea
* Hot porridge
* Steam.

**First Aid for burns and scalds**

Put the injured part in cold water on pour cold water over the injured part.

**Why do we put or pour cold water?**

i) To reduce heat in the skin.

ii) To reduce destroying the body cells.

***Activity***

1. Name any two types of injuries
2. Identify any two causes of injuries at home
3. Differentiate a burn from a scald
4. What is the first aid for burns and scalds?
5. What is the use of cold water in administering first aid for burns and scalds?

Pd.5

1. **Sprains, strains and dislocations**

**Sprain :**

* A sprain is a torn on a ligament.
* It is caused by over stretching a joint

**Strain**

* A strain is a torn / over stretched muscle

**Dislocation**:

-Is a partial displacement of a bone from a joint?

* It is caused when the joint is over twisted.

Pd.6

1. **Cuts, wounds and bruises**

**Cuts**

Effects of cuts

* Cuts cause bleeding
* Cause serious pain
* Can result into wounds
* Germs can enter our bodies through cuts

**Types of cuts**

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

**First aid for minor cuts**

* Wash the injured part with clean water and soap

**Deep cuts.** These are cuts which go deep in the skin

**First aid for deep cuts**

* Tie the cut with a clean bandage

**Signs and symptoms of cuts**

* Severe bleeding
* Pain in the injured part

1. **Bruises**

A bruise is a body swelling caused by internal bleeding.

**Causes of bruises**

* Hitting of the body parts against hard objects.

**First aid for bruises**

* Apply a cold compress and tie the part with a wet and cold piece of cloth

**f) Wounds**

A wound is a tear of the body.

***Activity***

1. Name one effect of cuts to the body
2. Name the two types of cuts
3. How are minor cuts different from deep cuts?
4. What causes a bruise?
5. Suggest the first aid for a bruise
6. What is a wound?

**Pd.7**

**FRACTURES**

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

**Types of fractures.**

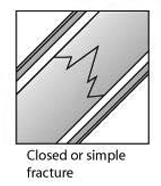
These are four types of fractures namely:-

i) Simple fracture (closed)

ii) Compound fracture (open)

iii) Green stick fracture.

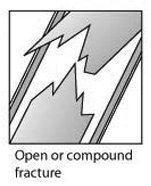
iv) Comminuted fracture (complicated fracture)

**1. Simple or closed 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.

**2. Compound (open fracture)**

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

**Signs and symptoms**

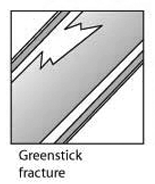
* Severe bleeding occurs
* Broken bone comes out of the skin.

***Activity***

1. What is a fracture?
2. Name four types of fractures
3. Name one sign of;
4. Simple fracture
5. Compound fracture
6. Green stick fracture
7. Comminuted fracture

3. Identify the first aid for each of the fractures mentioned above

**Pd1:**

**3. Green stick fracture**

This is when a bone bends but remains inside the skin.

It is common in young children because they have soft bones.

**4. Comminuted fracture**

This is when the bone breaks into many complicated pieces. The pieces may pierce or may not pierce the skin.

**First Aid for fractures**

Tie splints around the injured part.

Qn: *Why do we tie or apply splints around the fractured part?*

Splints keep or hold the fractured bone in position so as to prevent further injuries.

**Pd.2**

**POISONING**

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

**Common types of poison in our community**

* Rat poison
* Insecticides, pesticides, herbicides
* Liquid cleaners e.g Jik
* Paraffin, diesel, petrol
* Snake poison (poisoning by snake bites)

**Signs and symptoms of poisoning**

* Vomiting
* Rapid breathing
* Fever and sweating
* Loss of body balance
* Bleeding

**First Aid for poisoning**

1. *Poisoning by paraffin, diesel or petrol*

Give a casualty plenty of fluids to drink. This is done to dilute the paraffin or petrol in the body.

Why is it not good to make a person who has taken petrol or paraffin to vomit?

Vomiting can damage the stomach, gullet and mouth.

2. *Poisoning by rat poison, insecticides or herbicides*

Make the person to vomit.

**How to make a person vomit**

* By giving him/her water mixed with soap to drink.
* Pushing a finger in to a person’s throat.

***Activity***

1. What is poison?
2. Identify any three common types of poison in our community
3. State any two signs of poisoning
4. Describe the first aid for poisoning
5. How can you make a person vomit?

**Pd.3**

**Poisoning by snakes**

-Some snakes have poison in them. They are called poisonous snakes.

-They have two long teeth called fangs.

-Snakes use the fangs to inject poison into a person

-Snake poison is called venom.

**First aid for snake bites**

-Keep the person calm.

-Tie a piece of cloth between the bitten part and the heart.

(This piece of cloth is referred o as a tourniquet)

-A tourniquet prevents the venom from reaching the heart.

-Carry the casualty to the nearest health unit.

**Note:** A person bitten by a snake should not be allowed to walk.

***Activity***

1. How do we call snake poison?
2. What are fangs?
3. Describe the first aid for snake bites
4. Why is it not advisable for a person who has been bitten by a snake to walk?

**Pd.4**

**First Aid**

*Definition:*

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

**Who is casualty?**

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

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

**Why do we give first aid?**

* To save life
* To reduce pain
* To promote quick recovery
* To reduce / stop bleeding.
* To prevent further injuries.

**Who is a first aider?**

A first aider is a person who gives / offers first aid services.

**Qualities of a good first aider**

* Should be observant.
* Should be knowledgeable.
* Should de sympathetic.
* Should be skilled.
* Should be clean.
* Should be kind.

**Responsibilities of a good first aider**

* To help the casualty as quickly as possible.
* To assess / examine the situation of the casualty.
* To take the casualty to the health unit.

***Activity***

1. What is first aid?
2. Who is a casualty?
3. Give two reasons as to why we give first aid
4. Who is a first aider?
5. State any four qualities of a good first aider
6. Identify any two responsibilities of a good first aider

**Pd.5**

**First aid kit/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 - Airport

- Homes - Aero planes - Industries

- Offices - Vehicles

- Petrol stations etc.

***Activity***

1. What is a first aid kit?
2. What do you understand by a first aid box?
3. Identify any four places where a first aid box can be found

**Pd.6**

**Items found in a first aid box** (components)

* Razor blade : Used o cut plasters and bandages.
* Safety pins : To fasten the bandage.
* Bandage : Used to tie broken bones.
* Pair of scissors : Used to cut plasters and gauze
* Surgical spirit : Used to wash and kill germs around the wound.
* Pain killer : Used to kill pain.
* Cotton wool : Used to clean cuts.
* Clinical thermometer : Used to measure human body temperature.
* Surgical gloves : Used to prevent contamination.
* Plaster : Used to cover wounds and cuts.
* Splints : Used to tie and keep the broken bone in position.
* Gauze : for dressing the wounds.

**Note:**

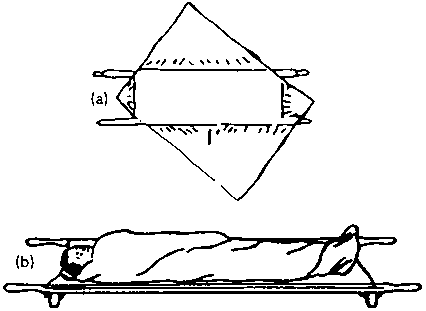
1. **Arm sling** holds the broken bone in position.

2. **Stretcher** is used to carry casualties who can’t walk.s

3. **First aid kit** is used to give first aid.

4. **Splints:** Pieces of wood tied around a fractured bone to keep it in the same position.

**Diagram of a Stretcher**

****

***Activity***

1. Identify any eight items found in a first aid box and give their uses
2. What is the use of the following in giving first aid;
3. an arm sling
4. a stretcher
5. sprits
6. first aid kit

**Pd.7 Topical test**

**Pd.1**

**Keeping Rabbits**

**Terms used in keeping rabbits**

This is the rearing of rabbits.

**Hutch / pen** : This is the home / housing structure of a domestic rabbit.

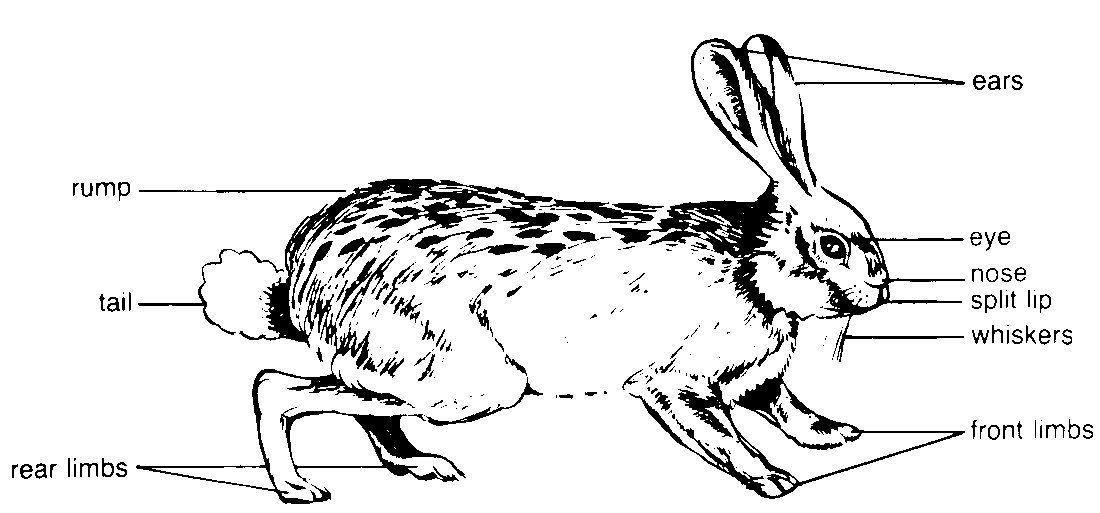
**Barrow** : This is a habit / home of a wild rabbit.

**Buck** : This is a mature male rabbit.

**Doe** : This is a mature female rabbit.

**Kit** : This is a young rabbit.

**Litter**  : This is a group of young rabbits born together in one birth.

**External parts of a rabbit**

.***Activity***

1. What is rabbitry?
2. Describe the following as used in rabbitry
3. Hutch
4. Barrow
5. Buck
6. Doe
7. Kit
8. Litter

, **Pd. 2 Reasons why people keep rabbits / uses of rabbits**.

* Rabbits provide us with meat which is 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 skin are used to make articles like bags, shoes etc.
* Rabbits can be kept as pets (for pleasure)

***Activity***

Qn. Identify any four advantages of keeping rabbits to a farmer

**Pd.3**

**Types 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 are smaller than exotic types.
* They can live in the bush.

**2. Exotic breeds of rabbits**

* These types were imported from other countries.
* They produce bigger qualities of meat.
* They grow very fast.
* They have a lot of fur on their bodies.
* They grow big in size.

**Differences between local and exotic breeds of rabbits**

|  |  |
| --- | --- |
| **Local breeds** | **Exotic breeds** |
| * They produce little meat. * Grow slowly. * Small in size. * Resistant to diseases. | * They produce a lot of meat. * Grow fast. * Big in size. * Easily get sick. |

**Examples of exotic breeds of rabbits.**

They include the following:

* Angora rabbit
* California rabbit
* Chinchilla rabbit
* Ear-lops
* New Zealand white

***Activity***

1. Name two types of rabbits
2. Write three characteristics for each of the types you have named above
3. State three examples of exotic breeds of rabbits
4. Identify any three differences between the local and exotic breeds of rabbits

**Pd.4**

**Characteristics of exotic breeds of rabbits**

**a) The Angora rabbit**

- They are white in colour.

- They produce fine silky hair.

- They produce good quality meat.

**b) California rabbit**

* The body is white with the nose, tail and feet are black or dark brown.
* Grow faster than other breeds of rabbits.

**c) Chinchilla rabbit**

* They are grey in colour.
* They are kept for meat.

**d) Ear – lops**

* They are bigger compared to others.
* Their ears drop on the sides of the head.

**e) New Zealand white**

* They are white in colour.
* Have short legs and produce a lot of meat.
* Have pink eyes.

***Activity***

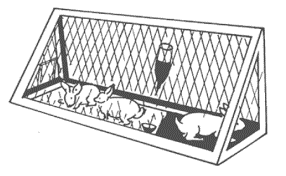
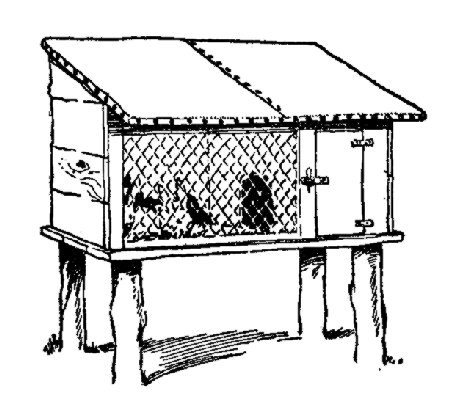
1. State two characteristics for each of the following exotic breeds of rabbits
2. Angora rabbits
3. California rabbits
4. Chinchilla rabbits
5. Ear-lops
6. New Zealand white

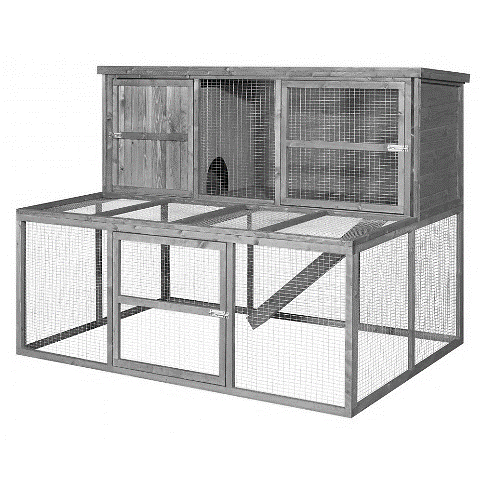
**Pd.5 Housing of rabbits**

**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.

**Types of hutches**

*******Morrant hutch* *Caged wire mesh hutch*



*Caged modern hutch*

NB: the wire mesh allow enough air and light to enter the hutch.

***Activity***

1. State any four qualities of a good rabbit house
2. Name two types of hutches
3. Draw the diagram of;
4. A caged hutch
5. A morrant hutch

**Pd.6&7 Management practices in rabbit keeping**

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

Green vegetables , carrots, sweet potato leaves, Green grass , Pellets, Banana peelings, Potato peelings, Cabbage

**(b) Reproduction in rabbits**

-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 buck should not be kept together with the doe as it may kill the young ones.

***Activity***

1. Identify any four foods of rabbits
2. What is the gestation period of a doe?
3. Why shouldn't a buck be kept together with a doe?
4. Define gestation period?
5. Why are we advised to keep a rabbit's hutch clean?

**Pd.1:**

**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.

**2. Scours**

**Signs and symptoms**

* Rabbits stop feeding
* Pain in the stomach
* Rabbits develop diarrhoea

3. **Ear canker**

*Signs and symptoms*

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

***Activity***

1. Name any three diseases of rabbits
2. Identify any two signs for each of the following diseases of rabbits;
3. Coccidiosis
4. Scours
5. Ear canker

3. Suggest one way of controlling ear canker.

**Pd.2:**

**4. Pneumonia**

**Signs and symptoms**

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

**5. Colds**

**Signs and symptoms**

* The rabbit sneezes a lot.
* Rabbit has a runny nose.
* Snuffle

**Parasites of rabbits**

Parasites are living things which live in or on others for survival.

**Types of parasites.**

**-***Internal parasites*; such as ticks, lice, mites, fleas.

-*External parasites*; such as worms.

***Activity***

1. What are parasites?
2. Give two signs of pneumonia
3. State two signs of colds
4. Give two types of parasites

**Pd.3**

**Ways of preventing diseases and parasites in rabbits**

* Always keep rabbit hutches clean and dry.
* Avoid rain into hutches
* Keep sick rabbits away from others.
* Feed rabbits well.
* Avoid overcrowding rabbits in one hutch.
* Keep rabbits in a warm place.
* De-worm rabbits regularly.
* There should be enough air and light in to the hutch.
* Always seek help from a veterinary doctor.
* Spray the rabbits with chemicals to kill parasites.

***Activity***

1. Outline any five ways of controlling parasites and diseases in rabbits

**Pd.4**

**Keeping records on rabbit farm.**

Records means the written information about activities done at the farm e.g.

* Feeds records
* Health records
* Production records
* Breeding records
* Financial records

**Importance of keeping records**

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

***Activity***

1. What are farm records?
2. Identify any three records a rabbit farmer can keep
3. Give two importance of farm records to a rabbit farmer

**TOPICAL REVISION QUESTIONS**

1. Give the meanings of the following words.

(a) Rabbitry (b) Hutch (c) Doe

2. Of what importance is rabbit keeping to Ugandans? (Give 4 ways)

3. Why do you think it is cheaper to keep rabbits than cows?

4. Name three exotic breeds of rabbits.

6. List two locally available materials that rabbits can feed on.

8. Name three diseases of rabbits.

9. Why should a hutch be kept dry?

10. Okello’s rabbit has difficulty in breathing. What diseases is it suffering from?

11. How can farmers prevent rabbit diseases? (Give three ways)

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?