

## **SCIENCE LESSON NOTES FOR P.4 TERM II 2018**

THEME: HUMAN HEALTH

TOPIC: FOOD AND NUTRITION

### **LESSON ONE**

#### **OUR FOOD**

Food is anything good to eat or drink

Feeding is the taking in of food.

Nutrition is the process by which food is taken in and used by the body.

#### **Uses of food to the body**

- (i) Food provides energy to the body.
- (ii) Food keeps the body healthy.
- (iii) Food builds the body.
- (iv) Food provides warmth to the body.

#### **Why we eat food**

We eat food everyday for the following reasons 5Hs

- To satisfy Hunger
- To be healthy.
- Because it is a habit.
- Because of hospitality.
- Because of happiness.

**NB:** The above reasons are known as the 5Hs, i.e .

- (i) Hunger (because our stomachs are empty).
- (ii) Health.(because we need to live)
- (iii) Habit (it is time of the day when we normally go out).
- (iv) Happiness. (because we enjoy eating certain foods)
- (v) Hospitality (because we have guests and its our custom to offer them food)

### **LESSON TWO**

#### **Ways people get food**

- By growing it in the garden.
- By buying it from shops, markets, supermarkets etc.
- By fishing from lakes, swamps, rivers etc.
- By hunting.
- By gathering from forests and bushes.

#### **Places where people get food (source of food)**

- (i) From shops
- (ii) From the garden
- (iii) From the supermarkets
- (iv) From markets
- (v) From lakes, rivers swamps etc.

- (vi) From forests

### **LESSON THREE**

#### **BALANCED DIET**

Balanced diet is a meal containing all food values in their right amounts.

What makes up a balanced diet?

A balanced diet is made up of (3) three main classes of food.

#### **Food values**

- Proteins
- Carbohydrates
- Fats and oils
- Water and mineral salts
- Vitamins
- Roughages

**Others include: the food values.**

- Fats and oils
- Proteins
- Carbohydrates
- Water and mineral salts
- Vitamins
- Roughages

### **LESSON FOUR**

#### **PROTEINS**

These are body building foods.

**Uses:**

- Proteins helps in making new body cells.
- Proteins help in replacement of worn out tissues / body cells

#### **Sources of proteins**

(a) **Animal proteins**

- Beef
- Chicken
- Fish
- Eggs
- Grasshoppers
- White ants
- Pork.

(b) **Plant proteins**

- Beans
- Soya beans

- Ground nuts
- Peas

## **CARBOHYDRATES**

These are food values that give us energy

### **Sources of carbohydrates**

- (i) Maize
- (ii) Millet
- (iii) Cassava
- (iv) Rice
- (v) Sorghum
- (vi) Sweet potatoes
- (vii) Irish potatoes
- (viii) Coco yams
- (ix) Matooke
- (x) Sugar cane
- (xi) Bread
- (xii) Posho
- (xiii) Honey

## **LESSON FIVE**

### **VITAMINS**

These are health giving foods

### **Types of vitamins**

- Vitamin A
- Vitamin B<sub>1</sub>
- Vitamin B<sub>2</sub>
- Vitamin C
- Vitamin D

### **Uses of vitamins**

Vitamin	Source	Importance	Deficiency disease	Sign / Symptoms
A	(i) Liver <ul style="list-style-type: none"> <li>• Cheese</li> <li>• Butter</li> <li>• Margarine</li> </ul>	(i) Increases resistance to diseases  (ii) For good night vision	<ul style="list-style-type: none"> <li>• Poor night vision (Night blindness)</li> </ul>	(i) Blurred objects  (ii) Poor eye sight  (iii) Reduced

	<ul style="list-style-type: none"> <li>• Milk</li> <li>• Eggs</li> <li>• Spinach</li> <li>• Carrots</li> <li>• Carrots</li> <li>• mango</li> </ul> (ii) Palm oil			night vision
B <sub>1</sub>	<ul style="list-style-type: none"> <li>• Unpolished cercal.</li> <li>• Beans</li> <li>• Ground nuts</li> <li>• Green leafy vegetables</li> <li>• Meat</li> <li>• Yeast</li> </ul>	<ul style="list-style-type: none"> <li>• For mental health</li> <li>• For proper growth</li> </ul>	<ul style="list-style-type: none"> <li>• Beriberi</li> </ul>	<ul style="list-style-type: none"> <li>• Poor growth</li> <li>• Paralysis</li> <li>• Forgetfulness</li> <li>• Lack of appetite</li> <li>• Body weakness.</li> </ul>
B <sub>2</sub>	<ul style="list-style-type: none"> <li>• Beans</li> <li>• Lean meat</li> <li>• Liver</li> <li>• Yeast</li> <li>• Kidney</li> <li>• groundnuts</li> </ul>	<ul style="list-style-type: none"> <li>• For mental growth.</li> <li>• For proper growth</li> </ul>	<ul style="list-style-type: none"> <li>• Pellagra</li> </ul>	<ul style="list-style-type: none"> <li>• Body weakness</li> <li>• Poor growth</li> </ul>
C	<ul style="list-style-type: none"> <li>• All fruits and vegetables</li> <li>• Oranges</li> <li>• Lemons</li> <li>• Guavas</li> <li>• Tomatoes</li> <li>• Mangoes</li> <li>• Pawpaw</li> <li>• Fresh green vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• For strong skin membrane.</li> </ul>	<ul style="list-style-type: none"> <li>• Scurvy</li> </ul>	<ul style="list-style-type: none"> <li>• Bleeding of the gums.</li> <li>• Poor healing of wounds.</li> <li>• Reduced resistance to diseases.</li> <li>• Poor growth of skin.</li> </ul>
D.	<ul style="list-style-type: none"> <li>• Butter</li> <li>• Milk</li> <li>• Cheese</li> <li>• Egg yolk</li> <li>• Liver</li> <li>• Fish liver oil</li> </ul>	<ul style="list-style-type: none"> <li>• For absorption of calcium.</li> <li>• For strong bones and teeth.</li> </ul>	<ul style="list-style-type: none"> <li>• Rickets</li> </ul>	<ul style="list-style-type: none"> <li>• Weak bones.</li> <li>• Curved</li> </ul>

## LESSON SIX

### **FATS AND OILS**

#### **Use:**

They use energy giving food so provide energy and heat.

### **Sources of fats and oils**

- Milk
- Butter
- Cheese
- Egg yolk
- Ground nuts
- Margarine
- Meat

Dangers of having little fats in the body.

- Lack of energy
- Thinner
- Rough and dry skin
- Feeling cold all the time.

**Note:** Fats are solids while oils are liquids at room temperature.

## **LESSON SEVEN**

### **MINERAL SALTS**

#### **Use:**

They are health giving foods so keep us healthy.

### **Types of Mineral salts**

- Iron
- Calcium
- Phosphorus
- Iodine
- Sodium
- Potassium
- Magnesium
- Fluoride

## **IRON**

#### **Use:**

For making red blood cells.

Formation of haemoglobin

### **Sources of iron**

- Meat
- Liver
- Calcium
- Milk
- millet
- Green vegetables e.g. spinach
- Beans

NB: Phosphorus, magnesium also strengthen bones and teeth.

## **LESSON EIGHT**

### **IODINE**

#### **Use:**

For proper functioning / working of the thyroid gland.

#### **Sources of iodine**

- Sea fish / sea foods
- Iodized salt.

#### **Calcium**

##### **Use**

For strong bones and teeth

Sources

Dry fish , milk , eggs , grains , milk products

#### **Sodium chloride**

Use

To maintain fluid balance in the body.

Source

Salt , smoked sea fish s, meat

#### **Fluoride**

##### **Use**

- Protects the tooth enamel against decay
- Strong teeth formation
- Source
- Tooth paste
- Fluoridated water

## **LESSON NINE**

Water

It makes 70% of the human body.

**Food sources of water.**

Water	tea
Juice	milk
Soda	safi
Cocoa	soup

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

- It makes digestion and absorption of food easy
- It forms the basic of blood plasma
- It reduces body temperature by sweating
- It quenches thirst
- It helps to remove waste products from the body

### **Roughages**

Roughages are the indigestible fibres from the cell walls of plants

#### **Sources**

- Green leafy vegetables
- Bread
- Seeds
- Fresh fruit
- Un polished cereals
- Processed foods

#### **Importance of roughages in the body.**

- They prevent constipation
- They reduce the risk of bowel cancer
- They allow easy digestion of food.
- They add bulk to the diet
- Allow easy movement of food through the alimentary canal

## **LESSON TEN**

### **DEFICIENCY DISEASES**

Diseases caused by lack of certain food values in the body.

#### **1. Kwashiorkor**

- (a) It is caused by lack of enough proteins in the diet.
- (b) Signs of kwashiorkor
  - Swollen belly / pot belly
  - Swollen moon face
  - Swollen feet and hands.
  - Skin rash.
  - little brown hair.

#### **Prevention of Kwashiorkor**

- Eat foods rich in proteins.

## 2. **Marasmus**

- (a) It is caused by lack of enough carbohydrates in the diet.
- (b) Signs of marasmus
  - Old man's face
  - Thin body
  - Always hungry
  - General body weakness.
  - Loss of body weight

### **Prevention of marasmus**

- Eat foods rich in carbohydrates.

## **LESSON ELEVEN**

### 3. **Anaemia**

- It is caused by lack of enough iron in the diet.
- It is prevented by eating foods rich in iron like liver, eggs, cereals, kidney, etc.

## **4. GOITRE**

- It is caused by lack of enough iodine in the diet.
- It is prevented by eating food rich in iodine like the sea foods and iodized salt.

5. Night blindness

6. Beriberi

7. Scurvy

8. Rickets

## **LESSON TWELVE**

### **Vulnerable groups of people**

These are groups of people that are easily affected by lack of proper feeding

These are groups of people that need special care in terms of feeding.

### **Examples of vulnerable**

- Pregnant mothers
- Sick people
- Weaning babies
- Elderly people
- Breastfeeding mothers

Breast feeding

It is the act of feeding baby on breast milk.

### **Importance of breast milk to a baby**

- It is easy to digest



- It contains all food values needed by the baby
- Breast milk contains antibodies which protects the baby against diseases
- It is at the right body temperature
- It is clean.

#### **Importance of breast feeding to a mother**

- It saves her time
- It is cheap
- It create love bond between the mother and the baby
- It delays the next pregnancy

### **LESSON THIRTEEN**

#### **Malnutrition**

- It is a condition when the body does not receive enough food nutrients.
- Signs / symptoms of malnutrition - tireless , loss of body weight , dullness

#### **Signs of Goitre**

- Swelling in the neck.

### **LESSON FOURTEEN**

#### **FOOD HYGIENE**

Food hygiene is the keeping of food free from germs.

#### **Proper handling of food**

- Washing hands before preparing food.
- Wash hands before serving food.
- Wash fruits and vegetables before eating them.
- Prepare food in a clean place.
- Serve food in clean containers

#### **Importance of proper handling of food.**

- It prevents food contamination.
- It preserves food for future use.
- Controls the spread of some diseases
- Protects food from vectors

#### **Ways food gets contaminated**

- Serving food with dirty hands.
- Serving food in dirty utensils.
- By some disease vectors e.g. cockroaches and houseflies.
- Preparing food in dirty environment.

- By dust falling on covered food.

### **Dangers of poor handling of food.**

- It spreads germs
- It causes the food to go bad.
- It may cause food poisoning.

## **LESSON FIFTEEN**

### **Good eating habits**

- Wash hands before eating food.
- Sit upright when eating food.
- Swallowing food after chewing it properly.
- Chewing food with mouth closed.
- Putting small lumps of food in the mouth at a time.

### **Bad eating habits**

- Eating with unwashed hands
- Eating while walking
- Swallowing food before chewing it properly
- Talking when the mouth is full of food

### **Dangers of bad eating habits**

- Eating food with unwashed hands contaminates food and may lead to diarrhea.
- Bending while eating food interferes with movement of food in the alimentary canal.
- Swallowing food before chewing properly can lead to indigestion it can also lead to choking.
- Talking when food is in the mouth leads to spitting food on other people near you.

## **LESSON SIXTEEN**

### **FOOD PRESERVATION**

Is the keeping of food for along time without getting / going bad.

### **Ways of preserving food.**

- Sun drying e.g. cassava, beans.
- Salting e.g. meat.
- Smoking e.g. fish.
- Tinning / bottling / canning. Eg beef , fish , milk
- Freezing e.g. milk. Eg milk
- Refrigerating e.g. oranges, green vegetables, milk.
- Roasting e.g. meat.
- Boiling and heating.

## **FOOD SECURITY**

This is when a family / community has enough food for eating all year round.

Food security can be achieved through.

- Growing enough food crops
- Proper food storage
- Preservation of food.
- Practicing proper farming methods.
- Improving soil fertility

### **Importance of food security**

- The family has enough food to eat throughout the year.
- It prevents deficiency diseases in the family.

### **Preparation of simple dishes**

#### **Using local methods**

- Matooke - steaming , boiling , roasting
- Millet bread – mingling
- Sweet potatoes – steaming , roasting
- Rice – boiling , steaming
- Maize bread (posho ) – mingling

## **LESSON SEVENTEEN**

### **FOOD PATH**

Is process by which food is got from the garden to the time of use /consumption.

### **TYPES OF FOOD PATH**

#### **Village food path**

#### **Town food path**

#### **Stages of village food path**

##### **Land clearing**

##### **Planting**

##### **Weeding**

##### **Harvesting**

##### **Consumption**

#### **Stages of town food path**

##### **Buying**

Transportation

Marketing

Consumption

## LESSON EIGHTEEN

Blocks of food path

Are factors that affect food production.

Drought

Pest and diseases

Floods

Soil erosion

Soil infertility

Poor transport network

Price changes

### ***Prevention of food path blocks***

- Planting trees
- Spraying
- Crop rotation
- Mulching
- Applying fertilizers
- Early planting

## TOPICAL TEST

## LESSON NINETEEN

### **MAJOR BODY ORGANS**

- An organ is a group of tissues that perform the same function.
- A tissue is a group of body cells.
- A cell is the smallest unit of the body

#### Examples of major body organs

Eyes	Brain	Lungs	Tongue
Ears	Stomach	Liver	kidneys
Nose	Heart	Bladder	skin

- Structure / diagram showing location of the major organs.
- Structure of each organ, function, diseases and disorders, care.

#### 1. **Eyes:**

- Eyes are found on the head.

- They are protected by the eye sockets in the skull.
- People have a pair of eyes.

Function: Eyes are used for seeing / sight / vision.

Functions of each part.

- Iris – controls the amount of light entering the eye.
- Pupil - allows light inside the eye

Disorders

- Squints
- Blindness
- Short sightedness
- Long sightedness
- Astigmatism

### **Diseases of eyes.**

- (i) Trachoma
- (ii) River blindness
- (iii) Conjunctivitis (Pink eye / red eyes)
- (iv) Night blindness.

### **Care for the eyes**

- Wash eyes with clean water and soap regularly.
- Avoid looking at bright light directly.
- Do not strain your eyes by reading in dim light.
- Do not hold book too close or far when reading.
- Visit eye clinic for regular check up and tests. - (Oculist optician)

## **LESSON TWENTY**

### **2. Ears**

- Ears are found on the head.
- People have two ears on the head.
- Ears are sense organs for hearing.
- The outer ear (pinna) is used for collecting sound waves.
- The ear also helps in body balance.

### **Structure of the ear**

**NB:** There is wax in the auditory canal to trap dust and other foreign bodies.

### **Function of each part**

Pinna – it collects sound waves

Auditory canal – directs sound waves to the eardrum

Eardrum – produces sound vibration

### **Diseases of the ear**

- Ear cancer
- Otitis media
- Meniere's diseases

### **Disorders of the ear**

- Partial deafness
- Permanent deafness
- Foreign bodies (these prevent sound waves from reaching the ear drum).
- Rapture (tear) of the ear drum

### **Care for ears**

- Wash the ears daily and keep them dry.
- Do not push objects into the ears.
- Do not use sharp objects for cleaning your ears.
- Do not direct your ear to loud sound.

## **LESSON TWENTY ONE**

### **3. The Nose**

- It is located at the front of the face.
- It has two nostrils used for taking air into and out of the body (lungs).
- The nose is the sense organ for smelling.

Front view of the nose

The nose has hairs (cilia) and that traps any foreign bodies like dust, dirt. Or Cilia filters air before it goes to the lungs.

### **Diseases of the nose**

- Influenza (flue)
- **Disorders** – having a foreign object in the nose
- Nose bleeding

### **Care of the nose**

Regular cleaning

Covering the nose in dusty

## LESSON TWENTY ONE

### 1. The Brain

- This is the most important organ of the body.
- The brain is found in the head.
- It is protected by the skull.

Diagram shows the position of the brain

### Uses of the brain

- (i) For thinking.
- (ii) For recall / remembering.
- (iii) For body balance.
- (iv) For storing information.
- (v) For learning / reasoning.

### Diseases of the brain

Epilepsy, cerebral malaria, meningitis etc.

### Care for the brain

- (i) Having enough rest.
- (ii) Avoid drugs like alcohol, marijuana, tobacco.
- (iii) Eat a balanced diet.
- (iv) Having physical exercises to refresh the brain daily.
- (v) Early treatment of malaria.

## LESSON TWENTY TWO

### 2. The stomach

#### Diagram of the stomach

- It is located in the abdomen.
- The stomach is part of the digestive system.
- It is bag like and elastic.

### Uses of the stomach

- The stomach stores food for sometime.
- It digests food (proteins)

- It produces an acid (hydrochloric acid ) which kills germs in the food eaten.
- It produces gastric juice

### **Diseases of the stomach**

Peptic ulcers, Diarrhoea, Dysentery, Cholera, etc

### **Disorders of the stomach**

Constipation, indigestion, vomiting, Diarrhea, etc

### **Care for the stomach**

- Avoid drinking alcohol as it causes wounds on the stomach lining.
- Drink a lot of water to prevent constipation.
- Eat a balanced diet.
- Avoid smoking as this makes ulcers worse.
- Avoid prolonged hunger as it causes ulcers.
- Doing physical exercises.

## **LESSON TWENTY THREE**

### **3. Lungs**

- Lungs are found in the chest.
- They are protected by the rib cage.
- People have two lungs.

Diagram showing the lungs

### **Uses of lungs**

- Lungs are used for breathing / respiration .
- They pass out carbondioxide and excess water vapour. (excretion )

### **Diseases of lungs**

Tuberculosis, Diphtheria, whooping cough (pertussis), Pneumonia, influenza (flue), Bronchitis, lungcancer, Emphysema, Asthma, etc.

### **Care for the lungs**

- Avoid tobacco smoking.
- Avoid dusty places.
- Avoid crowded places.
- Take infants for immunization against TB, whooping cough and diphtheria.
- Do regular physical exercises.
- Isolate people with tuberculosis.
- feeding on a balanced diet

## **LESSON TWENTY FOUR**

### **4. The liver**



It is located in the upper part of the abdomen.

### **Structure of the liver.**

The gall bladder stores bile.

### **Uses of the liver**

- The liver regulates body sugar.
- It produces bile.
- It stores iron, glycogen and vitamin A and D.
- It dilutes poisonous substances from blood.
- It produces body heat

### **Diseases of the liver**

- Hepatitis, liver cancer, cirrhosis (liver disease)

### **Care for the liver**

- Avoid drinking too much alcohol (it causes cirrhosis).
- Have a balanced diet.
- Boil water for drinking to avoid hepatitis.

## **LESSON TWENTY FIVE**

### **5. The Heart**

- The heart is found in the chest cavity.
- It is protected from physical damage by the ribcage.
- A person has one heart.

### **Use:**

The heart pumps blood to all parts of the body.

### **Structure of the heart**

The heart is made up of a tough muscle called **Cardiac muscle**.

### **Diseases of the heart**

- Hypertension (High blood pressure)
- Heart attack (coronary thrombosis)
- Low blood pressure
- Heart failure

### **Care for the heart**

- Doing regular physical exercises.
- Eating a balanced diet.
- Avoid smoking to avoid blood clots in the coronary artery.
- Having regular medical check up

## **LESSON TWENTY FIVE**

### **6. Kidneys and the urinary bladder**

The kidneys and urinary bladder are found in the lower abdomen

### **Uses**

#### **(a) Kidney**

- It filters blood (it removes urea excess water and mineral salts from blood.)

#### **(b) Urinary bladder**

- It stores urine before it is passed out.

#### **(c) Ureter**

- Carries urine from kidneys to the urinary bladder.

(d) **Urethra**

- Passes urine out of the urinary bladder

**Care for the kidney and urinary bladder**

- Avoid drinking alcohol.
- Do not hold urine for a long time in the bladder.
- Drink plenty of water.
- Drinking clean boiled water

**Diseases of the kidney / urinary bladder.**

- Kidney failure, kidney stones, Bilharzia

**7. The Tongue**

- It is found in the mouth.

**Uses**

- It is a sense organ for tasting.
- It rolls food into a bolus and pushes it to the gullet for swallowing.
- It is used in talking

**Disorders of the tongue**

Burns, cuts, blisters, bites , loss of tasting

**Care for the tongue**

- Do not eat hot food. This may damage the taste buds.
- Do not put sharp objects in the mouth.
- Avoid too much smoking

**LESSON TWENTY SIX**

**8. The skin**

This is the largest organ of the body found outside the body.

**Uses of the skin**

- It removes sweat from the body.
- It regulates body temperature (i.e. through sweating and growth of goose pimples when it is hot and cold respectively).
- The skin prevents germs from entering our bodies.
- It protects our muscles from damage.
- It is a sense organ for feeling

**Diseases and disorders of the skin.**

Diseases	Disorders
Leprosy	Cuts
Ringworm	Blisters
Scabies	Skin rash

Boils Eczema Impetigo	Pimples (acne) Dryness / cracks
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### **Care for the skin.**

- Bathing regularly using clean water and soap.
- Apply Vaseline to keep the skin soft.
- Do not share under wears, towels, combs with infected people.
- Feeding on the foods that contain vitamin C

### **TOPICAL REVISION QUESTIONS – BODY ORGANS**

1. Name any four major organs in our bodies.
2. Identify the sense organs for;-
  - (a) Hearing
  - (b) Tasting
  - (c) Sight / Vision / Seeing
  - (d) Touch / Feeling
  - (e) Smelling.
3. Nose is to man as ..... is to cockroaches.
4. Write any one cause of deafness.
5. How useful are the hairs found in the nose?
6. Study the diagram of the ear below and answer the questions about it.

- (a) Name part x on the human ear.
  - (b) How useful is the wax found in part S?
7. Mention one disease which attacks our eyes.
8. What good health practice should be carried every morning to keep our eyes clean?
9. Mention one way of keeping the skin healthy.
10. Which organ is called the “pump of the body”.
11. In which part of the body is the brain protected?
12. State two functions of the brain.
13. Why is it important to take a rest?
14. How many pairs of lungs does man have?
15. Name part S on the diagram of lungs below:-
16. Mention one immunisable disease which attacks the lungs.
17. Why are physical exercises good to our bodies?

18. Which body organ produces bile?
19. Draw a diagram showing the stomach.
20. How can we keep the stomach in proper health?
21. Which body organ removes wastes from blood?
22. Why is it bad to hold urine in the urinary bladder for a long time?
23. Name one organ found in the
  - (a) Head
  - (b) Chest cavity.
  - (c) Abdomen

## **TWENTY SEVEN**

### **HUMAN TEETH**

A tooth is a hard bone like structure in vertebrates used for breaking food into smaller pieces.

#### **Sets of Teeth**

- (i) Milk teeth (Deciduous teeth) / primary set
- (ii) Permanent teeth / secondary set

#### **Milk teeth**

They are 20 in number and the first to grow in young children. Milk teeth start growing from the age of 6 months and at the age of around 7 years.

These teeth begin to fall out and are replaced by the permanent teeth.

#### **Permanent teeth**

This is the second and final set of teeth in the mammals growth.

A person starts developing permanent teeth at 13 years.

An adult normal person has 32 permanent teeth consisting of incisors, canines, premolars and molars.

## **LESSON TWENTY EIGHT**

### **Types of teeth**

- Incisors
- Canines
- Premolars
- Molars.

#### **Incisors:**

They are used for cutting and biting food.

They are chisel shaped.

They are the first teeth to grow.

### Diagram of an incisor.

### Canines

They are used for tearing food.

Canines are sharp and pointed.

### Diagram of a canine

## **LESSON TWENTY EIGHT**

### Premolars

Premolars are used for grinding, chewing and crushing food.

They are broad, blunt and flat ridged.

### Diagram of a premolar.

### Molars

Molars are used for grinding chewing and crushing food.

They are broad, blunt and flat ridged.

### Diagram of a Molar (both upper and lower jaws )

**Dental formula** : Is the number and types of teeth a person has

Is the arrangement of teeth in the jaws.

	Incisors	Canines	Premolars	Total	Molars
Lower Jaw	4	2	4	16	6
Upper Jaw	4	2	4	16	6
Total	8	4	8	32	12

Definition : Is the arrangement of teeth in jaws

## **LESSON TWENTY NINE**

### REGIONS OF A TOOTH

### **Illustration**

1. Crown
2. Root
3. Neck

### **Parts of a tooth (canine and molar)**

- Enamel
- Dentine
- Pulp cavity
- Blood capillaries / vessels / sensory nerves
- Gum
- Cement
- Jaw

### **Functions of parts of the tooth**

#### **Enamel:**

- The hardest part of the tooth.
- It is the hardest substance in the body made of calcium of phosphorus.
- Enamel prevents wear and tear of the tooth.
- It protects the inner parts

#### **Dentine:**

- It keeps replacing the enamel as it may wear off due to friction.

#### **Pulp cavity**

- It is the most sensitive part of the tooth.
- It contains blood vessels and sensory nerves.

#### **Blood vessels**

The supply blood to the tooth

#### **Sensory nerves**

They are sensitive to heat, pain and cold.

The tooth begins pain when bacteria destroy the pulp cavity.

### **Cement**

- It fixes the tooth in position
- It protects the tooth.

### **Gum**

- Gives extra support to the tooth in the jaw bone.

Jaw bone

- Holds the tooth in one position.
- Protects the tooth

## **LESSON THIRTY**

### **Diseases of the tooth**

#### **Tooth decay (Dental caries)**

It is caused by bacteria.

Bacteria acts on sugar and starch remains on the teeth producing lactic acid that wears and tears the enamel and makes a hole in the dentine and pulp cavity.

Pain begins when the bacteria destroys the pulp cavity.

**NOTE:** Dental amalgam (cement) can be used to fill the holes made on the teeth.

### **Plaque**

A brownish substance forms on the outer surface of the teeth

### **Disorder of the teeth**

Cracked teeth

Improper growth of teeth

Broken teeth

## **3. Periodontal disease**

- This is an infection of the gums and tooth sockets
- It is caused when plaque is neglected

## **4. Gingivitis**

- It is a gum disease caused by bacteria
- It leads to the swelling and bleeding of the gum.
- It also causes bad smell from the mouth

Improper growth of teeth

### **a) Definition**



this is when teeth grow in a wrong way.

**b) Causes of improper growth of teeth**

- Dental accident
- Lip biting
- Early loss of milk teeth
- Finger nail biting
- sucking fingers

**c) Dangers of improper growth of teeth.**

- Difficulty in chewing
- Poor facial appearance
- Speech problems

**Dental Hygiene or oral health**

Is the way of keeping our teeth free from germs.

**LESSON THIRTY ONE**

**Care for our teeth (Dental Hygiene)**

- Brush the teeth after every meal.
- Avoid drinking very hot and cold things.
- Avoid eating too much sweets.
- Rinse your mouth with water and salt after every meal.
- Eat plenty of fruits and vegetables.
- Visit a dentist regularly for dental check ups.
- Eat a balanced diet.
- Dental flossing

**Things used in caring for our teeth**

- Tooth brush - Clean water
- Tooth paste - Small sticks
- Dental floss
- Charcoal
- Tooth pick
- Ash etc.

**How to brush our teeth**

- Brushing the teeth should be up and down movement of the tooth brush but not side ways to avoid damaging the gum

**Reasons why we brush our teeth**

- Prevent tooth decay
- Prevent bad breath.
- To remove food remains (microbes)

## **LESSON THITY TWO**

### **SANITATION**

Sanitation is the general cleanliness of our environment.

Sanitation is a way of keeping our environment clean.

### **Elements of sanitation / activities under sanitation**

- Sweeping the compound, houses etc.
- Mopping houses, classrooms etc.
- Slashing bushes around our homes, school, road sides, water sources.
- Picking and burning rubbish.
- Proper disposal of garbage or rubbish.
- Draining stagnant water around our homes and schools.
- Dusting tables and chairs.
- Removing cobwebs from the kitchen latrines and houses.
- Digging water channels along the roads, in the schools and home compounds.
- Removing broken bottles from the compound
- Proper disposal of faeces

### **Importance of sanitation**

- Prevents the spread of germs.
- Promotes good health in community.
- It makes a home clean and attractive
- Prevents bad smell

## **LESSON THIRTY THREE**

### **Items used in keeping proper sanitation**

- Brooms
- Rake
- Rag / mop
- Water
- Soap
- Slasher
- Drier
- Scrubber
- Rubbish pit

- Spade
- Bins
- Etc

### **Elements of a good home**

- A kitchen
- A bathroom
- A rubbish pit
- A plate stand / rack
- A toilet / latrine
- A well ventilated house

### **Qualities of a good home**

- It should have a toilet
- It should have a bathroom
- It should have a kitchen
- It should have a plate stand
- It should have a rubbish pit

### **Dangers of poor sanitation**

- It leads to the spread of diarrheal disease
- It causes bad smell
- It increases on the expenditure for health services.
- It leads to isolation

## **LESSON THITY FOUR**

### **Germs and diseases**

A germ is a small / tiny living organism that cause diseases.

Germ are too small to be seen with naked eyes. They are seen using a microscope

### **Types of germs**

These include;

Virus

Bacteria

Protozoa

Fungi

### **Where germs are found**

#### **Germs are found in;**

- Faeces and Urine
- Contaminated water

- Soil
- Air
- On dirty clothes
- On dirty beddings
- Under dirty finger nails.
- Blood
- Inside the body
- On our bodies
- On dirty food
- On dead bodies

#### **How germs enter our bodies**

- Through eating contaminated food.
- Through the nose when we breathe in contaminated air.
- Through open wounds and cuts
- Through skin contact with infected persons.
- Through sharing clothes with an infected person.
- Through vectors.

#### **LESSON THIRTY FIVE**

##### **THE GERM PATH (4FS)**

These stands for

- (i) Faeces
- (ii) Flies
- (iii) Food
- (iv) Fingers

N.B An instrument used see germs is called microscope.

#### **Control of the spreading of germs**

- Boil water for drinking.
- Wash hands before eating food.
- Wash hands after visiting the latrine or toilet.
- Destroy the breeding places of vectors.
- Kill the vectors by spraying.
- Cover food.
- Have proper disposal of garbage.
- Have children immunized.
- Covering wounds and cuts

#### **LESSON THIRTY SIX**

##### **ROTTING / DECAY**

- Rotting is the breakdown of dead matter by bacteria.
- It requires warmth, darkness and moisture.

### **Importance of rotting / decay**

- Rotting produces humus from dead organic matter.
- It destroys garbage heaps.
- It destroys faeces in latrines and sewage systems.

### **Dangers of rotting**

- Rotting produces a bad smell.
- Rotting is a source of germs.
- Rotting causes wounds to be septic.
- Rotting attracts some vectors

### **Common diseases caused by germs**

<b>Diseases</b>	<b>Causative germ</b>
Trachoma	Virus
Red eyes / conjunctivitis	Bacteria
Cholera	Bacteria
Typhoid	Bacteria
Dysentery	Bacteria / amoeba
Diarrhoea	Bacteria / virus
Ring worm	Fungus
Chicken pox	Virus
Diphtheria	Bacteria
Pneumonia	Bacteria / virus
Tetanus	Bacteria
Measles	Virus
Polio	Virus
Whooping cough (Pertussis)	Bacteria
Scabies	Itch mites
Malaria	Plasmodium (Protozoa)
Rabies	Virus
Typhus fever	Bacteria

### **TOPICAL REVISION QUESTIONS**

1. What do you understand by term Sanitation?
2. Mention any five activities involved under sanitation.
3. Suggest any two importance of sanitation to a community.

4. Give any four items used in keeping proper sanitation.
5. What is a germ?
6. Outline any four types of teeth.
7. How can germs spread from one person to another? (Give three)
8. Suggest any three places where we can find germs.
9. Write 4Fs in their correct order.
10. Mention any two ways of controlling the spread of germs in our environment.
11. Define rotting?
12. Give any two importances of rotting to our environment.
13. Mention two dangers of rotting to our environment.
14. Which type of germ causes the following diseases  
(a) Trachoma                      (b)