

Science, Agricultural Science, Home Economics, Physical Health Education, Social Studies

General PaperNPSE

March 2021



















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TEACHERS' GUIDE

Dear Teacher,

This work was prepared by the Teaching Service Commission (TSC) for the Primary School pupils of class 6. The notes are useful for pupils who will be attempting the National Primary School Examination (NPSE) and the aim is to improve learning achievement for weak or underperforming schools at the NPSE nationwide.

The General Paper of the NPSE comprises of five subjects namely:

Agricultural Science Home Economics Physical Health Education Social Studies

There are thirty (30) teaching units in this manual and each unit has a detailed content, which if effectively used as a manual tool by you, will help the pupils to meet their required learning objectives. You are therefore expected to make use of this material in the best interest of the pupils following the guidelines below:

You are expected to teach the lesson in simple English using local examples and materials for an achievable learning outcome.

You are expected to teach the definitions, nature and scope of all the integrated subjects in this manual.

Ensure that, you use concrete learning scenarios and materials as examples to enhance learning outcomes.

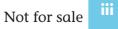
Recap lesson exercises to test memorization, application and adaptation of concepts.

Ensure that regular assessment activities, to arouse the interest of the pupils, are carried out at the end of each unit - give class work, group work, make the class as interactive as you can, home practice/work on each topic covered, tests and examinations.

Help the pupils with instructive quide on the nature of the NPSE General paper so that pupils will have a fore-knowledge of the structure and rubrics of the examination and the nature of questions.









ACKNOWLEDGEMENTS

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Our thanks to the following authors for their academic support

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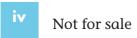






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HOME ECONOMICS

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LEARNING OUTCOMES

In this unit, pupils will learn about:

- Definition of Home Economics.
- Branches of Home Economics.
- Food and Nutrition.

DEFINITION:

1. Home Economics is a field of study that deals with the relationship between individuals, families, community and the environment in which they live.

Branches of Home Economics

Home Economics is divided into three (3) main branches namely:

- a. Food and Nutrition
- b. Clothing and Textile
- c. Home Management

Food and Nutrition:

Food is anything solid or liquid which when taken into the body provides energy and heat, promotes growth, protects and regulate body processes.

CLASSES OF FOOD (Nutrients in balanced diet)

Food can be divided into six (6) groups:

- 1. Carbohydrate (e.g. maize,yam,garri,potatoes and millet)
- 2. Protein (from beans, dairy, eggs, soy products and legumes)
- 3. Vitamins (from fruits and vegetables)
- 4. Mineral Salts (from animal and vegetable sources)







- 5. Fat and Oil (etc.) from fish and avocado.
- 6. Water

REASONS FOR EATING FOOD:

The following are some of the reasons for eating food:

- 1. We eat food to get energy.
- 2. We eat food to grow.
- 3. We eat food to protect us from diseases and germs.
- 4. We eat food to nourish our body.
- 5. We eat food to replace our worn out tissues.
- 6. We eat food to be healthy.
- 7. We eat food to fight against anti-bodies.
- 8. We eat food to strengthen our bones and teeth.

METHODS OF COOKING FOOD:

There are two (2) main methods of cooking food namely:

- 1. Dry method Cooking.
- 2. Wet Method Cooking.
- 3. **Dry Method:** In this method of cooking, heat is applied directly to the food at a high temperature e.g. baking, roasting, grilling and toasting.
- 4. **Wet Method:** In this method of cooking, heat is applied to the food through liquid or water e.g. Par-boiling (partial boiling), deep frying, shallow frying, steaming, and boiling.

Definition of Nutrition:

Nutrition is the study of food, the food value it contains and the ways in which it is used in the body.











Carbohydrates:

It includes sugar or starchy foods e.g. Yam, cassava, sweet potato rice, foo-foo and sugarcane.

Proteins:

Build and repair worn out body tissues e.g. meat, fish beans, milk, cheese, nuts, seed etc.

Fat and Oils:

They provide the body with heat and energy especially during the cold weather. Examples include margarine, butter, palm oil, cooking oil, groundnut oil, seed oil, coconut oil, olive oil etc.

Vitamins:

Are chemical substances that are found in food. Protects the body from diseases and germs. Examples are vitamin rich foods - pear, mango, oranges and pawpaw.

Mineral Salt:

It helps in the maintenance of body tissue, muscles and bones. It also prevents the body from anaemia. Examples include green leaves, vegetables such as leaves, garden eggs, carrots, lettuce and sea food and iodized salt.

Water:

This is necessary for the proper functioning of the body and in ensuring a healthy skin. It also helps in digestion, excretion, urination, tear formation and absorption.

A major portion of blood is water. Blood is responsible for the transportation of nutrients (food value) and oxygen to organs in the body. Examples include fresh water, vegetables, fruits such as pineapple, orange, and rose apple.









SUMMARY QUESTIONS/ACTIVITIES

- 1. What is the meaning of Home Economics?
- 2. What are the branches of Home Economics?
- 3. Give five reasons for eating food.
- 4. State two methods of cooking food
- 5. Give the classes of food.
- 6. Give two (2) examples of each class of food.







UNIT 2

THE IMPORTANCE OF THE CLASSES OF FOOD

LEARNING OUTCOMES

In this unit, pupils will learn about:

- Groups of food
- Balanced diet
- Food preservation
- Dietary needs of different groups of people
- Health services
- Primary health care

FOOD GROUPS:

The six (6) classes of food (nutrients) can be grouped into three (3) namely:

- i. Energy-giving food
- ii. Body-building food
- iii. Protective food

Energy-Giving Foods:

These are foods that provide heat and energy for the body e.g. carbohydrates, fats and oils, and roughages (water).

Body-Building Foods:

These foods help the body to grow. They also help to repair worn out body tissues e.g. proteins.

Protective Foods:

These are foods that help to protect the body from diseases and germs e.g. vitamins, minerals and roughages.

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BALANCED DIET/COMPLETE DIET:

A balanced or complete diet is a diet that contains all the classes of food nutrients (food values) in their correct amount. It is the diet that gives the body the right amount of every food value it needs. The percentage of food value in a balance diet is given bellow:

- Carbohydrate 55%
- Proteins 20%
- Fat and oil 15%
- Water, mineral & Vitamins 10%

Total ---- 100 %

Effects of Not Eating a Balanced Diet

When one fails to have a balanced diet, the following will happen to the body:

- Poor health such as malnutrition and kwashiorkor.
- Vitamin deficiency e.g. vitamin C (Scurvy)
- Much spending on buying medicines and foods to restore the body to good health.

FOOD PRESERVATION:

Simply means preventing food from spoilage or going bad.

Reasons for Food Preservation:

The following are some of the reasons for food preservation:

- 1. To prevent it from spoilage or going bad.
- 2. To provide a store of food for later use.
- 3. To make use of food when it is cheap and plentiful.
- 4. To have a variety of diet.









Aims of Food Preservation:

- 1. To keep as much of the quality of the fresh food as possible.
- 2. To stop very small germs from spoiling the food.

METHODS OF FOOD PRESERVATION:

The following are some of the methods of food preservation:

- i. Salting
- ii. Smoking
- iii. Fermentation
- iv. Freezing/Refrigeration
- v. Drying/dehydration
- vi. Pasteurization
- vii. Addition of chemicals
- viii. Irradiation
- ix. Canning/sterilization

Food Spoilage: This is when the food deteriorates (go bad) or becomes unfit for eating.

Causes of Food Spoilage:

Food spoilage is caused by the following:

- 1. Micro- organism (bacteria, mold and yeasts)
- 2. Insects
- 3. Natural decay within the food itself
- 4. Man
- 5. Food not properly cooked

Food Protection:

This simply means protecting food from insects, flies or germs from entering it.



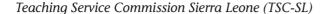








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DIETARY NEEDS OF DIFFERENT GROUPS OF PEOPLE:

The following are different groups of people who need different diets:

- a. Babies
- b. Children
- c. Adults
- d. Old people
- e. Very active workers/Industry workers
- f. Light workers
- g. Pregnant and nursing mothers
- h. Convalescents
- Babies: Breast feeding is good for babies even if it is only for a short period of time. Apart from breast feeding babies should be given extra vitamins such as A, D, C and iron.
- Children: They need all the major foods in a balanced diet.
- Old People: The majority of elderly people need very little change to the diet they have been eating throughout their adult lives but fats and sugar should be reduced.
- Very active workers: People in this group should be given meals that provide them with sufficient energy.
- Light workers: This group of people should not be given heavy diets. Instead, they should eat light food so that there will not be an increase in their weight. For example they should eat small amounts of cooked rice, yoghurt, tomatoes, eggs, and fresh fruits.
- Pregnant and Nursing Mothers: Their diet should provide sufficient nutrients to meet the needs of the growing fetus or young baby. Iron is also necessary for the red blood cells of the mother and the body for oxygen to produce energy. Calcium, fluoride, vitamin B complex, vitamin A and B are also good for pregnant women and nursing mothers.









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- **Convalescents:** These are people who are recovering from sickness and need strength. Convalescents are also known as a sick persons. They need calcium, milk, proteins, vitamins, vegetables to recover.
- **Health Service:** This is a service provided by trained and qualified health workers. The health service in the communities include the following:
 - i. Hospitals
 - ii. Health Clinic
 - iii. Family Planning Service
 - iv. School medical care
 - v. Health Centers
 - vi. Dental Service
 - vii. Ear, Nose and Throat service (ENT)

IMPORTANCE OF HEALTH SERVICES:

The following are some of the important benefits of health services:

- 1. Healthier living
- 2. Cleaner environment
- 3. Reduction in death rate
- 4. Reduction in the occurrence of disease outbreaks
- 5. Increase in life span
- 6. Better sanitation

Primary Health Care: This is simply the basic medical care given to human beings and domestic animals by doctors and nurses so as to make them live longer. Primary health care can be divided into three groups (3) namely

- i. Health extension work in the community
- ii. Education
- iii. Training of maternal and child health aids







Health extension work provides the following services:

- 1. Medical service to people who live in rural areas or villages where there is no medical centre.
- 2. Assists healthy living.
- 3. Helps to reduce infant death rate.
- 4. Helps to reduce the outbreak of diseases like cholera and measles.
- 5. Reduces contamination of the environment as a result of continuous talks, lectures, protests and radio discussions.

Trainers of Maternal Aids and Child Health Aids: The traditional birth attendants or (TBA) assist in the delivery of babies in homes. Child health aids look after children in the hospitals.

SUMMARY QUESTION/ACTIVITIES

- 1. List the main food groups.
- 2. What will happen to you if you fail to eat a balanced diet?
- 3. Give four (4) reasons for preserving food.
- 4. Give three (3) causes of food spoilage.
- 5. What type of food does a pregnant woman need?
- 6. List the importance of health services.









FABRICS AND STAINS

LEARNING OUTCOMES

In this unit, pupils will learn about:

- Fabrics
- Stains

FABRICS:

These are made up of fibres which are generally prepared to form yarns or threads. The fibres are woven into fabrics. E.g. Cotton, linen, wool, polyester etc.

Fibres: These are materials used to make yarns or threads. All fabrics are made up of fibres.

STAINS:

This is when a material or dress becomes discolored or soiled e.g. Palm oil stains on a white dress or material. Stain can make a person feel ashamed or shy in public places, therefore one has to be very careful whenever you are handling or eating food.

TYPES OF STAINS:

The different types of stains include the following:

- i. Ink
- ii. Tea
- iii. Palm oil
- iv. Rust or iron mould
- v. Mildew





Methods of Removing Stains: The methods of removing stains depend on the type of stains which is on the dress or material. The table bellow shows how stainss can be removed.

STAIN	STAIN REMOVAL AGENT	METHOD OF REMOVING STAIN
Ink	Lime, cooking salt and watermelon juice	Apply lime and salt to the stained area. Wash in soapy water by rubbing.
Теа	Hot water	Pour hot water over stains and apply soap on stained area. Wash by rubbing and squeezing.
Palm Oil	Kerosene, water and soap	Apply kerosene on stains and put in the sun. Wash in warm soapy water by rubbing.
Rust Or Iron Mould	Lime, cooking salt and water	Apply lime and salt on stains and put in the sun and then wash with water.
Mildew	Paw-paw leaves, water and soap	Apply crushed paw-paw leaves and put stained article in the sun. When the stains has been removed, apply soap and wash in cold water.

SUMMARY QUESTION/ACTIVITIES

- 1. What are fabrics?
- 2. List four types of stains.
- 3. List three stains removal agents.
- 4. Demonstrate one way of removing a stains.









BABY CARE AND SEWING

LEARNING OUTCOMES

In this unit, pupils will learn about:

- Preparing for the baby
- Clothing for a baby
- The sewing machine

PREPARING FOR THE BABY:

Pregnancy: Is when a matured girl or woman has an unborn baby developing in the womb called foetus. All expected or pregnant mothers should make every effort to maintain good health. It can be done by doing the following:

- 1. Develop good eating habits.
- 2. Visiting an anti- natal clinic regularly.
- 3. Put aside all worries and fears relating to having the baby.
- 4. Have plenty of rest and sleep for about 8-9 hours daily.
- 5. Stay calm and active until the end of the waiting period.
- 6. Avoid wearing or putting on tight girdles and brassieres as they affect blood circulation in the body, which may cause swelling craps or general discomfort. The pregnant woman may decide whether the baby is delivered in the hospital or at home. Some basic items need to be prepared by her. Note that child care begins at conception (the time when the woman becomes pregnant).

CLOTHING FOR A BABY:

Babies grow fast so their clothes should be only the necessary minimum. Clothing worn by babies should be light and generally cool, but during cold weather a woollen jumper should be added especially when taking the baby out.







The clothes for babies include the following:

- Napkins/Diapers, day clothes, night gowns
- Pairs of water proof pants
- Wrappers
- Shawl (large piece of material wrapped round a baby)
- Pairs of booties
- Roles of crepe bandage
- Packets of safety pins

Care of a baby's clothes: Taking care of a baby's clothes include the following:

- Washing: Soak in warm water with bleach especially the napkin. The baby's clothes should be properly rubbed with hand. Rinse and squeeze them properly.
- Drying: After rinsing and squeezing, they should be hanged on a clean wire or rope. Peg them properly so that they do not fall.
- Ironing: A baby's clothes generally needs light heat when ironing. They should be neatly folded.
- Storing: The clothes should be stored in the baby's suitcase making sure that they are free from pests such as cockroaches and ants.

Reasons for drying and ironing baby's clothes

- i. To prevent them from germs.
- ii. To prevent dampness especially when they are not properly dried.
- iii. To prevent the baby from catching a cold and other infectious diseases.

Suitable fabrics for a baby's clothes include:

- i. Cotton
- ii. Wool







THE SEWING MACHINE

This is a machine used for joining and designing fabrics. It is expensive so, it must be handled with care.

Some important parts of a sewing machine

- Upper and lower tension regulators or tension disc
- Stitch regulator
- Stop motion screw
- Reverse lever or thread-take-up lever

Proper use of the sewing machine: Proper use of a sewing machine depends on the following:

- Selection of the correct needle size and corresponding thread. They should be of the same size.
- Wind and fix bobbins correctly.
- Correct regulation of upper and lower tensions.
- Cover the machine after use to prevent dust.
- Oil the machine after use.

Common faults when sewing:

Some common faults during sewing include:

- a. Thread keeps breaking.
- b. Loops or folds appearing underneath and above the material and also missing stitches.
- c. Machine needle continuously breaking.
- d. Incorrect needle size and thread.
- e. Stitches do not interlock (machine not sewing smoothly).
- f. Machine makes a lot of noise.









How to correct faults when sewing.

To correct fault:

- 'a' make sure that the thread in both needle and bobbin are of the same thickness. Loosen tension disc or rewind bobbin.
- 'b' make sure that the threading is correct both in the needle and the bobbin.
- 'c' make sure that you set the needle correctly. Use correct needle size.
- 'd' make sure that the size of the needle and thread are correct for the material.
- 'e' rethread the machine.
- 'f' oil the moving parts from time to time. Make sure you tighten loose ends.

Proper care of a sewing machine: The following are some ways of taking proper care of a sewing machine:

- Regular cleaning of the machine.
- Regular oiling of the machine.
- Appropriate storage of the machine.

IMPORTANCE OF PROPER CARE OF A SEWING MACHINE

- It will last longer.
- Less money will be spent in repairing it.
- There is a possibility of selling it at a higher price or at the same price as it was bought.
- Neat dress will be sewn (thus give the user good will)

Types of needle used in sewing: The following types of needles are used in sewing:

- Straight needles
- Circular needles
- Curved needles
- Darners needles
- Sharp needles

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Note that the types/sizes of needle to select depend on the type of material you may want to sew.

Stitch: A stitch is the passing of a threaded needle in and out of a fabric to turn it into a useful article. The mark that they leave in the fabric is known as a stitch.

Types of stitches: There are two (2) main types of stitches, which are temporary stiches and permanent stitches.

Temporary Stitches: These are stitches that hold two or more layers of fabrics (materials) together. They are used for a short while until they are permanently stitched together. There are four (4) types of temporary stitches namely:

- a. Even tacking
- b. Uneven tacking
- c. Diagonal tacking
- d. Tailor's tacking

Permanent Stitches: Used to join two pieces of materials together permanently. Examples of permanent stitches are:

- Running stitches
- Buck stitches
- Run and fell stitches
- Hem stitches
- Decorative stitches

SUMMARY QUESTIONS/ACTIVITIES

- 1. State the ways of taking care of baby clothes.
- 2. Why do baby clothes need to be dried and ironed?
- 3. Name four important parts of a sewing machine.
- 4. State four common faults of a sewing machine.
- 5. Name the types of needles.
- 6. Name the types of stitches.











LEARNING OUTCOMES

In this unit, pupils will learn about::

- Soap making
- Starch making
- Home floor polish
- Puberty
- Personal hygiene
- Immunisation

SOAP MAKING:

Soap making is the process of combining various substances to produce detergents.

Ingredients Used In Making Soap

The following are the ingredients used in making soap:

- Palm oil
- Caustic soda(lye)
- Water
- Optimal use blue, perfume (few drops)

How the soap is made:

Soap making is a chemical reaction between caustic soda (lye) and oil.

- 1. Mix water with lye and set aside to cool.
- 2. Heat to melt the oil and set aside to cool.
- 3. Blend lye, water and oil (plus blue and perfume) to form a soap 'batter'.
- 4. Pour into mold and allow to harden for a day.
- 5. Turn out the mold and cut into bars and let them set or cure for 2-3 weeks.

Starch: Starch is a stiffening agent used to stiffen cloths after laundry.

The following ingredients are used to make starch:

Rice

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UNIT 5

SOAP MAKING AND CHARACTERISTICS OF ADOLESCENTS

- Starchy food/starchy tubers
- Water

STARCH MAKING:

Starch is made by crushing or grinding starch containing tubers or seeds and mixing the pulp with water. The paste is freed from impurities and then dried to obtain starch.

HOME FLOOR POLISH:

Is used to polish floors at home after sweeping. House floor polish is made of candle wax and kerosene.

PUBERTY:

This is the period in life when a boy or a girl is mature. A period when they are capable of producing children. It starts between childhood and adulthood which makes up adolescence or grown- up.

Changes or visible features or clear signs and age range of puberty in boys and girls

BOY

- Growth of hair on the face and body.
- Deepening of the voice.
- An increase in the size of the penis.
- An increase in muscle development.
- The appearance of underarm and pubic hair near the sexual organs

Note this will be between about the age of 14 and 18.









GIRLS

- Gradual widening or development of the hip.
- Step by step development of the breasts.
- Small increase in height.
- The appearance of under arm and pubic hair near the sexual organs. These changes take place between the ages of 12 14.

Effects of These Changes in Boys and Girls

- An increase interest in their sexuality.
- They strive to have self -control.
- There is an increasing concern of ideas such as politics.
- There is a possibility of seeing themselves as separate or alone and try to gain self-understanding.

Cleanliness at Puberty: Boys and girls need to always be neat, clean, and tidy. They should bath regularly, at least twice a day, and especially girls during their menstrual period.

If they fail to pay attention to their health especially the cleanliness of their body they will smell. Cleanliness at the puberty stage is very important.

PERSONAL HYGIENE:

This is the regular or frequent cleaning of the body and your environment.

Reasons for observing personal hygiene

- It protects one from bacteria, germs, and illness.
- It makes one easily accepted by others.
- It helps us to be mentally and physically fit.

Personal hygiene habits

- Bathe regularly.
- Trim your nails.
- Brush your teeth after every meal.

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UNIT 5: SOAP MAKING AND CHARACTERISTICS OF ADOLESCENTS

- Wash your hands before and after eating.
- Get plenty of rest.
- Always cover your food when not eating.
- Clean your surrounding regularly.

Girl's Pregnancy: This is when a young girl has an unborn or foetus developing in the uterus or womb.

Pregnancy normally last forty (40) weeks or ten (10) months or about thirty – six (36) weeks or nine months starting from the first day of the last menstrual period.

IMMUNISATION:

This is also known as vaccination. It is a process that protects the baby against an infectious disease. There are six (6) diseases in the tropics that can spread, easily.

- i. Tuberculosis
- ii. Whooping cough
- iii. Poliomyelitis
- iv. Diphtheria
- v. Tetanus
- vi. Measles

SUMMARY QUESTION/ACTIVITIES

- 1. List five ingredients that are used to make soap.
- 2. Name four features of puberty stage in boys.
- 3. Give two reasons for personal hygiene.
- 4. List five personal hygiene habits.
- 5. What is the meaning of immunisation?
- 6. Name five common diseases that you have learnt.













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PHYSICAL HEALTH EDUCATION

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PHYSICAL HEALTH EDUCATION 1

LEARNING OUTCOMES

In this unit, pupils will learn about:

- Definition of Physical Health Education
- Importance of Physical Health Education
- Games

DEFINITION:

Physical Health Education is instruction in the development and care of the body ranging from simple exercises to a course of study providing training in hygiene, gymnastics and the performance and management of athletics games.

Health:

It is defined as the overall mental and physical state of an individual.

Wellness:

Refers to the state of being in an optional mental and physical health.

IMPORTANCE OF PHYSICAL HEALTH EDUCATION:

The following are some of the important benefits of physical health education:

- Helps students stay physically active.
- Helps to build teamwork and other social skills.
- Improves focus in academic performance.
- Develops interest in different types of physical activities.
- Promotes health and wellness.









GAMES:

A game is a form of play with a set of rules such as tennis, football, chess, volleyball and cricket.

Games are grouped into two (2) main types namely:

(i). Major games

(ii). Minor games.

Major games: These are games that are played at national and international levels with standard rules and regulations such as Football, Volleyball, Basketball, cricket and baseball.

Minor games: These are games that are played at the local level and they do not have standard rules and regulations. Examples are ludo, stopper game, balance ball, snake and ladders and hide and seek.

SUMMARY QUESTIONS/ACTIVITIES

- 1. What is physical health education?
- 2. What is health?
- 3. State three reasons why physical exercise is important.
- 4. What is a game?
- 5. State the types of games that you have learnt about.
- 6. List three examples of each of the games you have learnt.









LEARNING OUTCOMES

In this unit, pupils will learn about nutrition.

Nutrition: This is the study of food, food values and the ways in which foods are used by the body, for body building.

The main food nutrients are as follows:

- i. Energy-giving foods (Carbohydrates, Fats and Oil, Water)
- ii. Body-building foods (Proteins)
- iii. Protective foods (Vitamins and minerals)

Food: Food is anything that is taken into the body to provide it with the necessary nutrients that enables it to grow. Food replaces damaged parts of the body for it to function in a normal way.

Balanced diet: This is a diet that contains all the food nutrients in the correct proportions.

Importance of a balanced diet:

- It prevents deficiency of diseases in children.
- It enables the body to carry out all the necessary functions and processes.
- It helps growth.
- It helps replace damaged or worn-out body cells.
- It prevents malnutrition.
- It maintains health and fitness.

Importance of nutrition:

- It helps us to know the types of food to eat and value of the food we eat.
- It helps us to know what food value the food we eat contains.









- It helps us to know what types of food sick people should eat.
- It helps us to know what types of food people should eat at different stages
 of growth for example, during infancy, early childhood, childhood and
 adulthood.

Percentage of foods in a balanced diet or balanced meal

55%	Carbohydrates
20%	Proteins
15%	Fats and Oils
10%	Water, Mineral Salts and Vitamins
100%	Total

MALNUTRITION:

- This is an incorrect or unbalanced intake or eating of food.
- It is the condition that results from nutrient deficiency or overconsumption.

Malnutrition can result in poor health because two or more food values may be missing in the diet or because the diet includes too much of one or more nutrients.

Some causes of malnutrition:

Famine, war, poverty, worries, drought, flooding, sanctions, embargos.

Signs of malnutrition:

- Poor growth.
- Deterioration of hair, skin and nails.
- Loss of energy
- Infection in the body
- Loss of blood.
- Poor digestion of food

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- Frequent illness.
- The white blood cells cannot fight the germs in the body when malnourished..

TYPES OF MALNUTRITION:

(i). Over-nutrition:

Overconsumption of certain nutrients - proteins, fat. This usually causes overweight or obesity.

(ii). Under-nutrition:

Results from lack of enough proteins or micronutrients. It leads to low weight-for- height(wasting), height-for-age (stunting) and weight-for-age (underweight).

Diseases of malnutrition

(i) Goiter (ii) Cretinism (iii) Ricketts (iv) Scurvy (v) Pellagra (vi) Anaemia (Vii) obesity/overweight (viii) underweight.

SUMMARY QUESTIONS/ACTIVITIES

- 1. What is food?
- 2. Define the word nutrition.
- 3. What is a balanced diet?
- 4. List some of the causes of malnutrition.
- 5. What are some of the signs/symptoms of malnutrition?
- 6. State the types of malnutrition.











LEARNING OUTCOME

In this unit, pupils will learn about:

Immunisation

AIR-BORNE DISEASE:

These are diseases that are passed on or transmitted from one person to another by air for example, Measles, Tuberculosis (TB) Influenza, Mumps and Conjunctivitis (Apollo)

Water-borne diseases:

These are diseases that are transmitted through water e.g. Bilharzia.

Communicable diseases:

These are diseases which are spread from one person to another either directly or indirectly for example the HIV Aids virus, Gonorrhea, Common Cold, Yaws, Ringworm, Measles, Chicken-pox, Whooping Cough etc.

Non-communicable diseases:

These are diseases which do not spread from one person to another e.g. Yellow Fever, Malaria, Tapeworm, Guinea Worm, Tetanus, Sleeping Sickness, Jogger etc.

Immunity: This is the ability of the body to fight against diseases.

IMMUNISATION:

Is giving a person an injection which provides artificial immunity against a particular disease e.g. Poliomyelitis (die foot.)

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Importance of immunisation:

- 1. It enables people to live longer and healthier.
- 2. It prevents people from becoming victims of the six (6) childhood diseases measles, tetanus, tuberculosis, poliomyelitis, whooping cough and diphtheria.
- 3. It helps to protect blood stream.
- 4. It makes the body produce antibodies.

SUMMARY QUESTIONS / ACTIVITIES

- 1. What is an air-born disease?
- 2. Give examples of air-borne diseases.
- 3. Give examples of communicable diseases.
- 4. What is immunity?
- 5. Why is immunisation important?









LEARNING OUTCOMES

In this unit, pupils will learn about:

- First Aid.
- First Aid Kit/Box.
- First Aid Kit Items.
- First Aid Policy.
- Importance of First Aid.
- Uses of some first Aid items.

FIRST AID:

This is the immediate treatment given to an injured person before the arrival of a doctor or before being taken to the hospital. It is also known as first help.

FIRST AID KIT/FIRST AID BOX:

This is the kit or box that contains medicines and other items used in carrying out first aid treatment.

FIRST AID KIT ITEMS:

A simple first aid kit contains the following items: Bandages, Surgical Spirit, Sterile gauze, Cotton wool, Safety Pins, Liquid Ointment, Antiseptic Ointment, Vaseline, Table Salt, Baking Soda, Plaster, a pair of scissors, pain killer tablets etc.







FIRST AID POLICY/RULES:

First Aid involves emergency treatment and support to protect life through:

- 1. Clearing, maintaining and opening of airways.
- 2. Restoring breathing or circulation.
- 3. Protecting the injured person particularly if they are unconscious.
- 4. Promoting recovery.

IMPORTANCE OF FIRST AID:

- i. Saves lives.
- ii. Provides temporary relief.
- iii. Reduces pain where possible.
- iv. Prevents the victims from losing to much blood.
- v. Preserves lives before the more qualified medical personnel arrive at the scene of the accident.

USES OF SOME COMMON FIRST AID ITEMS:

S/N	Common First Aid Items	Use of the item
a	Sterile gauze	It is used for covering wounds.
b	Cotton wool	It is used for cleaning and covering wounds.
C	Bandages	They are used for binding wounds or injuries.
d	Safety pins	They are used to pin bandages.
e	Surgical Spirit	It is used for cleaning wounds.
f	Liquid Ointment	It is used for cleaning or dressing wounds.
9	Vaseline	It is used as ointment for wounds.
h	Ammonium salt	It is used to wake up a patient from fainting.









i	A pair of scissors	It is used for cutting sterile gauze, bandages, plasters etc.
j	Pain killer tablets	They are used for reducing or stopping pains.

SUMMARY QUESTIONS/ACTIVITIES

- 1. What is first aid?
- 2. Name five first aid kit items.
- 3. Give three (3) rules for first aid.
- 4. Why is first aid important?
- 5. List four (4) uses of first aid items.







AGRICULTURAL SCIENCE

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LEARNING OUTCOMES

In this unit, pupils will be able to:

- Explain the meaning of Agriculture.
- Discuss the branches of Agriculture.
- Discuss the importance of Agriculture to man, animals and other countries

BACKGROUND

In Sierra Leone all tribes and regions practice agriculture for so many reasons. Most of them are still in agriculture..

Duration (80minutes)

DEFINITION OF AGRICULTURE:

Agriculture could be define as the growing of crops and the rearing of animals for man's use and for industrial purposes.

It could also be defined as a science which deals with the art or practice of cultivating the soil, producing crops and rearing of livestock for man's and industrial uses.

BRANCHES OF AGRICULTURE

The main branches of Agriculture include the following:

- 1. **Soil Science:** Is the study of soil as a natural resources on the surface of the earth.
- 2. **Crops Science:** Deals with the study of crop production which includes cultivation, management, processing and use of crops.
- 3. **Animal Science:** Is the scientific study of animals that are under the control of man, i.e. the study of domestic and wild animals and their uses.

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- 4. **Agricultural economics:** The study of the allocation and utilisation of the resources used and what the farmers produce.
- 5. **Agricultural education:** This is where farmers learn different skills, methods and the use of modern tools.
- 6. **Agricultural engineering:** Involves the study of farm tools and equipment.
- 7. **Agricultural ecology:** Is the study of agricultural ecosystems and their components and how they function within themselves.

IMPORTANCE OF AGRICULTURE

- 1. Agriculture provide food for man.
- 2. It also provide feed for livestock.
- 3. It provide employment for the working population.
- 4. It provide raw materials for agro based industries.
- 5. It also provide clothing and decoration.
- 6. Agriculture provide income for the farmer.
- 7. It provides drugs and vaccine to keep people healthy.
- 8. It also creates bilateral relationship between two countries.
- 9. Provides foreign exchange.

SUMMARY QUESTIONS/ACTIVITIES

- 1. State three reasons why you think agriculture is important.
- 2. What are the three most common branches of Agriculture.











UNIT 2

AGRICULTURAL TOOLS AND EQUIPMENT

LEARNING OUTCOMES

In this unit, pupils will be able to:

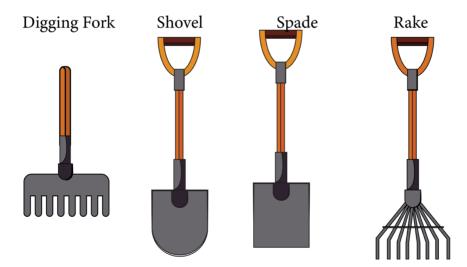
- Describe the most common tools used on the farm or garden.
- Discuss the uses of farm or garden tools.
- Identify farm or garden tools and equipment.
- Understand the maintenance of farm tools.

BACKGROUND

There are a lot of tools we see every day in our homes and in the environment. We see how people use them in the garden but we do not know how to use and take care of them.

• *Duration (80minutes)*

COMMON FARM TOOLS AND EQUIPMENTS:



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UNIT 2: Agricultural Tools and Equipment



Agricultural tools and equipment refer to the tools or materials used in agricultural operations e.g. digging, construction of seed bed, clearing, cutting sticks etc.

USES OF THE ABOVE TOOLS IN AGRICULTURE:

Hoe

- 1. Used for harvesting tuber crops.
- 2. For planting rice and groundnut

Shovel

- 1. For moving loose materials like soil within the farm.
- 2. For digging.
- 3. To construct drainage in the garden.









Spade

- 1. For digging holes.
- 2. For making paths between seed bed.
- 3. For clearing of weeds along paths between seed beds.

Rake

- 1. For leveling soil surface.
- 2. For removing uprooted roots/weeds and soil particles
- 3. For covering seeds when broadcasted.

Hand Trowel

- 1. For mixing fertilizers in head pan.
- 2. For digging shallow holes on seed bed for planting.
- 3. For lifting seeding from nursery beds during transplanting.

Cutlass

- 1. For clearing land and for cutting sticks and pegs.
- 2. For transplanting seedlings and digging holes.
- 3. For harvesting tree crops like banana, plantain, coconut etc.

Pick-axe

- 1. For removing large stones from the soil.
- 2. It is also used for digging.

Digging fork

- 1. Used for digging purposes.
- 2. Used to turn manure during compost making.
- 3. For loosening the soil.











Sickle

- 1. For harvesting rice.
- 2. For cutting down forage grass for livestock.

Budding Knife

1. For cutting and grafting.

Below are some more agricultural equipments



Disc Plough



Garbage disposal Unit



Cultivator









MAINTENANCE OF FARM OR GARDEN TOOLS:

- 1. Wash or clean the tools after use.
- 2. Oil, crease or lubricate moveable parts to reduce friction.
- 3. Sharpen the blunt edges and blades regularly.

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- 4. Paint, oil or grease the metal part to prevent rust.
- 5. Store tools in a cold dry place.

SUMMARY QUESTIONS/ACTIVITIES

- 1. Draw two (2) common farm or garden tools.
- 2. Describe the tools in your diagram.
- 3. State one use of each of the tools in your diagram.









FARMING SYSTEM

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Explain the plant life cycle.
- Explain the types of farming.
- Compare upland and swamp rice farming or cultivation.
- Identify the types of land used for farming in Sierra Leone.

BACKGROUND

It is important for us to know the plants around us, their life cycles and the types of farming systems in Sierra Leone.

• *Duration (120 minutes)*

PLANT LIFE CYCLE:

This refers to the time or period which a plant takes to reach maturity or harvesting. In short, it is the period from planting to harvesting.

Plant life cycle could be divided into three:

- Annuals
- Biennials
- Perennials
 - i. **Annuals:** -These refer to crops or plants that complete their life cycle within one year or one growing season e.g. groundnut, corn.
 - ii. **Biennials:** This refers to crops which complete their life cycle within two years or two growing seasons e.g. cassava, potato etc.
 - iii. **Perennials:** This refers to crops that complete their life cycle within 3 to 10 years. In other words they are crops that live long. E.g. Mango, coconut, orange, apple, sugar cane. etc.

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iv. **Ephemerals:** - They are crops that mature in 3 to 4 months and can undergo 2 to 3 life cycles in a year e.g. Tomatoes.

Note: That annual crops are sub-divided into three:

- **Arable/food crops**: such as maize, rice, millet, vegetables.
- **Fibre crops**: Such as Cotton
- **Leguminous Crops**: Such as cowpea, groundnut.

TYPES OF FARMING:

There are different types of farming in agriculture:

- 1. Subsistence farming
- 2. Commercial farming
- 3. Fish farming
- 4. Poultry farming
- 5. Dairy farming
- 6. Crops farming
- 7. Meat farms

Subsistence Farming: – This is a type of farming that deals with the growing of crops and rearing of animals in small quantities, wherein "the farmer grows for himself and family consumption.

Commercial Farming: The farmers grow crops and rear animals in a large quantity mainly for sale to the public to earn money.

Fish Firming: - This is also referred to as aquaculture. It is the process of rearing different types of fish species in a pond. Some example of fish that can be reared are - tilapia, mudfish, catfish, tongue fish.

Poultry Farming: - This refers to the process of rearing domestic birds like chicken, duck, guinea fowl mainly for meat and egg production.

Dairy farming: - This type of farming focuses on the production of milk from animals and the processing into other dairy products.









Crop Farming: - This type of farming focuses on the growing of different kinds of crops for the use of man and for industrial purposes.

Meat Farming: - This deals with people and companies engaged in modern industrialized livestock agriculture, for the production, packing, preservation and marketing of meat. This does not deal with dairy products, wool etc.

Livestock Farming: - This term refers to domestic animals that are kept or reared by people for their meat, leather, wool and other products. Examples of livestock are:

Cattle, Pig, Sheep, Goat, Chicken etc.





These farm animals are raised to be sold as well as for consumption

RICE FARMING PRACTICES/CULTIVATION: UPLAND AND SWAMP



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STEPS INVOLVED IN RICE CULTIVATION

- 1. Purchase or buying of seeding from storekeepers, suppliers or market: A variety of rice includes, short grain, medium grain, sweet etc.
- 2. **Choose the planting location:** choose a fertile soil and location with enough sun-light.
- 3. Consider the season.
- 4. **Prepare the grain seed for sowing:** this involves soaking the seeds in water or nursing it. If the farmer is going to cultivate it on the swamp, allow the seeds to soak for 12 hours but not longer than 36 hours, then remove the seeds from water.
- 5. Planting or broadcasting of seeds in the soil.
- 6. **Caring for seedlings:** Fill the bucket with at least 2 inches / 5 cm of water.
- 7. Add compost to the soil, slightly covering the grains
- 8. Observe the water levels of the planting area, keeping the soil moderately wet.
- 9. Space out the young plant after germination to avoid over growing, and weed from time to time.
- 10. Harvesting and processing for consumption.

TYPES OF LAND FOR FARMING

Grass land: - this is the area that is dominated by grass and other herbs.

Savanna: - Is grass land with scattered trees.

Swamp Land: - This refers to wet land with grass, mangroves and sometimes with few palm trees on swamp land. Nursing is done before final cultivation or planting is done.

SUMMARY QUESTION/ACTIVITIES

- 1. Explain any plant life cycle.
- 2. Explain one type of farming that is common in your area.
- 3. Briefly discuss the steps involved in rice farming.











ANIMAL AND SOIL

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Differentiate between domestic and wild animals.
- Identify the types of soil and their compositions.

BACKGROUND

Soil is the most important thing in agriculture because without it human beings cannot live, plants cannot grow, domestic and wild animals will not have place to live.

• DURATION (80 minutes)

EXAMPLES OF DOMESTIC ANIMALS:

- 1. Sheep
- 2. Cow
- 3. Goat
- 4. Chicken
- 5. Cat

- 6. Ducks
- 7. Rabbit
- 8. Turkey
- 9. Pig
- 10. Horse

EXAMPLE OF WILD ANIMALS:

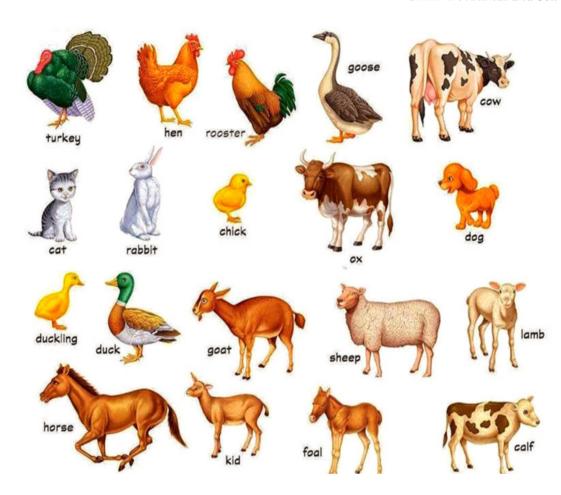
- 1. Lion
- 2. Tiger
- 3. Leopard
- 4. Elephant
- 5. Bull
- 6. Camel

- 7. Squirrel
- 8. Fox
- 9. Giraffe
- 10. Zebra
- 11. Eagle
- 12. Vulture

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WILD ANIMALS AND DOMESTIC ANIMALS:

Domesticated animals: - They refer to animals that can be taken care of by human beings. They are easily controlled as compared to wild animals.

Wild animals: - This refers to animal species that are not controlled or tamed by man. They find their own food, shelter, water and all their other needs in specific natural habitat. They are dangerous to human and crops as well.

Rodents: - There are group of mammals that destroy crops on the farm example are; rat, mice, squirrel etc.





SOIL:

Definition of Soil

Soil could be defined as loose weathered material on the earth's crust where seeds germinate and plant grows.

Functions of the soil

There are four functions of the Soil.

- i. As a home for soil organisms.
- ii. It acts as a medium for plant growth.
- iii. Provides nutrients for plant growth.
- iv. Holds plant during farming.

Soil composition

This refers to different sizes and kinds of rock and minerals that make up the soil.

Diagram that shows the percentage of soil composition

Organic Matters 5%

Mineral particle: (clay, silt, gravel, stones) 45%

The mineral matter is the largest component and represents small solid rock fragments such as gravel, stones etc.

Water – Refers to the amount of water present in the soil that is available to plants

Soil Air – Refers to mixture of gases present in the pore spaces of the soil.

Organic matter – This is derived from dead and decaying plant and animal remains







Different types of soil

- Sandy soil
- Silt soil
- Clay soil
- Loamy soil

Sandy soil: - sandy soil has the largest particles among the different soil types. It is dry and gritty to touch. It cannot hold water, has good drainage

Silt soil: - This type of soil has much smaller particles than sandy soil, it is smooth, retains high percentage water.

Clay soil: Clay soil has the smallest mineral matter among the three (3) types of soil, it has small pore spaces, it has high water holding capacity, poor drainage.

Loamy soil: This type of soil contains all the three soil types in their correct proportions. It has moderate water holding capacity and it is also dark in colour. It is the best soil for cultivation because it composed of sand, silt, clay and organic matter and it has a good drainage.

SUMMARY QUESTION/ACTIVITIES

- 1. Identify some examples of domestic and wild animals.
- 2. Distinguish between domestic and wild animals.
- 3. Explain the different types of soil.











LEARNING OUTCOMES

In this unit, pupils will be able to:

- Distinguish between fertilizer and manure.
- Explain the cropping system in Sierra Leone.
- Differentiate between organic and inorganic fertilizers.
- Explain the agricultural cycle.

BACKGROUND

If you want to get a good yield from the agricultural activities through planting, it is important to understand the agricultural cycle, cropping system and the type of fertilizer to use.

• *Duration (80 minutes)*

FERTILIZER AND MANURE

Fertilizer and Manure: - Refers to any substance such as the mixture of nitrates added to the soil in order to increase its productivity.

Types of Fertilizer

- i. Organic fertilizer
- ii. Inorganic fertilizer

Organic Fertilizer: - This is decayed plants and animal remains which have been carefully prepared in order to provide nutrients in the soil. Examples are: green manure, farm yard manure compost and wood ash.

Inorganic Fertilizer (synthetic fertilizer): - These are substances which are manufactured artificially (or by man) that contain minerals or synthetic

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chemicals. It has a higher concentration of known plant nutrients than organic manure. Examples are NPK, sulphate of ammonium and magnesium.

DIFFERENCES BETWEEN ORGANIC AND INORGANIC FERTILIZER:

Organic Fertilizer	Inorganic Fertiliser
Natural	Artificial or manmade or synthetic
Cheap	Expensive
Slow in action	Quick in action
Has long lasting effect	Effective in a short time
Encourage rapid growth of weeds	Does not encourage rapid growth of weed
Improve soil fertility and structure of the soil	Improve the growth of the plant itself

Difference between Fertilizer and Manure

Fertilizer: Refers to any chemical substance that contains plant nutrients and when applied to the soil increases its nutrient.

Manure: Refers to compost made from remains of plant and animals when added to the soil. They will also help to improve soil structure and provide nutrients.

CROPPING SYSTEM/FARMING SYSTEM:

They are as follows:

- i. Bush following
- ii. Shifting cultivation
- iii. Continuous cropping
- iv. Crop rotation
- v. Mono cropping









What Is Cropping System/Farming System

These refer to all techniques and management practices that involve crop production for a specific period of time. They are practiced in order to improve productivity and help to manage different types of crops.

Bush fallowing: - This process involves leaving a specific piece of land for about 5 to 7 years after the land has, to a great extent, been exhausted of nutrients due to continuous planting of crops on it.

Shifting cultivation: - This is the cultivation of crops on a specific piece of land after the land is exhausted, the farmer will then move to another area of land.

Continuous cropping: - This farming system involves putting the land under cultivation from year to year.

Crop rotation: - This system involves the planting of crops in succession on the same piece of land.

Mono cropping: - This is the cultivation of one type of crop every year to maturity on the same piece of land.

AGRICULTURAL CYCLE FARMING ACTIVITIES/PRACTICES:

Agricultural cycle: - This refers to the step by step manner farming activities are carried. The agricultural cycle is the annual cycle of activities related to the growth and harvest of crops/plant. These activities include – losing the soil, seed planting, special watering, moving young plant to the permanent site, weeding and harvesting.

The Basic Processes are:

- i. Soil preparation This involves brushing, burning, stumping and digging.
- ii. **Planting** Involves nursing, transplanting and sowing.
- iii. **Irrigation** Involves mulching and watering.
- iv. **Pest prevention** involves weeding, application of pesticides, herbicides etc.

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Harvesting and post harvesting – involves harvesting, drying, threshing, parboiling, milling, winnowing, packaging - bagging, labelling.

Note: The main steps for agricultural practices include: preparation of soil, sowing, adding fertilizer, irrigation, harvesting and storage.

SUMMARY QUESTION/ACTIVITIES

- 1. Explain the differences between fertilisers and manure.
- 2. Give three reasons why bush fallowing is important in agriculture.
- 3. Explain two reasons why you think it is good to use the correct cropping system.



















LEARNING OUTCOMES

In this unit, pupils will be able to:

- State the meaning of Science.
- Outline the branches of Science.
- State the principles of Science.
- State the name of chemical apparatus or tools.

SCIENCE

Definition of Science:

- A method of obtaining knowledge through observation and experimentation.
- A way of doing and knowing things.
- Referred to as the systematic study of nature.

PRINCIPLES OR PROCESSES OF SCIENCE

The **Scientific method is a systematic approach (or steps)** used by scientists in solving problems or acquiring knowledge.

They include:

- 1. Identifying a problem.
- 2. Making a hypothesis.
- 3. Carrying out experiments (involves collecting data, measurements, recording).
- 4. Analysis of results (calculations).
- 5. Making deductions.
- 6. Drawing inference/ Conclusions
- 7. Recommendations and Report

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BRANCHES OF SCIENCE:

Some branches of science are:

- 1. **Agriculture:** the growing of crops and rearing of animals for man and industrial use.
- 2. **Biology:** The study of living things (plant and animals).
- 3. **Mathematics:** The science of numbers and counting.
- 4. **Physics:** The study of matter in relation to energy.
- 5. **Astronomy:** The study of heavenly bodies.
- 6. **Chemistry:** The study of matter in relation to their properties and changes they undergo.
- 7. **Botany:** The study of plants.
- 8. **Zoology:** the study of animals.

CHEMICAL APPARATUS OR TOOLS AND THEIR USES:

These are tools used by scientists in their studies of science. They include:

NAME OF APPARATUS OR TOOLS	USES
Bunsen Burner	To heat substances.
Microscope	To look at tiny objects.
Test Tube	To hold liquids.
Beaker	To hold substances.
Funnel	To transfer liquid.
Hand Lens	Magnification of objects.
Goggles	To protect the eyes.
Gas Jar	To store gases.
Tripod Stand	To support beakers and flasks during heating.
Measuring cylinder	To measure the volume of liquids



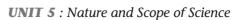


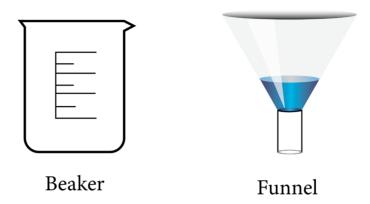
Microscope Parts Outer cone Course Focusing Mechanism Body Tube Inner cone Revolving Nosepiece Arm-Objectives Burner tube Mechanical Fine Focusing Mechanism Stage To gas source Stage Collar Rack and Pinion Substage Mirror test tube Goggle Tripod Stand Gas Jar Hand Lens Test Tube Cylinder











SUMMARY QUESTIONS/ACTIVITIES

- 1. State some scientific activities in your community.
- 2. Name the various places where a microscope can be found.
- 3. Name three parts of a microscope.







UNIT 2

ENVIRONMENT

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Define what the Environment is.
- State some environmental resources.
- Explain environmental degradation.
- Define environmental sanitation.
- Define Afforestation.
- Describe flowering plants.

MEANING OF ENVIRONMENT:

Environment is defined as the immediate surroundings of an organism.

Environmental Resources: Are natural things found in the environment of an organism. They include soil, water, air, forest, mineral.

SOIL: is the loose weathered materials of rock that support plant growth. The different types of soils are Sandy, Loamy and Clay soil.

WATER: is defined as one of the elements which support life. The body of an organism consist of 70% of water. Pure water has no smell, colour and taste. It boils at 100° C.

The various sources of water can be grouped into two:

- i. Natural sources of water (river, Stream, Lakes or wet land, Spring.)
- ii. Man-made sources of water (Tap, Dam, Bore hole wells, canals etc.)

PLANTS: Are living things that can produce their own food. They are divided into flowering and non-flowering plants.

Flowering Plants: Are plants that can produce flower. Example; mango, pear, orange, paw paw.

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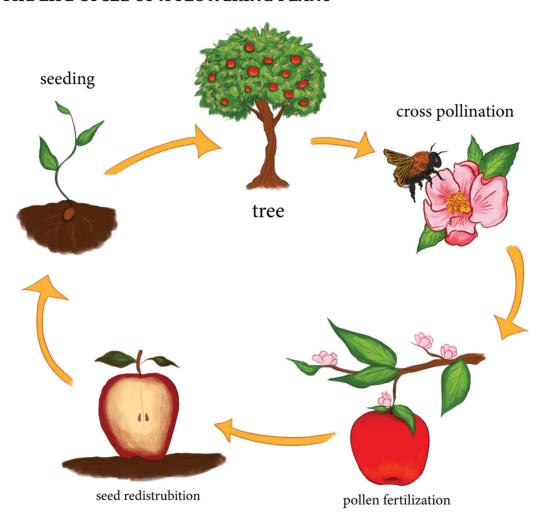






None Flowering Plants: Are plants that do not produce flower. Example; Mosses, ginger, ferns.

THE LIFE CYCLE OF A FLOWERING PLANT



Ornamental Plants: Are plants grown for the beautification of the environment. Example; Hibiscus, Roses, Sun flower.

THE SEQUENCE OF THE CYCLE

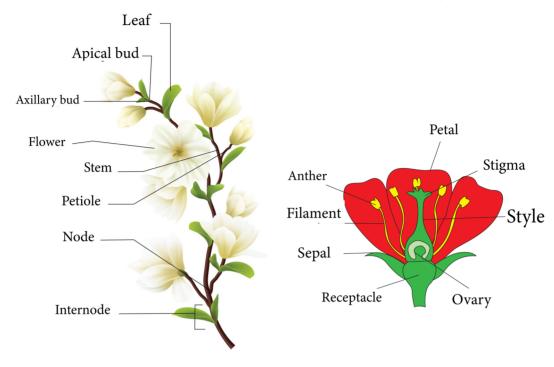
Flowering, pollination, fertilisation, formation of seeds and fruits, maturation (of fruit and seeds) seed dispersal and germination.







diagram showing the structure of flowering



flowering plants

Environmental degradation: is the process whereby the natural environment deteriorates due to either manmade or natural factors.

Natural Causes of the Environmental Degradation includes:

- Flooding
- Earth quakes
- Tornadoes
- Volcanic Eruption
- Mud slides
- Draught
- Hurricanes
- Bad farming practices

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Man Made Causes of Environmental Degradation includes:

- Pollution
- Wild fire
- Mining
- Deforestation
- Over population
- Land fills

Effects of Environmental Degradation

- Disease (Health impacts)
- Loss of wild life
- Ozone layer depletion
- Loss of soil fertility
- Low agricultural productivity
- Low economic growth
- Shortage of food
- Climate change
- High rate of morbidity and mortality

Prevention of Environmental Degradation

- Reduction in pollution (air, water and land pollution).
- Planting of trees (afforestation).
- Using of clean energy (Solar, Wind and Hydropower)
- Proper domestic waste management
- Avoid of war.
- Control of pollutants (faeces, dead bodies).
- Avoid indiscriminate burning of bush.
- Control population growth.
- Avoid over grazing of farm animals.









Deforestation:

This is the permanent removal or clearing a wide area of trees.

Causes of deforetation

- Agricultural activities
- Overgrazing of farm animals
- Production of timber
- Production of fuel wood
- Charcoal burning

Effects of deforestation

- Soil erosion
- Poor water quality
- Reduced food security
- Climate change
- Loss of wild life
- Global warming.

AFFORESTATION

This is the process of planting trees or sowing seeds in a barren land to create a forest. It is also the restoration of plants for the next generation.

Importance of afforestation

- Preservation of wild life
- Tourist attraction
- Minimises soil erosion
- Provide forest products
- Stabilises the climate

Environmental sanitation: Deals with the control of environmental factors that are connected to disease transmission.

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Methods of environmental sanitation

- Proper waste disposal
- Water treatment
- Noise control
- Conservation of forest.

Environmental sanitation aims at:

- 1. The promotion of hygiene.
- 2. The prevention of disease and other consequences of ill health.

SUMMARY QUESTIONS/ACTIVITIES

- 1. State the effects of environmental pollution.
- 2. State the difference between afforestation and deforestation.
- 3. Outline the major stages in the life cycle of a flowering plant.









DISEASES

LEARNING OUTCOMES

In this unit, pupils will be able to:

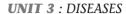
- Name different types of diseases.
- States causes, signs and symptoms, prevention and control of some diseases.
- Explain the term, "Immunisation".

TYPE OF DISEASES:

NAMES OF DISEASES	CAUSATIVE AGENT	SIGNS AND SYMPTOMS	PRVENTION AND CONTROL
Cholera	Bacteria	VomitingFrequent stoolingLoss of water and dehydration Weakness	Cleaning of homes. Washing of hands after the use of toilet. Drinking of clean water.
Diarrhoea	Bacteria	Stomach painFrequent stoolingWeakness	Cleaning of the environment. Control of domestic waste. Treatment of water
Worm infestation	Soil and Faeces	Increase in appetiteMalnourishmentStomach Pain	Avoid eating contaminated food. Minimise eating of pork. Regular Deworming.







Malaria	Mosquito bite	Fever	Use of bed net.
		Headache	Cleaning of the
		Joint pain	environment.
		Joint pain	Use of mosquito coil
Typhoid	Bacteria	Headache	Avoid eating
	and poor environmental	Vomiting	contaminated food.
	sanitation.		Drinking of clean
		Loss of appetite and	water.
		fever.	
			Early treatment.

LIFE CYCLE OF THE MALARIA PARASITE:

This involves two hosts, the female anopheles mosquito and man.

CAUSE OF MALARIA:

During sucking of human blood, the **female anopheles mosquito** injects **sporozoites** into the **human host**. Sporozoites infect liver cells. In the liver they grow into **schizonts**. They grow further and come out of the liver into the blood as **merozoites** ready to attack the person with malaria. The malaria parasite in the blood stream causes shivering, high temperature and destruction of the red blood cells. If not treated will lead to severe headache, weakness and death.

LIFE CYCLE OF THE MALARIA PARASITE:

Life Cycle: Sporozoites (from mosquito to the liver of man) Schizonts (in the liver of man) merozoites (enter the bloodstream from the liver). Mosquito sucks the mosquito parasites from malaria infected person again.

IMMUNISATION/INNOCULATION/VACCINATION:

Is the process whereby a person's internal body defence system is enhanced to resist the attack of infectious diseases.









Immunible Diseases: Are diseases that expose our children to great risk of illness, disability and death. They include: Polio, Measles, Tuberculosis, Diphtheria, Tetanus, hepatitis B, Hemophilia and Influenza.

Importance of immunisation and vaccination:

- Prepares the body to fight against disease.
- Prevents the onset of disease.
- Reduces severity of disease.
- Enhances easy prevention and treatment of disease.
- Increases productivity.
- Helps in the complete eradication of diseases.

General Control of Disease:

- Control of vector of disease.
- Environmental sanitation (Clean water and adequate shelter).
- Immunisation against disease.
- Education.
- Training of heath personnel's or workers.
- Early treatment.
- Improved nutrition.

The Six Killer Childhood Diseases:

These are diseases that cause great stress to the normal developmental growth of young children in the tropical region of the world. They include Whooping Cough, Tuberculosis, Tetanus, Diphtheria, Measles, and Polio.

SUMMARY QUESTIONS/ACTIVITIES

- 1. Define immunisation.
- 2. State the various ways of preventing malaria.
- 3. Name the six killer childhood diseases.
- 4. State the life cycle of the malaria parasite.

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CLASSIFICATION OF DISEASES

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Classify diseases.
- State and define the different classes of diseases.

TYPES OR CLASSES OF DISEASE:

- 1. **Epidemic Disease:** Is a disease that affects a large number of people within a country. Example; Cholera and Diarrhoea.
- 2. **Pandemic disease:** Is a disease that spreads over multiple continents. Exampl;, Ebola, Corona virus.
- 3. **Endemic Disease:** A disease that spreads within a particular group of people or country. Example; Malaria.

Ebola Virus: Was first discovered in 1976 in Africa. It got its name from the Ebola River, which is near a village in the Democratic Republic of Congo where the disease was first discovered.

Causative Agent of Ebola

The disease is caused by a virus.

Methods of transmission

- By contact with bodily fluids of affected animals. Example; Monkeys, Chimpanzee, Fruit bats.
- Contact with bodily fluid of infected person.
- Touching contaminated needles and surfaces.
- Contact with contaminated air, water or food.

Note: A person who has the Ebola virus without showing any symptoms cannot spread the virus.







Signs or Symptoms of Ebola Virus

- Patient develops flu and other illness at the beginning.
- High fever
- Headache
- Joint and muscle pain
- Sore throat
- Weakness
- Stomach pain
- Lack of appetite

Prevention/Control of Ebola

- Isolation of patient.
- Avoid visiting areas suspected of outbreak of Ebola.
- Avoid body contact.
- Avoid contact with monkeys, Chimpanzees and Gorillas.
- Mass vaccination of people.
- Education or Sensitization.
- Wearing of protective gears by health workers.

Pandemic

Covid-19 (Corona Virus)

The 2019-2020 Corona Virus pandemic, is a pandemic of the corona virus disease. It was first discovered in Wuhan, Hubei, China in 2019.

Signs and Symptoms of Corona Virus

After 2-14 days the infected person will experience the following:

- Cough
- Shortness of breath (difficulty in breathing)
- Fever Chill











- Muscle pain
- Sore Throat
- Loss of taste or smell

Mode of Transmission

- Air droplets
- Touching of nose and face with infected hands.
- Sneezing

Prevention and Control of corona Virus

- Avoid close contact with people.
- Wearing of face mask.
- Washing of hands with soap and water.
- Sneezing through the elbow.
- Avoid public gathering.
- Social distancing.

SUMMARY QUESTIONS/ACTIVITIES

- 1. Define epidemic disease.
- 2. State the needed precaution for covid-19.
- 3. Define pandemic disease.









CHEMICAL COMPOUNDS

LEARNING OUTCOMES

In this unit, pupils will be able to:

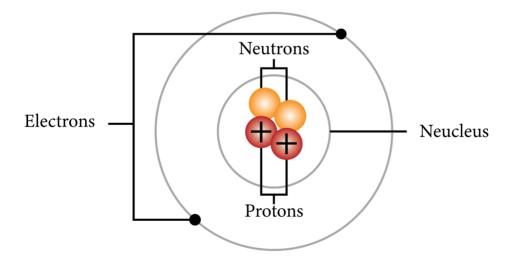
- Define chemical compound.
- Name the different states of matter.
- Define solute, solvent and solution.
- Explain evaporation, fusion and deposition.
- Explain the concept of light.

CHEMICAL COMPOUNDS

An Atom

An atom is one of the basic building blocks of matter in the universe. Atoms are extremely small particles of matter that can take part in chemical reaction. The components of an atom include, Protons, Neutrons and Electrons

Diagram of an atom



Arrangement of sub atomic components or particles

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CHEMICAL COMPOUNDS:

A chemical compound is formed as a result of a chemical combination of two or more elements.

Common names of chemical compounds include:

No.	Names of chemical compound	Formula
1	Sodium bicarbonate (baking powder)	NaHCO ₃
2	Calcium Oxychloride (bleaching powder)	CaOCl ₂
3	Sodium Chloride (table salt)	NaCl
4	Calcium Carbonate Chalk (marble)	CaCO ₃
5	Potassium Hydroxide (caustic soda)	КОН
6	Solid Carbon dioxide (dry ice)	$CO_{2(s)}$
7	Acetic Acid (vinegar)	CH ₃ COOH
8	Sodium Carbonate (washing soda)	Na ₂ CO ₃
9	Sucrose (sugar)	$C_{12}H_{22}O_{11}$

STATES OR PHASES OF MATTER:

Matter exists in three main states or phases. They are, solid, liquid and gas.

Properties of Solid

- It has a definite shape.
- Has definite volume.

Its particles are closely packed together. Examples of solids; stones, books ruler, etc.

Properties of Liquid

- It has definite volume.
- It can flow/ Has big inter-particle spaces.
- It takes the shape of the container in which it is put.









• It has no definite shape. Example; water, kerosene, soft drink.

Properties of Gas

- It has no definite shape.
- It has no definite volume.
- Particles are widely spaced. Example; Oxygen, water vapor.

SOLUTE, SOLVENT AND SOLUTION:

Solute: Is any matter that can dissolve in another substance called solvent. Example; sugar, salt.

Solvent: Is a liquid or gas that can dissolve a solid and another liquid. Example; Turpentine, acetone, ethanol, water. (Water is a universal solvent).

Solution: This is a uniform mixture of a solute and a solvent. For example salt in water gives a saline solution. Sugar in water gives a sugar solution

Change of state of matter

Depending on the temperature and pressure, matter may change from one state to another. There are six distinct changes of states of matter.

- Freezing: A change from liquid to solid.
- Melting: A change from solid to liquid.
- Condensation: A change from gas to liquid.
- Evaporation: A change from liquid to gas.
- Sublimation: A change from solid directly to gas. (Without passing through the liquid state).
- Deposition: A change from gas directly to solid.(Without passing through the liquid state).

Change of state of Matter

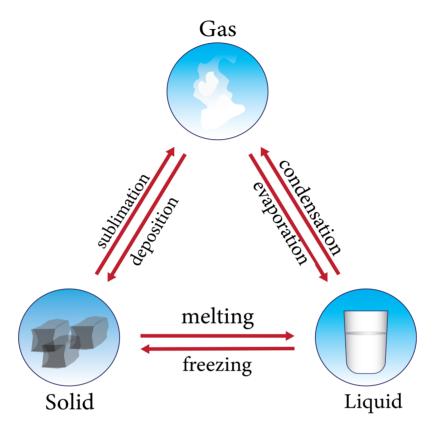
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LIGHT AND COLOURS

Human eyes and brain together translate light into colours. Light receptors within the eyes transmit messages to the brain which produces familiar sensation of colours.

Colours: Is visible light with a specific wave length. Black and white are not colours because they do not have specific wavelengths. A wavelength is the distance covered by a wave in one complete cycle. White light contains all the wave lengths of visible light. Black is the absence of visible light. Primary colours of light are; Red, Green and Blue. Mixing these colours in different proportions can make all the colours of the light we see.

Separation (or dispersion) of the colours of light.

A (triangular) prism can be used to separate white light into different colours of light.

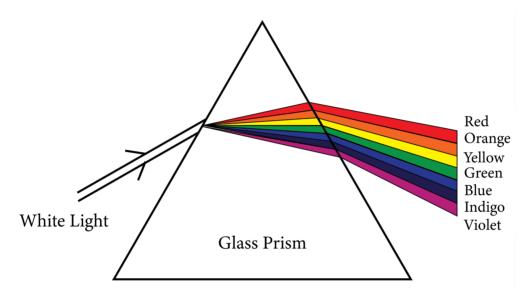




The use of a prism to separate white light into the different colours of the rainbow (spectrum) is called dispersion of light.

The rainbow colours are: Red. Orange. Yellow. Green, Blue, Indigo and Violet(ROYGBIV).

Diagram of separation of white light in a Triangular Prism



An opaque Object: is one that does not let light to go through it, instead it reflects or absorb the light that strikes on it.

SUMMARY QUESTIONS/ACTIVITIES

- 1. What object helps us to see colours of the white light?
- 2. Define wavelength of visible light.
- 3. Give the chemical names of salt, baking soda, the air that we breathe in and air that we breathe out.
- 4. What are the three states of matter?









SOCIAL STUDIES





MEANING AND NATURE OF SOCIAL STUDIES

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Define social studies.
- Know the importance of social studies.
- Define a community.
- Know the types of communities.
- Define environment.
- Know the types of environment.
- Know the other subjects related to social studies.

BACKGROUND

In this unit, pupils will learn in perspective the definition and nature of social studies and know that man plays a key role in influencing the environment through his mental ability.

• DURATION (90 MINUTES)

WHAT IS SOCIAL STUDIES?

Social studies is the study of man and his environment. Man in social studies serves as the central player in relation to his activities in the environment.

Man in social studies refers to both male and female who form the world population.

THE IMPORTANCE OF SOCIAL STUDIES:

i. Provides pupils with the opportunity to develop attitudes and values necessary for good citizenship.

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- ii. Provides pupils with the necessary knowledge, attitudes and skills to preserve and protect societal values of religions, traditional and national coexistence.
- iii. To provide pupils with international understanding.
- iv. Creating love for cultural heritage and patriotism.
- v. To identify the societal dos and don'ts.

What is a community?

A community is a group of people living together with shared commonalities such as norms, religion, values, customs in a given geographical area.

Types of communities

- Village community/ rural community
- Town community/ urban community
- City community/ urban community
- National community/ Sierra Leone community

The smaller communities include:

- The family community
- The school community
- The religious community- church, mosque and shrine.
- The work place communities government offices, institutions.

What is environment in social studies?

Environment in social studies refers to man and his surroundings.

Name the types of environment.

Physical environment:

This consists of all the things we see around us. For example; Land, water/ sea/ ocean, climate, valley, mountain, vegetation etc.









Social environment:

For example; Ethnic groups, religious groups, traditional/cultural groups and beliefs.

- 1. What are the other subjects related to social studies?
- Geography
- History
- Anthropology
- Economics
- Science
- Psychology
- Political science/ civics
- Government

QUESTIONS/ACTIVITIES



- 2. Why is social studies important?
- 3. What is a community?
- 4. Name four(4) communities.
- 5. In social studies----- refers to your surroundings.
- 6. Name 5(five) subjects related to social studies.







2 PHYSICAL AND ADMINISTRATIVE ENVIRONMENT OF SIERRA LEONE

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Know the geographical location of Sierra Leone.
- Know the geographical size of Sierra Leone.
- Know the population size of Sierra Leone.
- Know the physical regions of Sierra Leone.
- Know the rivers of Sierra Leone.
- Know the climate of Sierra Leone.
- Know the neighboring countries sharing borders with Sierra Leone.
- Know the common features of Sierra Leone and her neighbours.

BACKGROUND

The physical and administrative environment of Sierra Leone teaches pupils to know the sixteen districts and the five political regions of Sierra Leone.

• DURATION (90 MINUTES)

Physical Environment of Sierra Leone

1. What is the geographical position of Sierra Leone?







Sierra Leone lies on the west coast of Africa between latitudes 7°North and 10° North of the equator and between longitudes 10° and 13° west Greenwich.

1. What is the geographical size of Sierra Leone?

Sierra Leone covers a total area of 73,326 square kilometers or 27, 295 square miles.

1. What is the current population of Sierra Leone?

Sierra Leone has a population of 7, 075, 641 people.

The four (4) main physical regions of Sierra Leone are:

- i. Freetown peninsular
- ii. The coastal plain
- iii. The interior lowland
- iv. The interior plateau

The seven main rivers of Sierra Leone are:

- i. The Great Scarcies
- ii. The Little Scarcies
- iii. Rokel River (Seli)
- iv. Jong River (Taia)
- v. Sewa River
- vi. Moa River
- vii. Mano River

The Climate of Sierra Leone

Sierra Leone has two main seasons:

- The wet/raining season
- The dry season

The raining season begins in the month of May and ends in the month of October.

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The dry season begins in the month of November and ends in April.

Neighbouring countries that share border with Sierra Leone.

• The immediate or nearest neighbours of Sierra Leone are Guinea and Liberia.

Common features of Sierra Leone and her neighbours:

- Sierra Leone, Liberia and Guinea are all Republics.
- They are all located in West Africa or along the west coast of Africa (the Atlantic ocean).
- They all experience the two main seasons- wet and dry season.
- They all have common physical features such as hills, mountains, plateau, vegetation and valleys.
- Their plateau regions are rich in mineral resources such as gold, diamond, bauxite etc.
- They all have seaports.
- The common boundary feature is the Mano River.

The administrative environment of Sierra Leone

The provinces of Sierra Leone

A province is a region of a country that is outside the capital city or the main seat of the national administration.

Sierra Leone has three (3) provinces:

- 1. The Northern Province Makeni Head Quarter
- 2. The Eastern province Keneme Head Quarter
- 3. The southern province Bo Head Quarter

Sierra Leone has six (6) Administrative Regions

- 1. The Northern Region
- 2. The Eastern Region







- 3. The Southern Region
- 4. The Western Rural
- 5. The Western Urban
- 6. The North Western Region

DISTRICT

A District is a sub-division of a province or municipality carrying some national administrative functions.

There are 16 Districts in Sierra Leone

Northern Province

- 1. Tonkolili Magboroka
- 2. Bombali Makeni
- 3. Koinadugu Kabala
- 4. Portloko portloko
- 5. Kambia kambia

Eastern Province

- 1. Kailahun Kailahun
- 2. Kenema Kenema
- 3. Kono Kono

Southern Province

- 1. Bo Bo
- 2. Bonthe Bonthe
- 3. Moyamba Moyamba
- 4. Pujehun Pujehun







North West

- 1. Karene Kamakuwei
- 2. Falaba Falaba/ Mongor
- 3. Western Aera Urban Freetown
- 4. Western Area Rural Freetown

Current number of chiefdoms in Sierra Leone

There are 190 chiefdoms in Sierra Leone

QUESTION/ACTIVITIES

- 1. What is the geographical location of Sierra Leone?
- 2. What is the geographical size of Sierra Leone?
- 3. What is the current population of Sierra Leone?
- 4. How many main rivers does Sierra Leone have?
- 5. Name the two main seasons in Sierra Leone.
- 6. Name the five administrative political regions of sierra leone.
- 7. How many districts are in Sierra Leone?
- 8. How many chiefdoms are in Sierra Leone?









PLANETARY BODIES

LEARNING OUTCOMES

In this unit, pupils will be able to

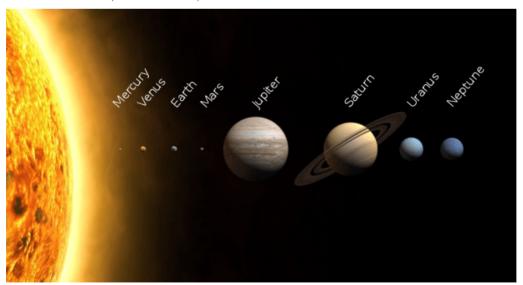
- Describe the Planetary bodies in the Solar System.
- List in order the planetary bodies
- State the largest, smallest, hottest and coldest planet.

BACKGROUND

Our solar system is made up of a star, eight planets, moons and many other smaller bodies. There are a lot of solar systems in the universe. All the various types together are called a galaxy. The part of the entire galaxy where our solar system can be found is called the Milky Way.

Planetary bodies are different groups of stars, planets and moons in the universe that form the heavenly galaxies. Eight of these are the planets that form the Solar System in the Milky Way.

• DURATION (70 MINUTES)



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5. Jupiter

The planets in the solar system

Planets are heavenly bodies, (including the earth), that orbit the sun.

Planets in the solar system

- 1. Mercury
- 2. Venus 6. Saturn
- 3. Earth 7. Uranus
- 4. Mars 8. Neptune

(N.B. Pluto is found to be a dwarf planet)

Facts about the Planets.

- The largest planet is Jupiter.
- The hottest planet is Venus.
- The coldest planet is Neptune
- The smallest planet is Mercury. (Mercury has no atmosphere to trap heat from)
- The planet where life flourishes is planet earth.

QUESTION/ACTIVITIES

- 1. What are planetary bodies?
- 2. List the planetary bodies in their correct order from the Sun.
- 3. Name the hottest planet in the solar system.
- 4. Name the largest planet in the solar system.
- 5. Name the coldest planet in the solar system.
- 6. Name the smallest planet in the solar system.
- 7. Name the planet where life exists.











CIVIC EDUCATION

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Explain Citizenship and patriotism.
- Describe the three arms of Government.
- Identify the National symbols.

BACKGROUND

Civic education teaches pupils to know their basic fundamental rights, duties and obligations.

DURATION (80 MINUTES)

CITIZENSHIP AND PATRIOTISM:

Who is a Citizen?

- A Citizen is a person born as an inhabitant of a country with full legal rights. It simply means having full membership of a country.
- A Citizen is a person who, by place of birth, nationality of both or one parent, or by naturalisation is granted full rights as a member of a nation.

What is Patriotism?

Patriotism is the love expressed by a citizen by upholding the norms and values of a country and give vigorous support for one's country.

Duties and Responsibilities of a Citizen

- 1. Respect the constitution and abide by it.
- 2. Develop a sense of nationalism and patriotism.
- 3. Protect and preserve Government properties.

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- 4. Participate and cooperate in all democratic processes including voting and be voted for.
- 5. Respect the dignities and the religion of others.
- 6. Engages in communal labour.
- 7. Helps the police to maintain order such as prosecuting and exposing criminals.
- 8. Paying appropriate taxes.

Types of Citizenship

- 1. Citizenship by birth
- 2. Citizenship by registration/marriage
- 3. Citizenship by naturalization
- 4. Citizenship adoption
- 5. Citizenship by honorary conferment

THE THREE ARMS OF GOVERNMENT:

- 1. The Executive (The President and Ministers. In some countries it comprises the President, Vice President and Cabinet Members).
- 2. The Legislature (The Parliament, Law Making Body)
- 3. The Judiciary (The Court Prosecutors of Law offenders)

NATIONAL SYMBOLS:

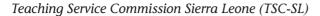
National Symbols are our national emblems that are put on Government documents and in other institution as a sign of national identity.

1. National flag, showing the Green, White and Blue colours adopted.











- Green stands for agricultural and natural resources.
- White stands for peace, unity and justice.
- Blue stands for our natural harbour and our waters.
- 2. The Coat of Arms bearing the Crown Emblem that carries the two lions, with two palm trees on both sides and the motto of Sierra Leone at the bottom of the arm with April 1961 when the country gained her independence.



- 3. The National Anthem It is the national song of patriotism sang during officials celebrations or Government ceremonies. The national anthem can also be sang before and after the close of an official gathering especially in schools or other government institutions.
- 4. The National Pledge It is also a national recitation of loyalty and patriotism to the country usually recited in schools and other official gathering.









ACTIVITIES/QUESTIONS

- i. Who is a citizen?
- ii. What is patriotism?
- iii. Name five duties and responsibilities of a citizen?
- iv. What are the three arms of Government?
- v. What does the colours of the national flag represent?
- vi. On what occasions is the National Anthem usually played or sang?









HISTORY OF SIERRA LEONE

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Explain the origin of the name of Sierra Leone.
- Describe how Sierra Leone was colonised.
- Describe how Sierra Leone attained Independence.
- Summerize the 1991 Constitution.

BACKGROUND

This unit teaches pupils to know the three aspects of the history of Sierra Leone from the time it was discovered to colonialism and independence

• DURATION (90 MINUTES)

THE ORIGINAL NAME OF SIERRA LEONE:

According to history, Sierra Leone was founded by a Portuguese sailor name Pedro de Cintra in 1462.

The original name was Serra Lyoa "Lion Mountain" in Portuguese referring to the range of hills that surround the harbour.

COLONISATION OF SIERRA LEONE:

The colonisation of Sierra Leone began in 1787, when the British founded Grenvell town (Now Freetown) to resettle the free slaves from England in their new home so called the promise of freedom. The early settlers came in 1787, followed by the Nova Scotians in 1792 and the Maroons in 1800.

After stemming the tide of the slave trade in 1806, the British colonised Sierra Leone as a British Crown Colony under the monarchical leadership of Her Majesty Elizabeth the 1st the Queen of England in 1808.

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Independence of Sierra Leone

Sierra Leone gained her independence from the British on the 27th April 1961 under the leadership of Sir Milton Augustus S. Margai as the Prime Minister.

QUESTIONS/ACTIVITIES

Sierra Leone's 1991 Constitution

The entire Constitution has 14 chapters (Themes) and 192 topics covering the political, social, economic and religious lives of the citizens. Duties or responsibilities and security among others are captured. It also addresses exercise of power, foreign policy etc. The Constitution recognised separation of powers with provisions for oversight and institutional accountability. It vested the power of judicial review in the Supreme Court.

This was accepted as Act No. 6 of 1991. It was signed on 24 September 1991 by the President J. S. Momoh. It repealed the 1978 Constitution.

CONTENT OF THE 1991 CONSTITUTION (IN PART)

CHAPTER 1-THE REPUBLIC OF SIERRA LEONE

- 1. Declaration of Republic.
- 2. Public Seal.
- 3. The National Flag and National Anthem.

CHAPTER II- FUNDAMENTAL PRINCIPLES OF STATE POLICY

- 1. Fundamental obligations of Government.
- 2. Government and the people.
- 3. Political objectives.
- 4. Economic objectives.
- 5. Social objectives.
- 6. Educational objectives
- 7. Foreign policy objectives.





- 8. Obligations of the mass media.
- 9. Enhancement of national culture.
- 10. Duties of a citizen.
- 11. Fundamental principles not justiciable.

CHAPTER III- THE RECOGNITION AND PROTECTION OF THE FUNDAMENTAL HUMAN RIGHTS AND FREEDOM OF THE INDIVIDUAL.

- 1. Fundamental human rights and freedom of the individual.
- 2. Protection of right to life, from arbitrary arrest or detention, of freedom of movement, from slavery and forced labour, etc.

CHAPTER IV-THE REPRESENTATION OF THE PEOPLE

- 1. Registration of voters.
- 2. Electoral Commission.
- 3. Political Parties Registration etc.

CHAPTER V- THE EXECUTIVE

PART I- THE PRESIDENT

- 1. Office of the President.
- 2. Qualification for the office of President.
- 3. Election of President, misconduct by President, etc.

PART II-EXECUTIVE POWERS

- 1. Exercise of Executive authority in Serra Leone.
- 2. Vice President.
- 3. Ministers and Deputy Ministers of Government, etc.

PART III-PROCEDURE OF PARLIAMENT

PART IV-RESPONSIBILITIES, PRIVILEGES AND IMMUNITIES

PART V- LEGISLATION AND PROCEDURE IN PARLIAMENT.

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CHAPTER VI- THE LEGISLATURE

PART I-COMPOSITION OF PARLIAMENT

1. Establishment of Parliament, members of Parliament, qualification for membership of Parliament, the Speaker, etc.

PART II-SUMMONING, PROROGATION AND DISSOLUTION

1. Sessions of Parliament, sittings of Parliament, etc.

PART III- PROCEDURE OF PARLIAMENT

- 1. Presiding in Parliament, quorum in parliament, etc.
- 2. Powers to make laws, mode of exercising legislative power, etc.
- 3. Alteration of this Constitution.

PART IV

CHAPTER VII- THE JUDICIARY

PART I-THE SUPERIOR COURT OF JUDICATURE

1. Establishment of the Judiciary.

PART II- THE SUPREME COURT.

1. Composition of the Supreme Court, etc.

PART III- COURT OF APPEAL

PART IV- THE HIGH COURT OF JUSTICE

PART V-APPOINTMENT OF JUDGES

CHAPTER VIII- THE OMBUDSMAN

1. The parliament to establish office of Ombudsman





QUESTIONS/ACTIVITIES

- 1. Who discovered Sierra Leone?
- 2. Who colonised Sierra Leone and in what year?
- 3. When did Sierra Leone gain her independence?
- 4. State and explain five topics in the 1991 Constitution of Sierra Leone.









ENVIRONMENTAL SANITATION

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Explain what environmental sanitation is.
- Explain personal hygiene.
- State what health needs are.

BACKGROUND

This unit helps pupils to know environmental sanitation, personal hygiene and health needs.

• DURATION (80MINUTES)

ENVIRONMENTAL SANITATION:

Environmental sanitation is the practical application of certain rules to safe guard and improve on a healthy environment.

How do we safeguard our environment?

- i. Clean toilets and latrines regularly.
- ii. Provide dustbins for proper disposal and storage of refuse.
- iii. Insects breeding grounds should be destroyed by spraying frequently with insecticides or prescribed chemicals.
- iv. Gutters should be in good running order to avoid becoming breeding grounds for mosquitoes
- v. Clean compounds regularly to avoid environmental threats.

PERSONAL HYGIENE:

Personal hygiene means taking good care of oneself.

Not for sale

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The following parts of the body should be taken care of daily or most often:

- i. teeth
- ii. skin
- iii. finger nails
- iv. hair
- v. feet
- vi. ears

Note: clothes should be properly and regularly washed.

HEALTH NEEDS:

- Hospital
- Primary health care
- Adequate medical supplies

ACTIVITIES/QUESTION

- 1. Define environmental sanitation.
- 2. How do we safeguard our environment?
- 3. What is personal hygiene?
- 4. Name the human parts required to be cleaned daily.









ETHNIC GROUPS IN SIERRA LEONE

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Define ethnic groups.
- State the ethnic groups in Sierra Leone.
- State the ethnic groups common to Sierra Leone, Guinea and Liberia.

BACKGROUND

This unit will help pupils to know the definition of ethnic groups, know the ethnic groups of Sierra Leone and know the ethnic groups common to Sierra Leone, Guinea and Liberia

• DURATION (70MINUTES)

ETHNIC GROUPS:

Ethnic groups are groups of people known by common cultural and racial qualities such as physical make-up, colour of the skin, type of hair, shape of eyes and nose.

The ethnic groups in Sierra Leone









There are 17 ethnic groups in Sierra Leone:

I. Mende vii. Kono xiii. Vai/Gallines

ii. Themne viii. Madingo xiv. Susu/Soso

iii. Limba xi. Korankoh xv. Kissi

iv. Loko x. Yalunka xvi . Kono

v. Fulla xi. Shabro/Bullom xvii. Gola

vi. Creole xii. Kru

The ethnic groups common to Sierra Leone, Guinea and Liberia:

i. Fulla

ii. Madingo

iii. Kissi

iv. Via

v. Kru /Kroo

ACTIVITIES/QUESTIONS

- 1. Define ethnic groups.
- 2. List the ethnic groups in Sierra Leone.
- 3. List the ethnic groups common to Sierra Leone, Guinea and Liberia.







UNIT 8

REGIONAL ORGANISATIONS AND THE UNITED NATIONS ORGANISATION

LEARNING OUTCOMES

In this unit, pupils will be able to:

- Narrate the history of the Mano River Union(MRU)
- Describe the Economic Community of West African States (ECOWAS)
- Narrate the brief history of the African Union
- Describe the United Nations Organisation.

BACKGROUND

The pupils will know a brief history of the sub-regional organisations within West Africa and the African Union including the member states of these organisations.

• DURATION (80MINUTES)

THE MANO RIVER UNION (MRU):

On October 3rd 1973 the President of Sierra Leone Siaka Probyn Stevens and the President of Liberia President William Tolbert signed the Mano River Declaration at Malema in Pujehun District. This agreement committed the two countries to work together in developing their countries politically, socially, culturally and economically.

On the 20th October 1980 Guinea became a member of the MRU. Therefore the three member states of the MRU are Sierra Leone, Guinea and Liberia.

THE ECONOMIC COMMUNITY OF WEST AFRICAN STATES (ECOWAS):

ECOWAS was formed in Lagos Nigeria on the 28th May 1975. Fifteen countries of West Africa signed the agreement. Cape Verde later joined Ecowas which brought the number to 16 member states.







The membership of ECOWAS is classified into English speaking or Anglophone countries, French speaking or Francophone countries and Portuguese speaking or Lusophone countries

English speaking or Anglophone countries

- Republic of the Gambia
- Republic of Ghana
- Republic of Liberia
- Republic of Sierra Leone
- Republic of Nigeria

French speaking or francophone countries

- The Republic of Benin
- The Republic of Burkina Faso
- Cote d'Ivoire
- the Republic of Mali
- the Republic of Mauritania
- the Republic of Guinea
- the Republic of Niger
- the Republic of Senegal
- the Republic of Togo

Portuguese speaking or Lusophone countries

- the Republic of Cape Verde
- the Republic of Guinea-Bissau

THE AFRICAN UNION (AU) FORMERLY THE ORGANISATION OF AFRICAN UNITY (OAU):

The former OAU was formed in Addis Ababa, Ethiopia, in 1963.











The idea of renaming the OAU was suggested by Colonel Muamar Gadaffi, the leader of Libya. The adoption in Libya in September 1999 of the Sirte declaration by African Heads of States paved the way for the creation of an African Union which was formally launched in Durban, South Africa, on July 9th 2002. President Thabo Mbeki of South Africa became the first AU chairman.

There are fifty-three countries that formed the AU.

THE UNITED NATIONS ORGANISATION (UNO):

The UN was formed on the 24th October 1945 with its headquarters in New York USA.

OBJECTIVE

- The UN's primary objective is to promote peace and co-operation among member state.
- Sierra Leone became the 100th member after her independence in 1961.

ACTIVITIES/QUESTIONS

- 1. Name three regional organisations in West Africa.
- 2. Name five Francophone countries in West Africa.
- 3. How many countries formed the Mano River Union?
- 4. How many countries formed the ECOWAS?
- 5. What is the primary objective of the UN?







REFERENCE

- 1. NPSE general paper review guide august 1, 2020.
- 2. Social studies for Sierra Leone basic education certificate examination by Joe $A.D.\ Alie.$
- 3. Notes for the national primary school examination class 6 by V.B. Coker



