



**NCDC**

NATIONAL CURRICULUM  
DEVELOPMENT CENTRE

# ACCELERATED EDUCATION PROGRAMME FOR UGANDA

INTEGRATED SCIENCE LEVEL TWO AND THREE

## SYLLABUS







# **ACCELERATED EDUCATION PROGRAMME FOR UGANDA**

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INTEGRATED SCIENCE LEVEL TWO AND THREE

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## **SYLLABUS**

Supported by





A product of the National Curriculum Development Centre for  
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## FOREWORD

Uganda has made important strides in promoting children's rights over the past 20 years. In order to fully understand the lives of children in the country today and the issues that continue to hamper the achievement of their full potential, it is important to take a systematic look at the situation of children and specifically the disadvantaged (refugees and out of school children).

Children and youth frequently miss out on substantial amounts of schooling due to a variety of reasons including poverty, marginalisation, conflict, and crisis. Currently, according to the UNESCO Institute for Statistics, there are approximately 263 million children and youth out of school globally. With each missed school year, there is greater risk that they will be unable to return to formal education and greater risk to their protection as a result. Responding to the needs of these learners has increasingly led governments and agencies to provide more flexible forms of education such as "*Accelerated Education*".

Uganda has a big number of children and youth out of school. The most affected are; displaced children (internally and externally), combatants as well as girls and children with disabilities who usually find it difficult to access and complete their education. The enactment of the Sustainable Development Goals (SDGs) reaffirms a global commitment to ensuring that all boys and girls have access to, and complete, free, equitable, and quality Primary education by 2030.

Over-age learners who enrol in formal education systems are found to be much more likely to drop out early because of; poor instructional strategies and methodologies, and stigmatization. Children who do not start school at the correct age would likely remain out of school, and those who enter when they are already over aged face multiple challenges including sharing classrooms and studying with much younger children (thus inferiority complex).

The accelerated education curriculum provides an opportunity for these over-aged out-of-school children to access education, catch up and transition back into the formal system, secondary education, vocational training and livelihoods.



Hon. Janet Museveni Kataaha  
**MINISTER OF EDUCATION AND SPORTS**

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## List of Acroynms

- AEP: Accelerated Education Program  
MOES: Ministry Of of Education & Sports  
NCDC: National Curriculum Development Centre  
NRC: Norwegian Refugee Council  
SEN: Special Educational Needs  
SNE: Special Needs Education

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# Introduction

## Rationale

Children and youth frequently miss out on substantial amounts of schooling due to a variety of reasons including poverty, marginalisation, conflict, and crisis. Accelerated Education Programme (AEP) emphasises speeding up a curriculum, and allowing students to complete a certified, equivalent level of education in a shortened timeframe. This requires increased and more effective time on task, an emphasis on literacy and numeracy with a socio-emotional learning component and oftentimes, removal of non-core subjects. Programmes also often demonstrate flexibility to meet the unique needs of the learners they aim to serve – both in relation to timetabling and location of instruction. The intention of this flexibility is to enable students to study in a way and at a level appropriate to their ability, age and circumstance.

The AEP targets the over-aged learners who, in one way or another, were disadvantaged and dropped out of the normal Primary school cycle. The AEP intends to help learners of age group 10-18 years to catch up and accomplish the Primary level in a shorter time of three instead of seven years. It is structured in levels i.e. Level 1 (P1-P3) which is equivalent of the Thematic Section in Primary school. Level 2 combines P4 and P5 and Level 3 combines P6 and P7. Each level merges the curricula content in relevant classes which is to be completed in one year.

On completion of an AEP, the learners should be able to either reintegrate into the formal schooling system, or enter into skills-based technical and vocational education, or to enter directly into the workforce, but with core literacy and numeracy skills in place. There are varied structures of an AEP, and they vary in their pace of acceleration, the age range they target, and the approach to teaching and learning that they employ.

This AEP is a review of the curriculum for various non-formal education programmes which Uganda has been implementing since 2011 to address educational barriers of different communities.

## Scope and Sequence

Each theme/topic of this curriculum is comprised of: Overview; learning outcome(s); subject competences; language competences; content; suggested teaching/ learning activities; life skills indicators and values; suggested competences for assessment and hints for the teacher.

## **The National Aims of Education**

This programme is designed to address the National Aims of Education and the Aims and Objectives of Primary Curriculum as specified in the Government White Paper on the Education Policy Review Commission Report (1992).

The aims of education are:

1. To promote understanding and appreciation of the value of national unity, patriotism and cultural heritage, with due consideration to internal relations and beneficial interdependence;
2. To inculcate moral, ethical and spiritual values in the individual and to develop self-discipline, integrity, tolerance and human fellowship.
3. To inculcate into Ugandans a sense of service, duty and leadership for participation in civic, social and national affairs through group activities in educational institutions and the community.
4. To promote scientific, technical and cultural knowledge, skills and attitudes needed to enhance individual and national development.
5. To eradicate illiteracy and equip the individual with basic skills and knowledge to exploit the environment for self-development as well as national development; for better health, nutrition and family life, and the capacity for continued learning; and
6. To equip the learners with the ability to contribute to the building of an integrated, self-sustaining and independent national economy.

## **Objectives of Primary Education in Uganda**

1. To enable individuals to acquire functional literacy, numeracy and communication skills in Ugandan languages and English;
2. To develop and maintain sound mental and physical health;
3. To instil the value of living and working cooperatively with other people and caring for others in the community;
4. To develop cultural, moral and spiritual values of life;
5. To inculcate an understanding of and appreciation for, the protection and utilization of the natural environment using scientific and technological knowledge;
6. To develop a sense of patriotism and unity, an understanding of one's rights and responsibilities and an appreciation of the need to participate actively in civic matters;

7. To develop pre-requisite for continuing education and development;
8. To develop adequate practical skills for making a living;
9. To develop appreciation for the dignity of work and for making a living by one's honest effort;
10. To develop the ability to use the problem-solving approach in various life situations;
11. To develop discipline and good manners.

## Definition of Terms

**Learning outcome** is a broad behavioural change or ability demonstrated after a learning period. Learning outcomes define the overall direction of the teaching and learning process. They are what the learner understands, knows and is able to do. They are achieved through competences.

**Competence** is what one is able to do as a result of learning or what the learner understands, knows and is able to do. Competences describe the specific abilities of the learner. It is what the learner can demonstrate, show and do as a result of being exposed to the given Science content. The syllabus stipulates subject and language competences to be developed in each topic. These competences focus on knowledge, comprehension, application and attitude change. Language competences have been emphasised to enhance literacy skills.

**Assessment** - according to Huba & Freed, assessment is the processes of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning.

**Values** are the desired standards of behaviour acceptable in a given society. Values need to be developed during and after the teaching and learning process. Examples of values include; cooperation, sharing, appreciation, endurance, patience, responsibility, care, respect, trustworthiness, love, togetherness, honesty, joy, concern, privacy, independence and self-reliance. It is important to note that you need to observe the learners to see whether they are practicing what they learn.

**Life skills** are the abilities for adaptive and positive behaviour that enable learners to deal effectively with the demands and challenges of everyday life. Life skills are personal and social skills that enable young people to function confidently and competently with others. This curriculum emphasises the development of life skills and values across the themes/topics. This will help in developing moral and ethical values. Life skills and values will help learners to;

- i) make informed decisions.
- ii) practice healthy behaviours.
- iii) avoid risky situations.
- iv) change attitudes.
- v) become good citizens.
- vi) be active and constructive in life.
- vii) solve problems encountered in different situations.
- viii) cope with stress and control their emotions.
- ix) communicate effectively.

**Life skill indicators** are the observable abilities shown in a learner.

**Methodology** is an executable process or procedure with a specific task that someone can use to deliver content according to the work plan.

**Technique** is the final skilful execution of a given point which can be used to get a productive outcome.

**Strategy** is a mental model in our understanding and an end in mind that enables us to deliver lessons systematically in class.

**Approach** is a set of or combination of different methods.

**Instructional strategies** are the techniques the teacher uses to help learners become independent and focused.

**Instructional material** is any resource the teacher uses to teach learners.

**Tools** are items or implements used for a specific purpose, to perform different tasks.

**Special educational need** is an educational provision designed to address the needs of learners with barriers to learning. **Special needs education** is a program that addresses barriers to learning

**Special education** is an educational provision for learners with special educational needs.

**Inclusive education** is a term which wholesomely provides for optimum participation of all learners. Inclusion does suggest all other exposures.

## Background to Science

Science is an important part of the accelerated education curriculum. It has been designed to enable the learner develop scientific skills and values. At Level 2 and 3, the Science syllabus has six themes which are broken down into topics that are taught throughout the whole period.

## Methodology and Strategies

You are expected to use child-centred methods which put the learner at the centre of the teaching and learning process. Some of the methods to be used during the teaching and learning process include; project work, discussion, role-play, brainstorming, excursion, dramatisation, demonstration, debating, question and answer, recitation, group work, storytelling/retelling, rote method, peer to peer, repetition, I do, we do, you do, recitation, discussion, Bible reading, guided discovery and task analysis.

## Instructional Materials, Tools and Equipment

Instructional materials are very important in lesson delivery. Use instructional materials and get learners involved in the teaching and learning process as this will help them get more interested in their work. Use a wide range of instructional materials. Utilise the local environment and locally available resources to make learning real and interesting. Examples of instructional materials include; textbooks, pictures, charts, magazines, life skills manual, newspapers, real objects, crops and other relevant materials, and resource persons.

## Assessment

Continuous assessment is recommended and should be based on the suggested competences for each topic. Carry out assessment during and after the teaching/ learning process, at the end of the topic/theme, end of the term and at the end of the year. Assess learners and keep records.

**Note:** Pre entry assessment should be carried out to identify the level of placement of learners. The second kind of assessment should be done every term or annually to enable learners transit to their appropriate levels after displaying the required competencies.

## Special Educational Needs

Remember that we have learners in classes with various barriers to learning and development. Take keen interest in identifying every learner that behaves differently, keep their records, and where possible, call for

personnel who are trained in special needs education for functional assessment and proper guidance on how to manage those learners. You can as well utilise the following strategies to provide the necessary assistance during the teaching and learning processes for learners with special educational needs;

- i) Sign/finger spell (deaf)
- ii) Braille (blind)
- iii) Large print (low vision)
- iv) Tactile (blind and deaf/blind)
- v) Total communication for deaf and deafblind
- vi) Use of real objects
- vii) Variety of colours (while preparing their instructional materials)

### **General Guidance**

1. During the teaching learning process a variety of IMS and child centred methods should be used so that the learning process will be lively and interesting.
2. A part from the given life skills, indicators and values, apply a lot of creativity by utilizing any other relevant idea that may enable you make the lesson succeed.
3. Make use of the locally available materials in the environment as much as possible to make the learning and teaching environments friendly.
4. Help learners to use variety of senses through observations, discovery and tactile, thus making the learning/teaching process more meaningful.
5. Make teaching processes more interacting and inclusive by integrating different subjects as a means of developing the target concepts.
6. Study and understand the learning styles of your learners in order to plan for each individual child. Aim at an individual child not a class.
7. The modifications of the curriculum key areas to be focused on include: content, activities, methodologies, environment, time and assessment.
8. No subject is minor. Give equal opportunity for the learners to acquire and practice variously by learning creative performing arts (CAPES).
9. Use CAPE subjects as strategies to teach other subjects for instance; using songs, plays, drama in the teaching processes.
10. Remember to use life skills that will enable learners develop important values like; resolving conflicts, forgiveness, love and acceptance.
11. Endeavour to teach all the topics adequately.



## Topic Outline

<b>Level 2</b>				
<b>TERM 1</b>				
<b>Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Change d Periods</b>
1	The World of Living Things	Plant Life	10	10
		Growing Crops	10	15
		Animal Life	13	15
		Bacteria and Fungi	10	08
2	The Environment	Components (Soil)	10	11
		Weather Changes Around Us	15	15
3	Human Health	Personal Hygiene	05	05
		Food and Nutrition	15	15
<b>Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Change d Periods</b>
<b>TERM 2</b>				
3	Human Health	Sanitation	06	05
		Common Intestinal and Worm Infestations	08	10
		Vectors and Diseases	06	06
		Accidents and First Aid	08	13
		Immunization	07	13
		Primary Health Care	08	09
		Teeth	05	10
<b>Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Change d Periods</b>
<b>TERM 3</b>				
4	Human Body	Digestive System	08	17
5	Matter and Energy	Measurement	06	17
		Heat Energy	08	17
6	Science in Human Activity and Occupation	Keeping Poultry and Bees	10	16
		Keeping Goats, Sheep and Pigs	08	18
Number of Themes per term - Term 1: 3 Themes, Term 2: 1 Theme, Term 3: 2 Themes, <b>Total: 6 Themes</b>				

<b>Level 2</b>			
<b>TERM 1</b>			
<b>Theme</b>	<b>Topic</b>	<b>Periods</b>	<b>Change d Periods</b>
Number of topics per term	-	Term 1: 8 topics, Term 2: 8 topics, Term 3: 5 topics, Total: 21 topics	
Periods per week:	-	07 periods per week	
Duration of lessons:	-	40 minutes	
Hours per week	-	04 hours and 40 minutes	

<b>Level 3</b>				
<b>TERM 1 Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Changed Periods</b>
1	The World of Living Things	Classification of Animals	10	10
		Classification of Plants	10	13
2	The Human Body	Circulatory System	10	14
		Respiratory System	10	12
3	Human Health	Alcohol, Smoking and Drugs	10	15
4	Science in Human Activities and Occupation	Science at Home	05	05
	The Human Body	Reproductive System	08	15
<b>TERM 2 Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Changed Periods</b>
2	The Human Body	Muscular Skeletal System	10	15
5	Matter and Energy	Sound Energy	08	10
		Electricity and Magnetism	12	13
		Simple Machines and Friction	10	12
		Light Energy	12	13

6	Community, Population and Family Life	Population and Health	08	08
2	The Human Body	Excretory System	12	13
<b>TERM 3 Theme</b>		<b>Topic</b>	<b>Periods</b>	<b>Changed Periods</b>
7	The Environment	Resources in the Environment	06	28
8	Energy Resources	Energy Resources in the Environment	06	28
		Interdependence of Things in the Environment	06	28
Number of themes per term - Term 1: 4 Themes, Term 2: 2 Themes, Term 3: 2 Themes, Total: 8 Themes Number of topics per term - Term 1: 7 topics, Term 2: 7 topics, Term 3: 3 topics, Total: 17 topics Periods per week - 07 periods per week Duration of lessons - 40 minutes Hours per week - 04 hours and 40 minutes				

### Sample Timetable for Levels 2 and 3

DAY	8.30-9.10	9.10-9.50	9.50-10.30	10.30-11.00	11.00-11.40	11.40-12.20	12.20-1.00	1.00-2.00	2.10-2.50	2.50-3.30	3.30-4.30
MON	ENG	MATH	SST	BREAK	SCI	RE	MATHS	LUNCH	ENG	SCI	GAMES
TUE	MATH	ENG	ENG		SST	SCI	RE		MATHS	CAPE <sub>1</sub>	
WED	MATH	SST	ENG		MATH	SCI	ENG		SCI	RE	
THU	SST	MATH	CAPE <sub>2</sub>		MATH	ENG	ENG		SCIE	SCIE	
FRI	ENG	ENG	MATH		MATH	SST	SST		CAPE <sub>3</sub>		

#### Analysis

English	10
Mathematics	10
Science	7
Social Studies	6
Religious Education	3
CAPE 1	1
CAPE 2	1

SECTION 1

LEVEL  
**TWO**

## TERM 1

### THEME 1: THE WORLD OF LIVING THINGS

#### Topic 1: Plant Life

Duration: 10 Periods

#### Overview

Plants are very useful to people, animals and plants. Many common plants multiply by means of seeds. This topic will enable learners acquire the basic scientific knowledge of plant life through practical and experimental study.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) survey, identify and distinguish the attributes of plants in the environment.
- ii) explain the conditions for germination and proper growth of flowering plants.
- iii) classify plants by studying their structures and characteristics.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names the external parts of a flowering plant.</li> <li>• labels the parts of a flowering plant.</li> <li>• draws a flowering plant.</li> <li>• mentions the functions of</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• pronounces and spells /finger spells correctly the different parts of a flowering plant in local language and English.</li> <li>• spells/finger spells correct</li> </ul>	<b>Flowering plants</b> <ul style="list-style-type: none"> <li>• Parts of flowering plants</li> <li>• The two main systems (shoot and root )</li> <li>• Functions of the different parts:</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting different flowering plants</li> <li>• Naming the parts of the flowering plant</li> <li>• Labelling the parts of flowering plants</li> </ul>	<b>Creative thinking</b> <ul style="list-style-type: none"> <li>• Innovativeness</li> </ul> <b>Problem solving</b> <ul style="list-style-type: none"> <li>• Evaluating facts</li> </ul> <b>Decision making</b> <ul style="list-style-type: none"> <li>• Acceptance</li> <li>• Making choices</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>the different parts of the flowering plant.</p> <ul style="list-style-type: none"> <li>• discusses the conditions necessary for germination.</li> <li>• describes/ draws the structure of a seed.</li> <li>• mentions uses of plants to people.</li> </ul>	<p>words showing different parts of a flowering plant.</p> <ul style="list-style-type: none"> <li>• reads/signs short sentences on conditions.</li> <li>• writes/ writes in Braille words about parts of the seed necessary for germination.</li> <li>• writes/ writes in Braille short sentences on conditions necessary for germination.</li> </ul>	<ul style="list-style-type: none"> <li>- Roots</li> <li>- Stems</li> <li>- Leaves</li> <li>- Flowers</li> <li>• Seeds                             <ul style="list-style-type: none"> <li>- Seed structure</li> <li>- Conditions for germination</li> </ul> </li> <li>• Uses of plants to people:                             <ul style="list-style-type: none"> <li>- Food</li> <li>- Medicinal</li> <li>- Sold for money</li> <li>- Construction</li> <li>- Firewood</li> <li>- Charcoal</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Drawing the structure of a germinating seed</li> <li>• Discussing functions of a flowering plant</li> <li>• Experimenting with local seeds; seed viability</li> <li>• Stating the conditions for germination</li> <li>• Noting the progress in germinating seed</li> <li>• Sorting seeds</li> <li>• Planting seeds in the class garden and later in the</li> </ul>	<p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Fluency</li> <li>• Articulation</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Appreciation</li> <li>• Care</li> <li>• Responsibility</li> <li>• Fluency</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
			school garden as a demonstration plot • Mentioning different uses of plants to people	

### Suggested Competences for Assessment

The learner:

- i) names the two main systems of a flowering plant.
- ii) mentions any two uses of leaves and stems to a plant.
- iii) describes the parts of the flower which makes the pistil.
- iv) states the uses of a flower to a plant.
- v) explains the conditions necessary for a germinating seed.

### Hints for the Teacher

- i) Let learners have an excursion to see and collect different plants.
- ii) Teach using real objects, charts, diagrams and pictures.
- iii) Guide learners to do experiments on seed viability and record their findings.
- iv) In all the sub-topics and content, cater for the needs of learners with SNE.



## Topic 2: Growing Crops

Duration: 15 Periods

### Overview

Most of your learners know the different crops grown in their community. Although each crop is grown differently, there are some common activities that are carried out when growing any crop using different garden tools, equipment and materials. These crops are in two main categories; annual and perennials.

### Learning Outcome

By the end of this topic, the learner should be able to demonstrate skills in growing crops for increased output.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>identifies common crops in the community.</li> <li>groups the common crops into perennials and annuals.</li> <li>draws/describes and labels crops.</li> <li>identifies common tools, equipment and materials used in growing crops.</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>pronounces and spells/finger spells correctly the common crops in local language and English.</li> <li>writes/writes in Braille names of crops correctly.</li> <li>recites rhymes /poems about crops.</li> <li>names common tools,</li> </ul>	<ul style="list-style-type: none"> <li>Common annual and perennial crops in the community           <ul style="list-style-type: none"> <li>Annual crops (maize, beans, simsim, peas, sorghum, cassava and yams)</li> <li>Perennial crops (bananas, mangoes, oranges, tea, coffee)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Grouping common crops into perennials and annuals</li> <li>Describing the uses of tools, equipment and materials used in crop growing</li> <li>Naming the crop growing practices</li> <li>Demonstrating some crop growing practices</li> </ul>	<p><b>Effective Communication</b></p> <ul style="list-style-type: none"> <li>Accuracy</li> <li>Giving reasons for actions taken</li> <li>Audibility</li> <li>Confidence</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Acceptance</li> <li>Giving instructions</li> </ul> <p><b>Decision making</b></p>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• describes the uses of common tools, equipment and materials.</li> <li>• draws/ describes and labels common tools and equipment.</li> <li>• names some crop growing practices.</li> <li>• describes/ draws common signs of pest and disease damage in crops.</li> <li>• names common tuber crops.</li> <li>• identifies the characteristics of common tuber crops.</li> <li>• states ways of growing and caring for tuber crops.</li> <li>• identifies pests and</li> </ul>	<ul style="list-style-type: none"> <li>equipment and materials.</li> <li>• writes/ writes in Braille names of the tools correctly.</li> <li>• writes/ writes in Braille a short story about tools.</li> <li>• reads/signs and writes/ writes in Braille words correctly.</li> <li>• acts/role plays a dialogue about crop growing.</li> <li>• reads/ reads by tactile /signs and writes/ writes in Braille sentences correctly.</li> <li>• writes/ writes in Braille a short story about pests and disease</li> </ul>	<ul style="list-style-type: none"> <li>• Garden tools, equipment and materials</li> <li>• Crop growing practices</li> <li>• Common signs of diseases and pests in the crops and ways of controlling</li> <li>• Common tuber crops</li> <li><b>Root tubers</b> <ul style="list-style-type: none"> <li>- Sweet potatoes</li> <li>- Carrots</li> <li>- Turnips</li> <li>- Cassava</li> </ul> </li> <li><b>Stem tubers</b> <ul style="list-style-type: none"> <li>- Irish potatoes</li> <li>- Yams</li> </ul> </li> <li>• Common pests and diseases of tuber crops</li> <li>• Characteristics of common tuber crop pests</li> <li>• Effects of pests and disease on tuber crops:</li> </ul>	<ul style="list-style-type: none"> <li>• Describing some signs of pest and disease damage in crops and ways of controlling them</li> <li>• Identifying and naming the common tuber crops</li> <li>• Discussing the ways of growing and caring for crops</li> <li>• Describing/ drawing the characteristics of common crop pests and diseases</li> <li>• Discussing methods of controlling pests and diseases of crops</li> <li>• Describing/ drawing ways of harvesting, processing</li> </ul>	<ul style="list-style-type: none"> <li>• Giving instructions</li> <li>• Making choices</li> <li>• Being patient</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Initiating new ideas</li> <li>• Making choices</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Patience</li> <li>• Appreciation</li> <li>• Care</li> <li>• Acceptance</li> <li>• Responsibility</li> <li>• Confidence</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>diseases of tuber crops.</p> <ul style="list-style-type: none"> <li>• describes/ draws characteristics of common tuber crop pests and their effects on crops.</li> <li>• discusses methods of controlling pests and diseases of tuber crops.</li> <li>• describes/ draws ways of harvesting, processing and storing tuber crops.</li> <li>• practices growing tuber crops (project by Young Farmers Clubs)</li> </ul>	<p>damages in crops and ways of controlling them.</p> <ul style="list-style-type: none"> <li>• recites rhymes about growing and caring for tuber crops.</li> <li>• reads/signs words, sentences and stories about growing and caring for tuber crops.</li> <li>• writes/ writes in Braille words, sentences and stories about growing and caring for tuber crops.</li> </ul>	<ul style="list-style-type: none"> <li>- Rotting of tubers</li> <li>- Holes on tubers and leaves</li> <li>- Leaf yellowing</li> <li>- Leaf curling</li> <li>• Methods of controlling pests and diseases of tuber crops</li> <li>• Harvesting, processing and storage of tuber crops</li> <li>• Science oriented clubs (Young Farmers' Club)                             <ul style="list-style-type: none"> <li>- Work plan for tuber crop projects</li> </ul> </li> <li>• Activities of the project which can be done by the Young Farmers' Club</li> </ul>	<p>and storing crops</p> <ul style="list-style-type: none"> <li>• Practising growing tuber crops as a project</li> </ul>	

## Suggested Competences for Assessment

The learner:

- i) writes some crops which are both for consumption and selling.
- ii) states crops which are grown only for sale.
- iii) names perennial, annual and tuber crops.
- iv) draws the tools used for planting, cutting/harvesting crops.
- v) describes/draws the term mulching and its importance in crop growing.
- vi) mentions effects of weeds to crops.
- vii) describes/draws different crop growing practices.
- viii) discusses the ways of harvesting, processing and storing tuber crops.
- ix) names common pests and diseases for each of the following crops:
  - Cassava
  - Sweet potatoes
  - Cocoyam
- x) draws and names some pests and diseases that destroy tuber crops.

## Hints for the Teacher

- i) Involve learners in collecting/classifying common annual, perennial and tuber crops.
- ii) Let learners draw and label a variety of garden tools.
- iii) Guide learners to collect and draw parts of plants damaged by pests and diseases.
- iv) Allow learners to work in the school garden to practice crop growing.
- v) Let learners walk to the school garden to observe and write names of plants grown there.
- vi) Discuss with your learners how cassava and sweet potatoes can be preserved.
- vii) Choose and use methods/strategies which are relevant to the sub-topic and the content.
- viii) Introduce a Young Farmers' Club in your school.

## Topic 3: Animal Life

Duration: 15 Periods

### Overview

Animal life is an important topic which helps learners to develop interest and basic skills for managing projects like rabbit and cattle keeping. Studying cattle and rabbit keeping will help learners to acquire basic scientific knowledge and production skills.

### Learning Outcome

By the end of this topic, the learner should be able to understand and appreciate the contribution of rabbit and cattle keeping in homes.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>draws and labels the external parts of a rabbit.</li> <li>names the types of rabbits and their characteristics.</li> <li>gives uses of rabbits to people.</li> <li>constructs a hutch for rabbits.</li> <li>describes management practices in rearing rabbits.</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>listens to stories about rabbits.</li> <li>writes/ writes in Braille names of the external parts of a rabbit correctly.</li> <li>writes/ writes in Braille names of the major parts of a hutch correctly.</li> <li>spells/finger spells the</li> </ul>	<p><b>Rabbits</b></p> <ul style="list-style-type: none"> <li>External parts of a rabbit</li> <li>Types of rabbits:               <ul style="list-style-type: none"> <li>Domestic (exotic and local)</li> <li>Wild</li> </ul> </li> <li>Management practices of rabbits:               <ul style="list-style-type: none"> <li>Housing</li> <li>Feeding</li> <li>Breeding</li> <li>Hygiene</li> <li>Keeping records</li> </ul> </li> <li>Common diseases               <ul style="list-style-type: none"> <li>Signs and symptoms of diseases in rabbits</li> </ul> </li> <li>Control and treatment of</li> </ul>	<ul style="list-style-type: none"> <li>Studying a live rabbit, writing down some of its habits</li> <li>Drawing and labelling the external structure of a rabbit</li> <li>Writing down common diseases of rabbits</li> <li>Demonstrating activities of preventing and controlling diseases and pests</li> <li>Interpreting data from a</li> </ul>	<p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Making choices</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>Evaluating facts</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>Finding different ways of doing things</li> </ul> <p><b>Empathy</b></p>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• names common pests and diseases for rabbits.</li> <li>• describes control and treatment methods of diseases and parasites of rabbits.</li> <li>• demonstrates proper record keeping practices.</li> <li>• identifies the types and breeds of cattle.</li> <li>• names the external features of a cow and a bull.</li> <li>• participates in management of cattle.</li> <li>• describes mating, gestation and calving in cattle.</li> </ul>	<p>words related to rabbit keeping correctly.</p> <ul style="list-style-type: none"> <li>• writes/ writes in Braille information of a record instrument.</li> <li>• pronounces and spells/finger spells types and breeds of cattle.</li> <li>• writes/ writes in Braille correct information on pests, diseases and practices which harm cattle.</li> </ul>	<p>diseases and pests of rabbits</p> <p><b>Cattle</b></p> <ul style="list-style-type: none"> <li>• External feature of a cow and a bull</li> <li>• Types of cattle               <ul style="list-style-type: none"> <li>- Dairy, beef &amp; dual purpose cattle</li> </ul> </li> <li>• Breeds of cattle:               <ul style="list-style-type: none"> <li>- Indigenous (local), exotic and cross breed</li> </ul> </li> <li>• Management practices               <ul style="list-style-type: none"> <li>- housing, grazing, watering, milking and milk products (butter cheese, ghee, yoghurt)</li> </ul> </li> <li>• Caring for cattle</li> <li>• Mating, gestation period and calving</li> <li>• Cattle pests and diseases               <ul style="list-style-type: none"> <li>- Causes and spread</li> <li>- Signs and symptoms</li> <li>- Control and treatment</li> </ul> </li> <li>• Practices that harm cattle</li> <li>• Starting a livestock farm</li> </ul>	<p>record instrument</p> <ul style="list-style-type: none"> <li>• Identifying different types and breeds of cattle</li> <li>• Drawing/ describing and labelling the external features of a cow and a bull</li> <li>• Drawing/ describing different breeds of cattle</li> <li>• Demonstrating best practices to care for cattle</li> <li>• Describing the characteristics of a good house for cattle</li> </ul>	<ul style="list-style-type: none"> <li>• Taking care of animals</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> <li>• Care</li> <li>• Appreciation</li> <li>• Love</li> <li>• Concern</li> </ul>

## Suggested Competences for Assessment

The learner:

- i) names breeds and types of rabbits and cattle.
- ii) draws/describes and labels the different types of hutches of rabbits.
- iii) states reasons why people keep rabbits and cattle.
- iv) names diseases and parasites in rabbits and cattle.
- v) describes different ways of managing rabbits and cattle.
- vi) starts up a rabbit keeping project.

## Hints for the Teacher

- i) Let learners have an excursion to a nearby farm, make and record their observations.
- ii) If possible, bring a live rabbit to class to enable learners observe and discuss about its features.
- iii) Let learners draw/model a rabbit and cattle using local materials.
- iv) Guide learners to make a rabbit hutch and cattle shed.
- v) Encourage learners to keep records on all activities they do on the farm.
- vi) Help learners to describe practices that harm domestic animals.
- vii) Instruct learners on how to start a livestock farm.

## Topic 4: Bacteria and Fungi

Duration: 08 Periods

### Overview

In this topic, the teacher is supposed to create awareness in learners about bacteria and fungi as disease causing agents. It is also important to help learners understand that some bacteria and fungi are useful in our day-to-day life experiences.

### Learning Outcome

By the end of this topic, the learner should be able to develop scientific knowledge and skills about bacteria and fungi as disease causing agents and show how they can be used to solve problems in life.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>describes bacteria and fungi.</li> <li>states the characteristics of bacteria and fungi.</li> <li>discusses ways of preventing, controlling bacterial and fungal diseases.</li> <li>discusses ways of treating bacterial and fungal diseases.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>acts a dialogue on useful and harmful bacteria/fungi.</li> <li>reads/signs and spells/finger spells words, sentences and stories about bacteria and fungi correctly.</li> <li>writes/ writes in Braille words, sentences and stories about bacteria and fungi correctly.</li> </ul>	<ul style="list-style-type: none"> <li><b>Bacteria</b> <ul style="list-style-type: none"> <li>What they are</li> <li>Where they are found</li> <li>Where they breed</li> </ul> </li> <li><b>Nature of bacteria</b> <ul style="list-style-type: none"> <li>Harmful bacteria</li> <li>Harmless useful bacteria</li> </ul> </li> <li>Prevention, control and treatment of bacterial diseases</li> <li>Fungi</li> </ul>	<ul style="list-style-type: none"> <li>Describing bacteria and fungi</li> <li>Mentioning different places where bacteria and fungi are found and breed</li> <li>Discussing ways of preventing, controlling and treating bacterial and fungal diseases</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Making the use of the available information</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>Initiating new ideas</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Making choices</li> <li>Giving instructions</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>distinguishes between fungi and bacteria that are harmless and harmful.</li> </ul>		<ul style="list-style-type: none"> <li>- What are they</li> <li>- Where they are found</li> <li>- Examples of fungi</li> <li>- Harmful</li> <li>- Harmless/useful</li> <li>• Uses of fungi               <ul style="list-style-type: none"> <li>- mushroom for food</li> <li>- Moulds for penicillin drug</li> <li>- Yeast for brewing</li> </ul> </li> <li>• Dangers of fungi</li> <li>• Prevention and control of disease caused by fungi</li> </ul>		<p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Concern</li> <li>• Acceptance</li> <li>• Fluency</li> <li>• Responsibility</li> </ul>

### Suggested Competences for Assessment

The learner:

- names the different types of bacteria and fungi.
- states the uses of bacteria and fungi.
- lists ways of treating bacterial and fungal diseases.
- writes dangers of fungi and bacteria.
- compares bacteria to fungi.
- draws and labels parts of a mushrooms.
- draws useful bacteria.

### **Hints for the Teacher**

- i) Conduct the lesson practically by visiting places where fungi and bacteria are commonly found and record the observations.
- ii) Guide learners to discuss the effects of fungi and bacteria in our environment.
- iii) Guide learners to explain the importance of fungi and bacteria in life.
- iv) Use instructional materials like real objects to conduct the lessons meaningfully.

## THEME 2: THE ENVIRONMENT

### Topic 1: Components of the Environment (Soil)

Duration: 11 Periods

#### Overview

Soil is a major component of the environment so learners should be helped to study it. Soil is composed of many living and non-living substances which make things co-exist. The learners should be helped to out how soil helps people to survive and its relationship with other components of the environment.

#### Learning Outcomes

The learner should be able to:

- i) recognise causes of soil degradation.
- ii) demonstrate good practices of conserving and protecting soil.
- iii) appreciate the importance of soil in nature.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• carries out an experiment on soil formation.</li> <li>• identifies the types of soil.</li> <li>• describes properties of soil.</li> <li>• analyses the importance of soil.</li> <li>• describes the types and causes of soil erosion.</li> <li>• states the effects of harmful materials on the soil.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• pronounces and spells/finger spells correctly the types of soil.</li> <li>• recites poems and rhymes about soil.</li> <li>• sings songs about soil.</li> <li>• reads/signs words, sentences and relevant stories about soil.</li> <li>• writes/ writes in Braille</li> </ul>	<ul style="list-style-type: none"> <li>• Soil               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Soil formation (weathering of rock &amp; decomposition of matter)</li> </ul> </li> <li>- Components of soil (particles, air, organic matter, organisms &amp; water)</li> <li>• Types of soil:               <ul style="list-style-type: none"> <li>- Loam, clay &amp; sand</li> <li>- Properties of each type of soil</li> </ul> </li> <li>• Importance of soil</li> </ul>	<ul style="list-style-type: none"> <li>• Listing the components of soil</li> <li>• Identifying types of soil</li> <li>• Experimenting on the properties of the soil</li> <li>• Discussing the importance of soil</li> <li>• Discussing ways of improving soil fertility</li> <li>• Practicing methods of soil conservation</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Making use of available information</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Initiating new ideas</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Finding different strategies</li> </ul> <p><b>Self-esteem</b></p> <ul style="list-style-type: none"> <li>• Expressing likes and dislikes</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• demonstrates ways of soil conservations .</li> <li>• states ways of improving soil fertility.</li> <li>• investigates the advantages and disadvantages of artificial and natural fertilizers.</li> <li>• demonstrates the best ways of making compost manure.</li> </ul>	<p>words, sentences and stories about soil.</p>	<ul style="list-style-type: none"> <li>- Plant growth, construction, pottery, habitat and mining</li> <li>• Soil erosion:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Types, causes, agents, control and prevention of soil erosion</li> </ul> </li> <li>• Effects of these harmful materials on the soil:               <ul style="list-style-type: none"> <li>- Broken glasses/tins, plastics, PVC, polythene, chemicals and oils</li> </ul> </li> <li>• Soil conservation               <ul style="list-style-type: none"> <li>- What it is &amp; methods of soil conversation</li> </ul> </li> <li>• Soil fertility               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Ways of improving soil fertility; chemical fertilizers, natural fertilizers (e.g. compost manure, farm yard manure, green manure, organic mulches)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Making compost manure</li> </ul>	<ul style="list-style-type: none"> <li>• Care</li> <li>• Concern</li> <li>• Confidence</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Advantages and disadvantages of artificial and natural fertilizers</li> <li>- Project: making compost manure</li> </ul>		

### Suggested Competences for Assessment

The learner:

- i) names the different types of soil.
- ii) writes different methods of conserving soil.
- iii) draws and labels a diagram showing components of soil.
- iv) discusses the agents of soil erosion.
- v) writes down natural and artificial fertilizers.
- vi) names different things made from soil.
- vii) describes the causes of soil erosion.
- viii) lists different ways of controlling soil erosion.

### Hints for the Teacher

- i) Carry out an experiment to show the components of soil.
- ii) Guide learners to draw and label the diagram showing the components of soil.
- iii) Guide learners to collect different types of soil and note their differences.
- iv) Conduct an experiment to find out the best soil for farming.
- v) Encourage learners to remove harmful materials from the soil.
- vi) Encourage learners to draw and model different things made from soil.
- vii) Let learners do soil conservation practices in the school garden.
- viii) In pairs and groups encourage learners to discuss ways of improving soil fertility.

## Topic 2: Weather Changes Around Us

Duration: 15 Periods

### Overview

At this level, learners should be guided to study weather changes, record weather measurements and focus on a simple study of rain formation. The learners will study the changes in weather and climate and how they affect our environment. The topic will also help learners to develop the skills of observations, recording and interpretation of weather.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) make and interpret weather records accurately.
- ii) demonstrate basic knowledge and simple skills for managing changes in the environment.

Subject Competences	Language Competences	Content	Suggested Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• describes the changes in the weather.</li> <li>• describes weather patterns and climate changes in different parts of Uganda.</li> <li>• makes accurate measurements of rainfall.</li> <li>• distinguishes between rain and rainfall, weather and climate.</li> <li>• uses a thermometer</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• reads/signs/spells/finger spells words related to weather.</li> <li>• writes/ writes in Braille the words related to weather.</li> <li>• draws pictures related to weather.</li> <li>• draws pictures of the water cycle.</li> <li>• names the parts of a thermometer.</li> <li>• spells/finger spells agents of change correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Changes in the weather:               <ul style="list-style-type: none"> <li>- Sunshine</li> <li>- Clouds</li> <li>- Rain</li> <li>- Wind</li> <li>- Temperature</li> </ul> </li> <li>• The water cycle:               <ul style="list-style-type: none"> <li>- Water sources</li> <li>- Water in air</li> </ul> </li> <li>• Rainfall:               <ul style="list-style-type: none"> <li>- Rain clouds</li> <li>- Effects of rain</li> <li>- Importance of rainfall</li> </ul> </li> <li>• Weather chart</li> <li>• Effects of weather changes to people, animals and plants               <ul style="list-style-type: none"> <li>- Increases in size, increases</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Making a weather chart</li> <li>• Recording the daily weather changes on the charts</li> <li>• Drawing and labelling the rain /water cycle</li> <li>• Drawing and labelling a weather instrument</li> <li>• Naming and</li> </ul>	<p><b><u>Life Skills</u></b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Articulation</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Selecting and evaluating information</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Innovativeness</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Caring for oneself</li> </ul> <p><b><u>Values</u></b></p> <ul style="list-style-type: none"> <li>• Patience</li> </ul>

<p>to measure temperature.</p> <ul style="list-style-type: none"> <li>• draws a simple weather chart.</li> <li>• describes how changes take place in the environment.</li> <li>• identifies the different changes in the environment.</li> <li>• names agents of change.</li> </ul>	<ul style="list-style-type: none"> <li>• recites poems of change.</li> <li>• reads/signs words and sentences about types of changes.</li> <li>• writes/ writes in Braille words and sentences about environmental changes.</li> </ul>	<p>in temperature, mountain formation, rain formation, change in state, new things are formed, placement of things</p> <ul style="list-style-type: none"> <li>• Biological changes:             <ul style="list-style-type: none"> <li>- What are they (growth in plants and animals)</li> <li>- Managing body change; body care and guidance</li> </ul> </li> <li>• Chemical changes</li> <li>• What are they (rusting, fermentation, rotting and decaying)</li> <li>• Physical changes</li> <li>• What are they (changes in weather, changes in states of matter, landslides, placement faulting/ volcanic actions)</li> </ul>	<p>discussing the agents of weather</p>	<ul style="list-style-type: none"> <li>• Endurance</li> </ul>
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## **Suggested Competences for Assessment**

The learner:

- i) names the elements of weather.
- ii) mentions the different types of clouds.
- iii) mentions the main source of heat in the rain/water cycle.
- iv) draws and labels weather instruments.

## **Hints for the Teacher**

- i) Have an outdoor lesson to enable learners observe the weather.
- ii) Have an excursion to a weather station to observe the weather instruments used in measuring weather.
- iii) Guide learners to make models of instruments seen/observed at the weather station.
- iv) Guide learners to discuss the effects of weather changes to people, animals and plants.



## THEME 3: HUMAN HEALTH

### Topic 1: Personal Hygiene

Duration: 5 Periods

#### Overview

Personal hygiene is a very important element in one's life. It is all about keeping clean in every aspect of our lives. Learners need to increase their awareness of personal hygiene i.e. keeping the body, clothing and beddings clean to develop desirable habits for good personal hygiene. Simple health messages can be displayed in the classroom and around the compound to encourage good health habits.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) demonstrate good practice of keeping clean.
- ii) appreciate the importance of keeping clean.

Subject Competences	Language Competences	Content	Suggested Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• states why we keep clean.</li> <li>• identifies ways of keeping clean.</li> <li>• demonstrates practices of keeping clean.</li> <li>• discusses what can go wrong if we do not keep clean.</li> <li>• draws and labels things we use to keep clean.</li> </ul>	<p>The Learner:</p> <ul style="list-style-type: none"> <li>• talks about the need to keep clean.</li> <li>• tells/retells stories on keeping clean.</li> <li>• reads/signs and writes/brailles words related to why we keep clean.</li> <li>• writes/brails names of things we use to keep clean correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Ways of keeping clean; body, clothing and beddings</li> <li>• Things used for keeping our bodies clean.</li> <li>• Importance of keeping our bodies clean:               <ul style="list-style-type: none"> <li>- Remove dirt</li> <li>- Remove germs</li> <li>- Avoid bad smell</li> <li>- Keep healthy</li> <li>- Be smart</li> </ul> </li> <li>• What can go wrong if we</li> </ul>	<ul style="list-style-type: none"> <li>• Talking about what we do each day to keep clean</li> <li>• Listing things we use to keep clean</li> <li>• Practicing activities for keeping ourselves clean; cutting nails, brushing teeth,</li> </ul>	<p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Caring for oneself</li> </ul> <p><b>Self-esteem</b></p> <ul style="list-style-type: none"> <li>• Self-appreciation</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> </ul> <p><b>VALUES</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Responsibility</li> <li>• Concern</li> <li>• Appreciation</li> <li>• Acceptance</li> </ul>

Subject Competences	Language Competences	Content	Suggested Learning Activities	Life Skills and Values
		do not keep clean: - Infection by germs - Untidy appearance - Bad smell - Discomfort	washing the body	

### Suggested Competences for Assessment

The learner:

- i) writes hygiene practices.
- ii) draws and labels things used for keeping the body clean.
- iii) states the activities done to keep our bodies clean.
- iv) names ways in which beddings and clothing can be kept clean.
- v) writes simple health messages to be displayed in the class and school.

### Hints for the Teacher

- i) Let learners practise some personal hygiene e.g. washing hands, brushing of teeth, cutting nails.
- ii) Encourage group work to enable learners generate ideas and then report to the whole class.
- iii) Give learners time to draw and label items used for keeping clean.
- iv) Guide learners to discuss the advantages of keeping the body clean.
- v) Let learners discuss the disadvantages of not keeping the body clean.
- vi) Help learners to write health messages for display in the class and compound.

## Topic 2: Food and Nutrition

Duration: 15 Periods

### Overview

Food is important for growth and development of living things. The learners should be encouraged/guided to carry out practical activities such as collecting, talking about and grouping foods of different food values. Help learners to understand what their bodies require to be healthy and the diseases that occur when there are deficiencies in their diet. They should be guided on how food becomes contaminated and how to prevent this.

Both plants and animals require food for growth and development. Learners are expected to learn healthy nutritional habits and the importance of providing appropriate class of food to different vulnerable groups of peoples in their community.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop the ability and skills of handling food safely, classifying and appreciating food values and recognising diseases caused by food deficiency.
- ii) identify vulnerable groups of people in their community and recommend appropriate class of food to meet their nutritional needs.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• identifies classes of food and their values.</li> <li>• describes the uses of food value to the body.</li> <li>• draws and labels pictures of different foods.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• reads/ signs and writes/ writes in Braille words, sentences and stories concerning food values.</li> <li>• recites rhymes about uses of food to us.</li> <li>• writes/ writes in</li> </ul>	<ul style="list-style-type: none"> <li>• Classes of food – 3Gs               <ul style="list-style-type: none"> <li>- Go foods</li> <li>- Glow foods</li> <li>- Grow foods</li> </ul> </li> <li>• Food values:               <ul style="list-style-type: none"> <li>- Carbohydrates</li> <li>- Vitamins and minerals</li> <li>- Proteins</li> <li>- Fats</li> </ul> </li> <li>• Uses of food:               <ul style="list-style-type: none"> <li>- Growth</li> <li>- Energy</li> <li>- Protection</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Collecting different types of food</li> <li>• Classifying and naming different types of food</li> <li>• Practicing how to handle food properly</li> </ul>	<b>Critical thinking</b> <ul style="list-style-type: none"> <li>• Making the best use of available information</li> </ul> <b>Empathy</b> <ul style="list-style-type: none"> <li>• Caring for others</li> <li>• Giving instructions</li> <li>• Making choices</li> </ul> <b>Effective communication</b>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• talks about deficiency diseases.</li> <li>• prepares local dishes using common foods in the community.</li> <li>• describes how food gets contaminated.</li> <li>• practices proper handling of food.</li> <li>• explains traditional customs and their advantages and disadvantages to the community.</li> <li>• explains what breast feeding is.</li> <li>• states advantages and disadvantages of breast feeding.</li> <li>• discusses what bottle feeding is.</li> <li>• mentions advantages and disadvantages</li> </ul>	<ul style="list-style-type: none"> <li>• Braille names of different foods correctly.</li> <li>• writes/writes in Braille and reads/ signs a story about food preparation.</li> <li>• recites rhymes about dishes for vulnerable people.</li> <li>• spells/ finger spells key words related to some dishes for the vulnerable people correctly.</li> <li>• writes/writes in Braille food diets for vulnerable people.</li> </ul>	<ul style="list-style-type: none"> <li>• Deficiency diseases:               <ul style="list-style-type: none"> <li>- Night blindness</li> <li>- Kwashiorkor</li> <li>- Marasmus</li> <li>- Goiter</li> <li>- Beriberi</li> <li>- Scurvy</li> <li>- Rickets</li> </ul> </li> <li>• How foods get contaminated:               <ul style="list-style-type: none"> <li>- Dirty hands</li> <li>- Dirty containers</li> <li>- Dusty/dirty surrounding</li> <li>- Flies</li> </ul> </li> <li>• Prevention of food contamination:               <ul style="list-style-type: none"> <li>- Cooking well</li> <li>- Covering food</li> <li>- Serving in clean containers</li> <li>- Serving in clean environment</li> </ul> </li> <li>• Preparing simple dishes</li> <li>• Traditional customs &amp; food taboos in the communities:               <ul style="list-style-type: none"> <li>- What taboos are</li> <li>- Effects of taboos in nutrition</li> </ul> </li> <li>• Food consumption patterns in the community:               <ul style="list-style-type: none"> <li>- Staple foods of different</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Describing signs and symptoms of deficiency diseases</li> <li>• Naming diseases caused by eating contaminated food</li> <li>• Preparing local dishes</li> <li>• Explaining why vulnerable people need special feeding</li> <li>• Discussing the customs and food taboos in society</li> <li>• Comparing advantages and disadvantages of food taboos</li> <li>• Identifying food for the vulnerable people</li> </ul>	<ul style="list-style-type: none"> <li>• Audibility</li> <li>• Fluency</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Responsibility</li> <li>• Love</li> <li>• Respect</li> <li>• Patience</li> <li>• Articulation</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
s of bottle feeding. • identifies vulnerable groups of people in the community. • lists different food patterns for different communities .		communities; other foods of different communities • Vulnerable groups of people: - Who they are; (weaning babies, sick, elderly, convalescent, breast feeding mothers, pregnant mothers and their unborn babies; food for the vulnerable people • Breast feeding: - What it is - Advantages and disadvantages of breast feeding to: mother, baby, family • Bottle feeding: - What it is • Advantage and disadvantage of bottle feeding to mothers, baby and family		

### Suggested Competences for Assessment

The learner:

- i) writes advantages and disadvantages of:
  - a) breast feeding
  - b) bottle feeding

- c) food taboos
- ii) lists 3 groups of vulnerable people in the community.
- iii) draws 5 types of staple foods for different communities.
- iv) draws and labels different people with deficiency diseases.

### **Hints for the Teacher**

- i) Let learners collect different types of food and group them under the three G's.
- ii) Guide learners to discuss food deficiency diseases.
- iii) Lead learners to discuss ways through which food can be contaminated.
- iv) In groups, help learners to talk about the advantages and disadvantages of breast feeding and better feeding and report back to class.
- v) Involve learners in the preparation of foods for the vulnerable groups of people.

## TERM 2

### THEME 3: HUMAN HEALTH

#### Topic 3: Sanitation

Duration: 5 Periods

#### Overview

Sanitation is all about keeping our surrounding clean. Sanitation concerns in our community should be addressed aggressively if diseases are to be reduced. Communities should be equipped with the skills to handle sanitation challenges. Learners should be aware that they too can help make a difference by being aware of the importance of good sanitation and carrying out activities of keeping the environment clean. This topic will help learners to learn about germs and diseases and gain knowledge on how to keep our homes clean.

#### Learning Outcomes

By the end of this topic, th learner should be able to:

- i) understand the importance of proper sanitation practices and basic habits to avoid germs and diseases.
- ii) demonstrate knowledge and skills of keeping proper sanitation for healthy living.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• states what sanitation is.</li> <li>• mentions the importance of proper sanitation.</li> <li>• explains what germs are, where they are found and how they spread diseases.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• reads/ signs and writes/ writes in Braille words, sentences, stories.</li> <li>• recites rhymes and poems about keeping the local environment clean.</li> </ul>	<ul style="list-style-type: none"> <li>• Sanitation and its importance</li> <li>• Sanitation concerns</li> <li>• Germs and diseases:               <ul style="list-style-type: none"> <li>- What they are</li> <li>- Where they are found</li> <li>- How they are spread</li> <li>- The 4Fs germ path</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Surveying the sanitation situation in their environment</li> <li>• Writing a list of identified sanitation concerns</li> <li>• Describing the 4Fs germ path to rest of the class</li> </ul>	<p><b>Life Skills</b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Fluency</li> <li>• Articulation</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Knowing one's position</li> <li>• Responsibility</li> <li>• Expressing likes and dislikes</li> <li>• Volunteering</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• describes the different ways of maintaining proper sanitation.</li> <li>• identifies toilets, latrines and potty.</li> <li>• draws and labels the types of latrines and toilets.</li> <li>• mentions the features of the different types of latrines and toilets.</li> <li>• describes importance of using a latrines/ toilet correctly.</li> <li>• lists various cleaning materials and supplies.</li> <li>• demonstrate s proper use and care of latrines and toilets by using; toilet paper, water, detergents, brooms, brushes and toilet/latrine covers.</li> </ul>	<ul style="list-style-type: none"> <li>• writes/ writes in Braille sentences about activities to keep the environment clean.</li> <li>• reads/signs words, sentences and stories about latrines and toilets.</li> <li>• acts out a dialogue about latrines and toilets management .</li> </ul>	<p>(Faeces, Flies, Food, Fingers)</p> <ul style="list-style-type: none"> <li>- How they cause rotting</li> <li>• Sanitation practices:               <ul style="list-style-type: none"> <li>- Sweeping the compound</li> <li>- Slashing the compound</li> <li>- Trimming</li> <li>- Covering potholes in the compound</li> <li>- Smearing the houses</li> <li>- Dusting houses</li> <li>- Proper rubbish disposal</li> <li>- Mopping houses</li> </ul> </li> <li>• Toilets and latrines:               <ul style="list-style-type: none"> <li>- What toilets and latrines are, the VIP latrine and ECOSAN;</li> <li>- Characteristics and differences of (ordinary) latrine and VIP</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Practicing proper disposal of rubbish in the school and community</li> <li>• Carrying out activities of keeping the environment clean e.g. smoking latrines, digging rubbish pits, draining stagnant water</li> <li>• Discussing proper use and maintenance of toilets and latrines</li> <li>• Practising proper washing of hands after latrine/ toilet use</li> <li>• Composing a poem on effects of germs</li> <li>• Locating and picking liter around the school compound</li> </ul>	<p><b>Self-esteem</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Evaluating facts</li> </ul> <p><b>Assertiveness</b></p> <ul style="list-style-type: none"> <li>• Giving reasons for actions taken</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> <li>• Care</li> <li>• Appreciation</li> <li>• Volunteering</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
		- The water closet (water-borne toilets)		

### Suggested Competences for Assessment

The learner:

- i) names activities that make a home and school environment clean.
- ii) writes ways through which germs are spread.
- iii) draws and labels foods that can be eaten raw.
- iv) writes ways in which food gets dirty.
- v) draws and labels the 4Fs germ path.
- vi) lists different cleaning materials.
- vii) explains the importance of toilets, latrines and potty.

### Hints for the Teacher

- i) Let learners discuss what germs and diseases are.
- ii) Engage learners in activities that help them in keeping their environment clean.
- iii) Group learners to discuss ways through which germs are spread.
- iv) Let learners draw and label the 4Fs germ path.
- v) Tell learners to bring empty containers and materials from cleaning suppliers.

## Topic 4: Communicable Intestinal Diseases and Worm Infestation

Duration: 10 Periods

### Overview

Diseases and worms infections are some of the things which can cause ill health. Learners should be made aware of the types of worms and diseases and their modes of spread. They should be guided to develop basic skills of managing the diseases where prevention has failed. They should appreciate the importance of avoiding diseases and worms infections especially through proper sanitation and proper personal hygiene.

### Learning Outcome

By the end of this topic, the learner should be able to manage worm infestations through proper hygiene and sanitation.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>identifies and names diarrhoeal diseases.</li> <li>describes the causes of diarrhoeal diseases and how they can be spread.</li> <li>demonstrates how to mix oral rehydration solution (ORS) and make salt-sugar solution (SSS).</li> </ul>	The learner: <ul style="list-style-type: none"> <li>Reads/ signs and writes/ writes in Braille words, sentences and stories about worms infestation.</li> <li>Recites rhymes, poems and acts dialogues related to worms and diseases.</li> <li>Writes/ writes in Braille names of different types of worms.</li> </ul>	<ul style="list-style-type: none"> <li>Diarrhoeal diseases:               <ul style="list-style-type: none"> <li>- Diarrhoea</li> <li>- Dysentery</li> <li>- Cholera</li> <li>- Typhoid</li> </ul> </li> <li>Causes of intestinal common communicable diseases:               <ul style="list-style-type: none"> <li>- Bacteria</li> <li>- Virus</li> <li>- Protozoa</li> <li>- Worms</li> </ul> </li> <li>How some common intestinal communicable diseases are spread</li> </ul>	<ul style="list-style-type: none"> <li>Naming common communicable diseases</li> <li>Practicing prevention activities of cleaning latrine, boiling water</li> <li>Drawing and labeling different types of worms</li> <li>Making salt-sugar solution (SSS) ORS</li> </ul>	<b>Life Skills</b> <b>Critical thinking</b> <ul style="list-style-type: none"> <li>Making the best use of available information</li> </ul> <b>Creative thinking</b> <ul style="list-style-type: none"> <li>Initiating new ideas</li> </ul> <b>Self-awareness</b> <ul style="list-style-type: none"> <li>Evaluating facts</li> </ul> <b>Problem solving</b> <ul style="list-style-type: none"> <li>Making choices</li> </ul> <b>Empathy</b> <ul style="list-style-type: none"> <li>Supporting others</li> <li>Comforting</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• draws and labels different type of worms.</li> <li>• explains how worms enter the body.</li> <li>• describes signs and symptoms of worms infestations.</li> <li>• describes treatment of worms and intestinal diseases.</li> <li>• explains ways of preventing worm infestations.</li> </ul>	<ul style="list-style-type: none"> <li>• Reads and writes words, sentences and stories about worms.</li> <li>• Composes a poem on dangers of worm infestations.</li> </ul>	<p>through the 4Fs</p> <ul style="list-style-type: none"> <li>• Signs and symptoms of common intestinal communicable diseases: diarrhoea, dysentery, cholera and typhoid</li> <li>• Treatment and prevention of common communicable diseases:                             <ul style="list-style-type: none"> <li>- Mixing and making oral rehydration salts/ solution (ORS)</li> <li>- Making salt-sugar solutions (SSS)</li> <li>- Eating well-prepared foods</li> <li>- Drinking boiled water</li> <li>- Proper personal hygiene</li> <li>- Seek medical advice</li> </ul> </li> <li>• Worm infestation</li> </ul>		<p><b><u>Values</u></b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Sharing</li> <li>• Responsibility</li> <li>• Concern</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Round worms (hook worms, askaris)</li> <li>- Tape worms</li> <li>- Thread worms (pin worms)</li> <li>• Causes of intestinal common communicable diseases:               <ul style="list-style-type: none"> <li>- Bacteria,</li> <li>- Virus,</li> <li>- Protozoa,</li> <li>- Worms</li> </ul> </li> <li>- Ways of entry in to the body</li> <li>• Signs and symptoms of worm infestation and diseases:               <ul style="list-style-type: none"> <li>- Passing watery stools</li> <li>- Stomach pain</li> <li>- Weakness</li> <li>- Loss of appetite</li> <li>- Loss of weight</li> <li>- Lack of blood</li> </ul> </li> <li>• Treatment and prevention of worm infestations:</li> </ul>		

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Well-cooked meat</li> <li>- Wear shoes and sandals</li> <li>- Wash all foods eaten raw</li> </ul>		

### Suggested Competences for Assessment

The learner:

- i) states what diarrhoea is.
- ii) names the 3Ds.
- iii) writes the agents that cause intestinal communicable diseases.
- iv) mixes oral rehydration solutions.
- v) draws and labels types of worms.
- vi) writes about signs, symptoms and prevention of worms infestations and diseases.

### Hints for the Teacher

- i) Let learners brainstorm on diarrhoea diseases.
- ii) Guide learners to discuss causes of communicable diseases.
- iii) In groups, let learners discuss signs, symptoms and prevention of worm infestation and diseases.

## Topic 5: Vectors and Diseases

Duration: 6 Periods

### Overview

Vectors play an important role in the spread of diseases and learners must recognise the common vectors in their environment. To prevent the diseases caused by these vectors, learners should know their characteristics, their life cycles and the disease they spread.

### Learning Outcome

By the end of this topic, the learner should be able to identify, prevent and control disease vectors for good health.

Subject Competence	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>names disease vectors.</li> <li>states characteristics of disease vectors.</li> <li>describes the life cycle of disease vectors.</li> <li>explains how vectors spread diseases.</li> <li>draws and labels diagrams of the different disease vectors.</li> <li>identifies the diseases spread by vectors.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>spells/finger spells disease vectors in local language and English correctly.</li> <li>reads/signs and writes/ writes in Braille stories about vectors.</li> <li>acts dialogues about preventing the diseases spread by vectors.</li> <li>writes/ writes in Braille names of the different types of</li> </ul>	<ul style="list-style-type: none"> <li>Common vectors:               <ul style="list-style-type: none"> <li>Bed bugs</li> <li>Cockroaches</li> <li>Ticks</li> <li>Fleas</li> <li>Mites</li> <li>Mosquitoes</li> <li>Rats</li> <li>Tsetse flies</li> <li>Houseflies</li> </ul> </li> <li>Characteristics of vectors:               <ul style="list-style-type: none"> <li>Body structure</li> <li>Habitat</li> <li>Feeding habits</li> </ul> </li> <li>The life cycle of mosquitoes, cockroaches, houseflies and tsetse flies</li> <li>How vectors spread diseases:               <ul style="list-style-type: none"> <li>Bites</li> <li>Dirty body</li> <li>Dirty environment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Naming disease vectors and their life cycles</li> <li>Identifying and naming the feeding habits of some disease vectors</li> <li>Demonstrating activities to prevent and control the spread of common vectors in the environment</li> <li>Matching names of diseases</li> </ul>	<p><b>Life Skills</b></p> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>Innovativeness</li> <li>Initiating new ideas</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> <li>Making the best use of available information</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>Caring for oneself</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>Confidence</li> </ul> <p><b>Values</b></p>

Subject Competence	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>demonstrates correct methods of prevention and control of diseases spread by vectors.</li> </ul>	disease vectors.	<ul style="list-style-type: none"> <li>Diseases associated with each vector:                             <ul style="list-style-type: none"> <li>Tsetse flies - sleeping sickness in humans and nagana in animals</li> <li>Anopheles mosquito - malaria</li> <li>Culex - yellow fever</li> <li>Aedes mosquito - elephantiasis</li> <li>Houseflies - diarrhea and eye diseases</li> <li>Cockroaches - diarrhoea and dysentery</li> </ul> </li> <li>Prevention and control:                             <ul style="list-style-type: none"> <li>Proper hygiene</li> <li>Covering food</li> <li>Spraying</li> <li>Biological control</li> <li>Sleeping under mosquito nets</li> <li>Drinking boiled water/ treated water</li> <li>Regular medical treatment</li> <li>Improved diet</li> <li>Use of safe water</li> <li>Improved personal hygiene</li> <li>Proper waste disposal</li> </ul> </li> </ul>	with their vectors <ul style="list-style-type: none"> <li>Modeling life cycle of some disease vectors</li> </ul>	<ul style="list-style-type: none"> <li>Responsibility</li> <li>Sharing</li> <li>Care</li> <li>Concern</li> </ul>

## **Suggested Competences for Assessment**

The learner:

- i) states what vectors are.
- ii) mentions vectors that cause malaria and diarrhoea.
- iii) explains how houseflies spread diseases.
- iv) states the diseases tsetseflies spread to:
  - a) people
  - b) animals
- v) outlines the differences between ticks and tsetse flies.
- vi) draws and labels the life cycles of a; cockroach, tick, house fly and a mosquito.

## **Hints for the Teacher**

- i) Guide learners to name different vectors.
- ii) Involve learners in discussing, drawing and labelling life cycles of different vectors.
- iii) Engage learners in the cleaning of the school environment to remove objects that can hold water.
- iv) In groups, encourage learners to discuss the treatment of different diseases caused by vectors and report back.
- v) Let learners draw and label parts of the different vectors, name diseases they cause and how to control them.



## Topic 6: Accidents, Poisoning and First Aid

Duration: 13 Periods

### Overview

Accidents are sudden bad happenings which result in injuries. They include traffic accidents, cuts, falls, poisoning, burns, animal and insect bites. Many accidents are caused by carelessness and poor conditions in which we live, walk or work.

Learners should be aware of what should be done when an accident occurs and the different types of injuries that can happen.

Each school should have a first aid kit and the teacher should show this to the learners explaining what it contains and how it is used. A study of poisoning is included in this topic, its causes, types and how to manage it.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) identify and manage common accidents.
- ii) practise habits which help to avoid accidents.
- iii) develop the necessary skills and knowledge for applying first aid.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names the common accidents and poisoning at home, on the way to school and at school.</li> <li>• describes burns and scalds.</li> <li>• discusses causes of burns and scalds.</li> <li>• mentions ways by which burns and scalds can be prevented and treated.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• mentions examples of common accidents which happened in the community.</li> <li>• reads/signs and writes/writes in Braille words, sentences and stories about accidents.</li> <li>• spells/finger spells the different</li> </ul>	<ul style="list-style-type: none"> <li>• Accidents at home, on the way and at school:                             <ul style="list-style-type: none"> <li>- Causes</li> <li>- Types of injuries</li> </ul> </li> <li>• Ways of preventing accidents:                             <ul style="list-style-type: none"> <li>- Safety rules on the road</li> </ul> </li> <li>• Burns and scalds                             <ul style="list-style-type: none"> <li>- What burns and scalds are</li> <li>- Common causes</li> <li>- Prevention and first aids</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Role playing how to behave safely when walking on a busy street/road</li> <li>• Explaining accidents and first aid</li> <li>• Mentioning common causes of accidents at home, on the road and at school</li> <li>• Describing and drawing pictures depicting</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> <li>• Giving reasons for actions taken</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> <li>• Taking decisions</li> </ul> <p><b>Coping with emotions</b></p> <ul style="list-style-type: none"> <li>• Recognising emotions</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>states the causes, prevention and treatment of fever.</li> <li>describes drowning and near drowning.</li> <li>mentions causes, prevention and first aid for fever, convulsion, drowning and near drowning.</li> <li>states the causes of accidents and poisoning.</li> <li>demonstrates current practices of avoiding accidents.</li> <li>demonstrates how to take care of an injured person and one who has taken poison.</li> </ul>	<ul style="list-style-type: none"> <li>types of accidents correctly.</li> <li>reads/signs words, sentences and stories about accidents and first aids.</li> <li>writes/writes in Braille words, sentences and stories about accidents and first aid.</li> <li>recites rhymes and poems about accidents.</li> <li>draws an accident scene.</li> </ul>	<ul style="list-style-type: none"> <li>for burns and scalds</li> <li>Poisoning:               <ul style="list-style-type: none"> <li>Causes &amp; types of poisoning</li> <li>Prevention of poisoning</li> </ul> </li> <li>Fever and convulsions:               <ul style="list-style-type: none"> <li>What fever and convulsions are</li> <li>Common causes</li> <li>Prevention and first aid</li> </ul> </li> <li>Drowning and near drowning:               <ul style="list-style-type: none"> <li>What they are</li> <li>Common causes</li> <li>Preventions and first aid</li> </ul> </li> <li>First aid kit:               <ul style="list-style-type: none"> <li>Components of kit</li> <li>Uses of the components</li> </ul> </li> <li>Giving first aid to common types of injuries and poisoning</li> </ul>	<ul style="list-style-type: none"> <li>drowning and near drowning</li> <li>Demonstrating first aid to be given for burns and scalds</li> <li>Dramatizing how accidents can be avoided</li> <li>Discussing effects of accidents and poisoning, and the first aid procedure</li> <li>Demonstrating how to use a first aid kit</li> </ul>	<p><b>Values</b></p> <ul style="list-style-type: none"> <li>Care</li> <li>Concern</li> <li>Responsibility</li> <li>Acceptance</li> <li>Patience</li> <li>Care</li> </ul>

## Suggested Competences for Assessment

The learner:

- states common causes of accidents.

- ii) fills in the missing letters to make words related to accidents:
- --ident
  - f-ll
  - in-u-y
  - c-t
- iii) writes the importance of first aid.
- iv) mentions ways in which a burn is different from a scald.
- v) draws and labels items in a first aid box.
- vi) dramatises how accidents can be avoided.

### Hints for the Teacher

- i) Discuss with learners how to manage common accidents.
- ii) In groups, let learners list habits which help to avoid accidents and poisoning.
- iii) Help learners to demonstrate skills for applying first aid.
- iv) Let learners dramatise how accidents can be avoided.

## Topic 7: Immunisation

Duration: 13 Periods

### Overview

Many children have perished due to diseases we could easily avoid. Learners should be made aware of ways of preventing the deadly childhood diseases. Immunization is the most effective means of protecting young children from killer diseases.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop more knowledge on immunisation and appreciate its importance.
- ii) understand how vaccines work and how to boost the body's natural defense.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• states the importance of immunisation.</li> <li>• explains the importance of immunity.</li> <li>• identifies the different types of immunity.</li> <li>• explains foods people need to eat to boost their immunity.</li> <li>• states different vaccines and relates them to immunisable diseases.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• talks about different types of immunity.</li> <li>• spells/finger spells the relevant words correctly.</li> <li>• sings songs about immunisation.</li> <li>• reads/signs and writes/ writes in Braille words, sentences and stories about immunisation.</li> <li>• recites poems about immunisation.</li> </ul>	<ul style="list-style-type: none"> <li>• Immunisation               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Importance of immunisation</li> </ul> </li> <li>• Immunity               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Types of immunity</li> <li>- Importance of immunity</li> </ul> </li> <li>• Immunisable childhood diseases (IMCD)               <ul style="list-style-type: none"> <li>- Polio</li> <li>- Diphtheria</li> <li>- Measles</li> <li>- Whooping cough</li> <li>- Tetanus</li> <li>- Hepatitis B</li> <li>- Hemophilia</li> <li>- Influenza</li> </ul> </li> <li>• Causes, spread, signs symptoms and effects of IMCD</li> <li>• Vaccines</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce the lesson by asking learners to talk about what they know about immunisation, whether they have been immunised before and what immunisation they got</li> <li>• Let them write these down</li> <li>• Explaining to learners the basics for immunisation and how it works</li> <li>• Showing them images of children</li> </ul>	<p><b>Life Skills</b></p> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> <li>• Evaluating facts</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Accuracy</li> <li>• Articulation</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Giving instructions</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Initiating new ideas</li> <li>• Innovativeness</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>draws immunization posters.</li> <li>describes signs and symptoms of the different immunisable diseases.</li> <li>identifies other immunisable diseases.</li> <li>Names centres where immunisation is carried out in their areas.</li> </ul>		<ul style="list-style-type: none"> <li>What they are</li> <li>Types of vaccines:                             <ul style="list-style-type: none"> <li>Measles vaccine</li> <li>Polio vaccine</li> <li>DPT</li> <li>BCG, Hepatitis B. Hem</li> </ul> </li> <li>Administration of vaccines:                             <ul style="list-style-type: none"> <li>Orally</li> <li>By injection</li> </ul> </li> <li>Other immunisable diseases:                             <ul style="list-style-type: none"> <li>Cholera</li> <li>Yellow fever</li> <li>Meningitis</li> <li>Beast cancer</li> </ul> </li> <li>Causes, signs/symptoms, effects and prevention of the other immunizable diseases</li> </ul>	<ul style="list-style-type: none"> <li>suffering from killer diseases</li> <li>Defining immunisation</li> <li>Naming different vaccines</li> <li>Identifying immunizable diseases</li> <li>Matching diseases to vaccines</li> <li>Identifying different ways of administering vaccines</li> <li>Drawing and labelling immunisation sites</li> <li>Drawing immunisation posters</li> </ul>	<p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> <li>Making choices</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Care</li> <li>Taking decisions</li> <li>Compromise</li> <li>Fluency</li> <li>Concern</li> <li>Confidence</li> <li>Acceptance</li> <li>Appreciation</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) states what immunity is.
- ii) names vaccines given against the following diseases:
  - a) TB
  - b) Polio
  - c) DPT
- iii) mentions a disease in babies which is immunised against at nine months.
- iv) states how tetanus germs enter the body.
- v) draws a picture of a baby and shows the immunisation sites and the vaccines.

### **Hints for the Teacher**

- i) Guide learners to define immunisation and name the two types of immunity.
- ii) Let learners discuss the importance of immunisation and examples of immunisable childhood diseases.
- iii) Guide learners to draw and fill the child's immunisation schedule.
- iv) Group learners and guide them to draw a picture of a baby showing immunisation sites and vaccines.

## Topic 8: Primary Health Care (PHC)

Duration: 9 Periods

### Overview

The learners should be involved in carrying out health activities based on knowledge they have gained. Community hygiene activities should mainly be confined to the school related activities so as to be a model.

### Learning Outcome

By the end of this topic, the learner should be able to apply the knowledge of the elements of Primary Health Care for an improved quality of life.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>describes what Primary Health Care (PHC) is, its elements and principles.</li> <li>demonstrates or practices activities of PHC in promotion of community hygiene.</li> <li>explains the responsibilities of individuals, family and community in health promotion.</li> <li>talks about different healthy life styles.</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>pronounces key words related to PHC elements and principles correctly.</li> <li>tells/re-tells stories about PHC activities in the community.</li> <li>sings songs about PHC promotion in the community.</li> <li>reads/signs words, sentences and stories about PHC activities in the community.</li> <li>writes/ writes in</li> </ul>	<ul style="list-style-type: none"> <li>PHC and its elements:               <ul style="list-style-type: none"> <li>What it is</li> <li>Elements and principles of PHC</li> </ul> </li> <li>Activities in PHC promotion of community hygiene:               <ul style="list-style-type: none"> <li>Rubbish disposal</li> <li>Excreta disposal</li> <li>Protecting water sources</li> </ul> </li> <li>Responsibility of individual family and community in health promotion</li> <li>Suitable lifestyles and</li> </ul>	<ul style="list-style-type: none"> <li>Describing PHC, its elements and principles</li> <li>Practising in activities of PHC in the community</li> <li>Demonstrating the responsibilities of individuals, families and community in health promotions</li> </ul>	<p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>Caring for oneself</li> <li>Talking about oneself</li> </ul> <p><b>Self-esteem</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> <li>Caring for others and community</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>Finding different strategies</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Confidence</li> <li>Responsibility</li> <li>Care</li> <li>Concern</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
	Barille words, sentences and stories about PHC activities in the community.	good health practices		<ul style="list-style-type: none"> <li>• Acceptance</li> <li>• Love</li> <li>• Sharing</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) writes PHC in full.
- ii) identifies elements and principles of PHC.
- iii) names suitable lifestyles and good health habits.
- iv) discusses what is meant by child to child program.

### Hints for the Teacher

- i) Guide learners to understand PHC, its elements and principles.
- ii) Guide learners to discuss activities of PHC necessary for promoting community hygiene.
- iii) Engage learners in cleaning exercises within the community e.g. school, homes, trading centres or water sources.



## Topic 9: Human Body Organs

Duration: 10 Periods

### Overview

This topic describes the major organs of the human body, their location and how they work. Learners should be made to understand the use of each organ and the role it plays in the working of the human body.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) locate and name the major organs of the human body.
- ii) explain the importance of the major organs of the human body.
- iii) understand that the body operates as a system.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• names different organs of the body.</li> <li>• states different ways in which our body works.</li> <li>• names the functions of the different organs of the body.</li> <li>• draws and labels the different human body parts.</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• reads/signs the names of the major organs in local language and English.</li> <li>• writes/ writes in Braille the names of the major organs in local language and English</li> <li>• reads/signs and answers comprehension questions on how the body works.</li> <li>• tells/re-tells a story about body organs.</li> </ul>	<ul style="list-style-type: none"> <li>• Major organs of the human body: <ul style="list-style-type: none"> <li>- Eyes</li> <li>- Brain</li> <li>- Ears</li> <li>- Stomach</li> <li>- Bladder</li> <li>- Heart</li> <li>- Lungs</li> <li>- Liver</li> <li>- Kidneys</li> <li>- Skin</li> </ul> </li> <li>• Major functions of the body parts: <ul style="list-style-type: none"> <li>- Eyes – for seeing</li> <li>- Ears - for hearing</li> <li>- Brain - controlling the body activities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Naming different organs of the body</li> <li>• Drawing and labeling of the human body showing the major organs</li> <li>• Reciting rhymes about how the body works and the role of each body organ</li> <li>• Explaining where</li> </ul>	<p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Accuracy</li> <li>• Giving instructions</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Acceptance</li> <li>• Giving instructions</li> </ul> <p><b>Values:</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Responsibility and the</li> <li>• Confidence</li> <li>• Audibility</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
	<ul style="list-style-type: none"> <li>• recites a rhyme about how the body works.</li> </ul>	<ul style="list-style-type: none"> <li>- Stomach - storing food</li> <li>- Bladder - storing urine</li> <li>- Heart - pumping blood</li> <li>- Lungs - breathing</li> <li>- Liver - removing poisonous substances from the body</li> <li>- Kidney - filtering urine</li> <li>• How the body works:               <ul style="list-style-type: none"> <li>- Takes in food and oxygen</li> <li>- Uses food and oxygen to get energy</li> <li>- Removes wastes</li> <li>- Carries food and oxygen to different parts of the body</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>the digested food goes after leaving the small intestines</li> <li>• Discussing the benefits of sweating to our bodies</li> </ul>	

### Suggested Competences for Assessment

The learner:

- i) names the sensory organs for sight and smell.
- ii) discusses the use of the brain to the body.
- iii) explains why sweating is important to the body.
- iv) names the types of food that are digested in the stomach.

- v) draws and labels the urinary system, heart and lungs.
- vi) matches A to B.

**A**

Eye  
Ear  
Stomach  
Heart  
Brain

**B**

Controlling the body  
Pumping blood  
Hearing  
Storing food  
Seeing

**Hints for the Teacher**

- i) Guide learners to identify the major organs of the body.
- ii) In groups, guide learners to discuss the major functions of the body.
- iii) Arrange learners in groups and let them match the labels to diagrams of the body organs.

## THEME 4: THE HUMAN BODY

### Topic 1: The Teeth

Duration: 10 Periods

#### Overview

Oral health is an important aspect of hygiene and learners should develop the desired skills and practices to take care of their teeth by preventing disorders and diseases that affect them.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) identify types of teeth and their functions.
- ii) describe different disorders and diseases that affect our teeth.
- iii) practise acceptable habits to care for the teeth.

Content	Subject Competences	Language Competences	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• identifies the different sets of teeth.</li> <li>• describes the different types of teeth and their functions.</li> <li>• identifies the diseases and disorders of teeth.</li> <li>• demonstrates how to brush the teeth correctly.</li> <li>• practises habits that promote oral health.</li> <li>• draws and labels</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/finger spells the names of the different types of teeth correctly.</li> <li>• reads/signs and writes/writes in Braille words and stories about oral health.</li> <li>• writes/writes in Braille names of the different types of teeth.</li> </ul>	<ul style="list-style-type: none"> <li>• Sets of teeth:               <ul style="list-style-type: none"> <li>- Milk teeth</li> <li>- Permanent teeth</li> </ul> </li> <li>• Types of teeth:               <ul style="list-style-type: none"> <li>- Canines</li> <li>- Incisors</li> <li>- Pre-molars</li> <li>- Molars</li> </ul> </li> <li>• Functions of teeth:               <ul style="list-style-type: none"> <li>- Cutting</li> <li>- Tearing</li> <li>- Grinding</li> <li>- Chewing</li> </ul> </li> <li>• Teeth structure:               <ul style="list-style-type: none"> <li>- Enamel</li> <li>- Crown</li> <li>- Neck</li> <li>- Root</li> </ul> </li> <li>• Care of our teeth:</li> </ul>	<ul style="list-style-type: none"> <li>• Matching different types of teeth to diagrams</li> <li>• Drawing and labelling teeth structure and types</li> <li>• Practicing correct brushing of teeth and correct maintenance of the mouth</li> <li>• Modeling the structure of</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Making use of the available information</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Knowing the consequences of decisions taken</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Caring for others</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Supporting others</li> </ul>

Content	Subject Competences	Language Competences	Suggested Teaching/Learning Activities	Life Skills and Values
different types of teeth.	<ul style="list-style-type: none"> <li>tells/ re-tells/ signs stories in proper sequence about their experiences on renewing bad teeth.</li> </ul>	<ul style="list-style-type: none"> <li>Brushing</li> <li>Flossing</li> <li>Regular dental check up</li> <li>Eating correct food</li> <li>Use of tooth paste</li> <li>Teeth diseases and disorders:               <ul style="list-style-type: none"> <li>Dental cavity</li> <li>Dental caries</li> <li>Tooth cracks</li> <li>Improper growth</li> <li>Broken teeth</li> </ul> </li> <li>Teeth and their functions</li> </ul>	types of teeth	<ul style="list-style-type: none"> <li>Caring for others</li> <li>Comforting</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Care</li> <li>Responsibility</li> <li>Acceptance</li> <li>Confidence</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) names the first set of teeth a person develops.
- ii) draws and labels types of teeth.
- iii) lists items used to clean the teeth.
- iv) explains causes of gum diseases.
- v) talks about the benefits of taking good care of our teeth.
- vi) draws and labels the structure of different teeth:
  - a) Incisor
  - b) Canine
  - c) Premolar
  - d) Molar

### Hints for the Teacher

- i) In pairs, guide learners to observe each other's teeth, name them and state their functions
- ii) In groups, guide learners to draw and model the structure of the teeth and display.
- iii) Ask learners to demonstrate care for the teeth
- iv) In groups, guide learners to discuss the causes of improper growth of the teeth

## TERM 3

### THEME 4: THE HUMAN BODY

#### Topic 2: The Digestive System

Duration: 17 Periods

#### Overview

The digestive system is made up of organs which help to break down food, making it usable by the body.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) acquire knowledge about organs of the digestive system and what happens to food in the system.
- ii) state the importance of the digestive organs in the body.
- iii) understand the organs of the digestive system.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• explains what the digestive system is.</li> <li>• names the different parts of the digestive system.</li> <li>• names the different enzymes that act on food in the alimentary canal.</li> <li>• draws and labels the different</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/finger spells the words correctly.</li> <li>• recites rhymes about the different parts of the digestive system.</li> <li>• reads/signs words, sentences and stories about the digestive system.</li> </ul>	<ul style="list-style-type: none"> <li>• Digestive system:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Parts of the digestive system (the alimentary canal; mouth, esophagus, stomach, small and large intestines)</li> </ul> </li> <li>• Functions of the different parts of the digestive system</li> <li>• Diseases and disorders of the digestive system (e.g. dysentery, constipation,</li> </ul>	<ul style="list-style-type: none"> <li>• Naming different parts of the digestive system</li> <li>• Reciting rhymes about parts of the digestive system</li> <li>• Drawing and labeling the different parts of the digestive system</li> <li>• Discussing diseases</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> <li>• Giving reasons for action taken</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Caring for oneself</li> </ul> <p><b>Problem solving</b></p> <p>Making choices</p> <p><b>Empathy</b></p>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>parts of the digestive system.</p> <ul style="list-style-type: none"> <li>describes the functions of the different parts of the digestive system.</li> <li>describes the signs, symptoms of diseases and disorders of the digestive system.</li> <li>demonstrates good habits of preventing diseases and disorders of the digestive system.</li> </ul>	<ul style="list-style-type: none"> <li>writes/writes in Braille names of the different parts of the digestive system correctly.</li> </ul>	<p>ulcers, tapeworm infections)</p> <ul style="list-style-type: none"> <li>Causes</li> <li>Signs and symptoms</li> <li>Enzymes in the digestive system</li> <li>Prevention and management of diseases and disorders of the digestive system</li> <li>Good feeding habits</li> <li>Timely feeding</li> <li>Use of clean and safe water</li> <li>Regular checkups</li> <li>Oral health</li> <li>Timely eating</li> <li>Food hygiene</li> <li>Personal hygiene</li> <li>Vector control</li> <li>Sanitation</li> <li>Avoiding junk foods</li> <li>Oral health</li> </ul>	<p>and disorders of the digestive system</p>	<ul style="list-style-type: none"> <li>Caring for others</li> <li>Comforting</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Taking decisions</li> <li>Concern</li> <li>Care</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) discusses the importance of the digestive system.
- ii) draws and labels the digestive system.
- iii) names diseases of the digestive system.
- iv) writes ways of preventing diseases of the digestive system.
- v) draws and labels enzymes and the foods they act on in the alimentary canal.
- vi) identifies and lists the parts where digestion begins and ends.

## Hints for the Teacher

- i) Guide learners to discuss the importance of the digestive system.
- ii) In groups, guide learners to draw and label the digestive system.
- iii) Guide learners in listing the digestive system.
- iv) Let learners discuss different ways of preventing diseases of the digestive system.



## THEME 5: MATTER AND ENERGY

### Topic 1: Measurement

Duration: 17 Periods

#### Overview

This topic should increase the learner's skills of taking accurate measurements using different instruments and apparatus.

#### Learning Outcome

By the end of this topic, the learner should be able to understand practices of measuring using standard unit measurements of mass, weight and volume using correct instruments.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>explains what matter is.</li> <li>mentions the different properties of matter.</li> <li>describes the different states of matter.</li> <li>differentiates between solutes and solvents.</li> <li>states the different measurement of objects.</li> <li>explains the need for standard measures of mass, weight and volume.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>uses the correct English words to compare measurements.</li> <li>spells/ finger spells the word correctly.</li> <li>reads/signs and reads in Braille scientific units used for measuring correctly.</li> </ul>	<ul style="list-style-type: none"> <li>Matter               <ul style="list-style-type: none"> <li>What it is</li> <li>Properties of matter</li> <li>States of matter</li> <li>Solutes</li> <li>Solvents</li> <li>Solutions</li> </ul> </li> <li>Measuring               <ul style="list-style-type: none"> <li>Mass and weight</li> <li>Capacity and volume</li> </ul> </li> <li>Behaviours of objects with water:               <ul style="list-style-type: none"> <li>Floating and sinking</li> <li>Displacement methods of determining volume</li> </ul> </li> <li>Density</li> </ul>	<ul style="list-style-type: none"> <li>Stating properties of matter</li> <li>Discussing states of matter</li> <li>Using correct instruments and apparatus to take measurements</li> <li>Comparing different objects by mass, weight and volume</li> <li>Carrying out experiments on floating and sinking</li> <li>Measuring mass, weight and volume</li> </ul>	<p><b>Life Skills</b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>Accuracy</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Giving instructions</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>Finding different strategies</li> <li>Analysing statements</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>uses the correct instruments and apparatus to take measurement.</li> <li>demonstrates floating and sinking of objects.</li> </ul>		<ul style="list-style-type: none"> <li>What density is</li> <li>Formula for density</li> <li>Calculating density</li> </ul>	<ul style="list-style-type: none"> <li>using standard measures and correct instruments</li> <li>Finding density of different objects</li> </ul>	<b>Values</b> <ul style="list-style-type: none"> <li>Fluency</li> <li>Confidence</li> <li>Responsibility</li> <li>Endurance</li> </ul>

### Suggested Competences for Assessment

The learner:

- names different units used when measuring various objects.
- explains why objects sink or float on water.
- measures mass, weight and volume of different objects.
- experiments on different objects and finds out their behaviour in water.
- blows air in balloons or inflates tires of different sizes, observes and reports the findings.
- experiments to find out which substances are soluble, insoluble.

### Hints for the Teacher

- Ask learners to mention and list things that need to be measured.
- In groups, guide learners to demonstrate the relationship between mass and weight, capacity and volume.
- Teach using experiments and integrate the teaching with mathematics.
- Guide learners to use correct language of measurement.

## Topic 2: Heat Energy

Duration: 17 Periods

### Overview

Heat energy is a very essential form of energy in our day-to-day life. It provides optimum warmth for plants and animal growth. Heat increases temperature of matter by making it warm. When matter loses heat, it becomes cold. Cooling is lowering of body temperature due to loss of heat.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) demonstrate basic scientific knowledge, effects of heat on things in the environment and investigate effects of heat on matter.
- ii) understand that the sun is the main source of heat for living things on earth.
- iii) understand that when objects are rubbed together, they produce heat.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• identifies the differences between types and forms of energy.</li> <li>• describes what energy is.</li> <li>• names the different types and forms of energy.</li> <li>• identifies different sources of heat.</li> <li>• describes the effect of heat on matter.</li> <li>• mentions methods of heat transfer.</li> <li>• states the difference between heat energy and temperature.</li> <li>• names the types and uses of thermometers.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/ finger spells the words correctly.</li> <li>• reads/ signs words, sentences and stories about heat energy.</li> <li>• writes/ writes in Braille short stories on forms of energy.</li> <li>• writes/ reads in Braille names of the different types of thermometers</li> </ul>	<ul style="list-style-type: none"> <li>• Energy               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Types of energy: kinetic and potential energy</li> </ul> </li> <li>• Forms of energy:               <ul style="list-style-type: none"> <li>- Heat</li> <li>- Sound</li> <li>- Electric</li> <li>- Magnetic, etc.</li> </ul> </li> <li>• Heat energy:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Sources of heat energy</li> <li>- Uses of heat energy</li> </ul> </li> <li>• Effects of heat on matter:</li> </ul>	<ul style="list-style-type: none"> <li>• Describing what energy is</li> <li>• Naming types of energy.</li> <li>• Measuring temperatures</li> <li>• Drawing and labelling different thermometers</li> <li>• Practising measuring temperatures correctly</li> <li>• Practising caring for the thermos flask</li> <li>• Drawing and labelling different</li> </ul>	<u><b>Life Skills</b></u> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Innovativeness</li> <li>• Taking decisions</li> <li>• Evaluating facts</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Find different strategies</li> <li>• Making choices</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Innovativeness</li> <li>• Analytical skills</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• draws and labels the different types of thermometers.</li> <li>• converts temperature from degrees celsius to fahrenheit and vice versa.</li> <li>• demonstrates producing heat.</li> <li>• observes and records that things in direct sunshine are warmer than things that are not under direct sun rays.</li> </ul>		<ul style="list-style-type: none"> <li>- Change in size/length; (experiment on expansion &amp; contraction)</li> <li>- Change of states (melting, evaporation, freezing, condensation and sublimation)</li> <li>• Heat transfer:               <ul style="list-style-type: none"> <li>- Methods of heat transfer</li> <li>- Thermos flask</li> <li>- Charcoal stove</li> </ul> </li> <li>• Thermometers and measurement of temperature:               <ul style="list-style-type: none"> <li>- Types and uses of the thermometers</li> <li>- Difference between the different types of thermometers</li> </ul> </li> <li>• Conversion from celsius to fahrenheit scale and vice versa</li> </ul>	<p>sources of heat</p>	<ul style="list-style-type: none"> <li>• Making choices</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> <li>• Care</li> <li>• Co-operation</li> <li>• Logic</li> <li>• Taking decisions</li> <li>• Making right choices</li> </ul>

## Suggested Competences for Assessment

The learner:

- i) conducts an experiment to find the effects of heat on matter.
- ii) explains the uses of heat energy in our environment.
- iii) draws and explains the changes of states of matter.
- iv) lists out conductors and insulators of heat.
- v) discusses the characteristics of different thermometers.
- vi) experiments on different modes of heat transfer.

## Hints for the Teacher

- i) Ask learners to mention the different sources of heat.
- ii) Guide learners to identify the differences between types and forms of energy.
- iii) Ask learners to draw and label pictures of different sources of heat.
- iv) Expose learners practically to the effects of heat on matter in order to enhance their understanding of their environment.
- v) In groups, guide learners to observe, record and report back the differences in heat under the sun and away from the sun.
- vi) Guide learners to discuss sources and uses of heat energy.
- vii) In groups, guide learners to convert temperatures correctly from fahrenheit to celcius and vice versa.
- viii) In pairs, guide learners to write the types and uses of thermometers.
- ix) Guide learners to conduct experiments of heat on solids, liquids and gases.

## THEME 6: SCIENCE IN HUMAN ACTIVITIES AND OCCUPATIONS

### Topic 1: Keeping Poultry and Bees

Duration: 16 Periods

#### Overview

Keeping poultry and bees is a very important topic to help learners develop interest and basic skills in managing simple projects for self-reliance. It also helps learners to appreciate poultry and bee farming as a business.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) use basic scientific knowledge and skills in management of poultry and bees.
- ii) exhibit interest in poultry and bee keeping.

Content	Subject Competences	Language Competences	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• identifies different types of poultry.</li> <li>• names the different types of poultry.</li> <li>• names the external parts of a domestic fowl.</li> <li>• lists the different types of chicken.</li> <li>• describes the breeds of chicken.</li> <li>• writes the uses of poultry.</li> <li>• demonstrates good management practices in poultry keeping.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• labels with correct spelling a diagram showing external parts of a domestic fowl.</li> <li>• reads/signs words and sentences on poultry correctly.</li> <li>• tells/signs and re-tells stories about poultry farming as a business.</li> </ul>	<ul style="list-style-type: none"> <li>• Poultry:               <ul style="list-style-type: none"> <li>- Types of poultry (e.g. chicken, goose, guinea fowl, turkey, duck, etc.)</li> <li>- Importance of keeping poultry</li> <li>- External features of a domestic fowl (male and female)</li> </ul> </li> <li>• Types of chicken               <ul style="list-style-type: none"> <li>- Broilers</li> <li>- Layers</li> <li>- Dual purpose - examples</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Naming types of poultry</li> <li>• Describing the different types of poultry</li> <li>• Drawing and labeling different parts of a hen</li> <li>• Discussing uses of poultry farming</li> <li>• Discussing, visiting and writing a story about a poultry farm</li> <li>• Describing and</li> </ul>	<p><b>Life Skills</b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Innovativeness</li> <li>• Fluency</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Finding different strategies</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Initiating new ideas</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> </ul>

Content	Subject Competences	Language Competences	Suggested Teaching/ Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>draws and labels the life cycle of poultry.</li> <li>states the different types of bees.</li> <li>states the importance of bees.</li> <li>explains conditions and reasons for swarming.</li> <li>identifies the three types of bee hives.</li> <li>describes the different methods of harvesting honey.</li> <li>explains the importance of bee farming as a business.</li> <li>draws and labels the life cycle of bees.</li> </ul>	<ul style="list-style-type: none"> <li>recites rhymes about poultry farming.</li> <li>writes/ writes in Braille words, sentences and stories about keeping chicken.</li> <li>spells/finger spells the words correctly.</li> <li>reads/signs stories and poems about importance of bee farming.</li> <li>writes/ writes in Braille about bee farming.</li> <li>writes/ writes in Braille names of the life cycle of bees.</li> </ul>	<p>and values of each</p> <ul style="list-style-type: none"> <li>Breeds of chicken                             <ul style="list-style-type: none"> <li>Local breed</li> <li>Exotic breed</li> </ul> </li> <li>Examples, characteristics, advantages and disadvantages of each</li> <li>Systems of keeping poultry (chicken):                             <ul style="list-style-type: none"> <li>Free range system</li> <li>Deep litter system</li> <li>Fold pen system</li> <li>Battery or cage system</li> </ul> </li> <li>Examples, advantages and disadvantages of each</li> <li>Management of poultry (Chicken):                             <ul style="list-style-type: none"> <li>Proper feeding</li> <li>Proper housing</li> <li>Pests and disease control and treatment, record keeping, improving on breed</li> </ul> </li> </ul>	<p>practicing different ways of managing poultry</p> <ul style="list-style-type: none"> <li>Explaining poultry vices</li> <li>Describing causes of poultry diseases, symptoms, prevention and treatment</li> <li>Identifying and naming the types of bees</li> <li>Drawing and labeling the life cycle of bees</li> <li>Identifying and naming the types of bee hives</li> <li>Describing reasons for swarming</li> <li>Describing different methods of harvesting honey</li> <li>Spelling/ Finger spelling, reading/ signing and writing/ writing in Braille words</li> </ul>	<p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Knowing the consequences of one's decision</li> <li>Acceptance</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Care</li> <li>Concern</li> <li>Appreciation</li> <li>Love</li> <li>Patience</li> <li>Fluency</li> </ul>

Content	Subject Competences	Language Competences	Suggested Teaching/ Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>• Poultry vices               <ul style="list-style-type: none"> <li>- Egg eating</li> <li>- Toe pecking</li> </ul> </li> <li>• Diseases: causes, signs, symptoms, prevention and treatment (Coccidiosis, Fowl pox, Newcastle disease, Fowl typhoid, Avian leucosis, Black head)</li> <li>• Bees               <ul style="list-style-type: none"> <li>- Types of bees</li> <li>- Importance of bees to plants and people (pollination, honey, bee wax, propolis)</li> </ul> </li> <li>• Conditions and reasons for swarming:               <ul style="list-style-type: none"> <li>- Leakage in hives</li> <li>- Excess heat</li> <li>- Attack by enemies</li> <li>- Bad smell</li> <li>- Noise</li> <li>- Search for new hives</li> </ul> </li> <li>• Types of hives:               <ul style="list-style-type: none"> <li>- Traditional hives</li> <li>- Modern hives</li> </ul> </li> <li>• Harvesting honey:               <ul style="list-style-type: none"> <li>- Methods of harvesting</li> </ul> </li> </ul>	<p>related to bee- keeping</p>	



Content	Subject Competences	Language Competences	Suggested Teaching/Learning Activities	Life Skills and Values
		honey (traditional and modern methods) <ul style="list-style-type: none"> <li>• Bee farming as a business /employment</li> <li>• Honey, candles, plastics</li> </ul>		

### Suggested Competences for Assessment

The learner:

- i) names the types of poultry.
- ii) draws and labels the external features of a male and female domestic fowl.
- iii) explains ways in which a male turkey differs from a female one.
- iv) names the types of exotic breeds of chicken.
- v) draws and labels the parts of an egg.
- vi) states the types of bees.
- vii) describes the conditions for bee swarming.
- viii) draws a modern bee hive.
- ix) discusses why bees are important to people.
- x) explains methods used in honey extraction.

### Hints for the Teacher

- i) Take learners for an excursion to a nearby poultry farm to observe birds, bees and record their findings.
- ii) Guide learners to draw and label the external features of a domestic fowl.
- iii) In groups guide learners to discuss management of poultry.
- iv) Guide learners to brainstorm the diseases that attack poultry.
- v) Discuss with your learners why bees swarm.
- vi) Guide learners to research about methods of honey extraction and report back.

## Topic 2: Keeping Goats, Sheep and Pigs

Duration: 18 Periods

### Overview

In this topic, the learners use the scientific knowledge they have acquired to enable them keep animals.

### Learning Outcome

By the end of this module, the learner should be able to demonstrate scientific knowledge and skills necessary for keeping animals and start animal keeping projects.

Subject Competences	Language Competence	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>names the external parts of a goat, sheep and pig.</li> <li>draws and labels the external parts of a goat, sheep and pig.</li> <li>describes different breeds of goats, sheep and pigs.</li> <li>mentions the uses of goats, pigs and sheep.</li> <li>discusses the causes, signs/ symptoms, prevention and control</li> </ul>	The learner: <ul style="list-style-type: none"> <li>talks about the different breeds of goats, sheep and pigs.</li> <li>reads/signs words, sentences and stories about goats, sheep and pigs.</li> <li>writes/ writes in Braille words, sentences and stories about goats, sheep and pigs.</li> <li>recites poems on</li> </ul>	<ul style="list-style-type: none"> <li>Goats and sheep keeping:               <ul style="list-style-type: none"> <li>External parts of goats and sheep</li> <li>Breeds of goats and sheep</li> <li>Uses of goats and sheep</li> <li>Products from goats and sheep (meat, skin, wool, milk, )</li> </ul> </li> <li>Housing and management of goats and sheep</li> <li>Diseases of goats and sheep:               <ul style="list-style-type: none"> <li>Causes</li> <li>Signs and symptoms</li> <li>Prevention and control</li> </ul> </li> <li>Pig keeping:</li> </ul>	<ul style="list-style-type: none"> <li>Listing external parts of goats, sheep and pigs</li> <li>Naming different breeds of goats, sheep and pigs</li> <li>Listing products of goats, sheep and pigs</li> <li>Discussing how to control parasites and diseases of goats, sheep and pigs</li> <li>Drawing and labelling the external parts of</li> </ul>	<p><b>Life Skills</b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>Confidence</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Giving instructions</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Making the best use of the available information</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Care</li> <li>Concern</li> <li>Confidence</li> </ul>

Subject Competences	Language Competence	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>measures of diseases in goats, pigs and sheep.</p> <ul style="list-style-type: none"> <li>designs a work plan for starting an animal-keeping project.</li> <li>lists products got from goats, sheep and pigs.</li> <li>mentions diseases of goats, sheep, and pigs; their causes, symptoms; and management.</li> </ul>	goats, sheep and pigs.	<ul style="list-style-type: none"> <li>External parts of a pig</li> <li>Breeds of pigs</li> <li>Proper housing and management of pigs</li> <li>Products from pigs: pork and lard</li> <li>Common parasites and diseases of pigs:               <ul style="list-style-type: none"> <li>Causes</li> <li>signs and symptoms</li> <li>prevention and treatment of pig diseases</li> </ul> </li> <li>Control of worm infestation</li> <li>Starting and managing pigs, goats and sheep projects</li> </ul>	<p>goats, sheep and pigs</p> <ul style="list-style-type: none"> <li>Identifying breeds of pigs</li> <li>Describing ways of housing and managing pigs</li> <li>Naming common parasites and diseases in pigs</li> <li>Caring for goats, sheep and pigs as a project</li> </ul>	

## Suggested Competences for Assessment

The learner:

- i) names local breeds of goats, pigs and sheep.
- ii) draws and labels the external parts of a male and female goat, sheep and pig.
- iii) lists local and exotic breeds of sheep, goats and pigs.
- iv) mentions characteristics of exotic and local pigs, goats and sheep.
- v) starts a project on keeping goats, sheep and pigs.

## Hints for the Teacher

- i) Organise a visit to a nearby animal farm to let learners observe animals and record their findings.
- ii) Lead learners to discuss the uses of goats, sheep and pigs.
- iii) Guide learners to draw different housing for goats, sheep and pigs.
- iv) Discuss with learners common diseases in goats, sheep and pigs.
- v) Engage learners in the drawing and labeling of external parts of a goat, sheep and pig.
- vi) Guide learners to make a work plan to start a goat, sheep, or pig project.

SECTION 2

LEVEL  
**THREE**

## TERM 1

### THEME 1: THE WORLD OF LIVING THINGS

#### Topic 1: Classification of Animals

Duration: 10 Periods

##### Overview

This topic is meant to guide learners on how to differentiate between vertebrates and invertebrates. It is important to further consolidate the learner's acquired experiences on animals and their classifications.

##### Learning Outcome

By the end of this topic, the learner should be able to acquire the skill of identifying the characteristics of different groups of animals and their survival features.

Subject Competences	Language Competences	Content	Suggested Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>names examples of vertebrates and invertebrates.</li> <li>discusses different classes of vertebrates and invertebrates.</li> <li>describes modes of reproduction in vertebrates and invertebrates.</li> <li>talks about ways of caring and protecting vertebrates and invertebrates.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>spells/finger spells words classifying animals correctly.</li> <li>acts out a dialogue about vertebrates and invertebrates.</li> <li>reads/signs words, sentences and stories about vertebrates and invertebrates.</li> <li>writes/ writes in Braille sentences about vertebrates</li> </ul>	<ul style="list-style-type: none"> <li>Vertebrates:               <ul style="list-style-type: none"> <li>Warm blooded animals:                   <ul style="list-style-type: none"> <li>Mammals</li> <li>Birds</li> </ul> </li> <li>Cold blooded animals:                   <ul style="list-style-type: none"> <li>Reptiles</li> <li>Fish</li> <li>Amphibians</li> </ul> </li> </ul> </li> <li>Invertebrates:               <ul style="list-style-type: none"> <li>Arthropods e.g. insects, arachnids, myriapods and crustaceans</li> </ul> </li> <li>Care for and protection of</li> </ul>	<ul style="list-style-type: none"> <li>Naming examples of vertebrates and invertebrates</li> <li>Classifying animals into vertebrates and invertebrates using a simple structure</li> <li>Explaining modes of reproduction in vertebrates and invertebrates</li> <li>Mentioning characteristics of different classes of</li> </ul>	<p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>Taking decisions</li> </ul> <p><b>Effective Communication</b></p> <ul style="list-style-type: none"> <li>Articulation</li> <li>Using appropriate language</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>Sharing with others</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Accuracy</li> <li>Confidence</li> <li>Appreciation</li> <li>Responsibility</li> </ul>

Subject Competences	Language Competences	Content	Suggested Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>mentions different ways of environmental protection.</li> <li>discusses ways of stopping hostility to animals .</li> </ul>	and invertebrates.	vertebrates and invertebrates - Protecting the endangered animals - Protecting their environment - Reducing environmental degradation - Formulating friendly laws/policies - Reducing their exploitation - Stopping hostilities	vertebrates and invertebrates	

### Suggested Competences for Assessment

The learner:

- i) names classes of animals.
- ii) differentiates between vertebrates and invertebrates (warm-blooded and cold-blooded animals).
- iii) mentions the common examples of invertebrates and vertebrates.
- iv) discusses ways of stopping hostility towards animals.
- v) writes different ways of protecting the environment.

### Hints for the Teacher

- i) Arrange an outdoor lesson to allow learners observe and study different animals and then record their findings.
- ii) Use a simple animal classification structure to show vertebrates and invertebrates.
- iii) Use practical approaches to help learners classify animals according to their characteristics.
- iv) In groups, engage learners to list different ways of protecting environment.

## Topic 2: Classification of Plants

Duration: 13 Periods

### Overview

In this topic, help the learners to classify plants using their biological characteristics. Guide the learners to use the environment as much as possible. Use real objects and field study intensively to avoid abstract teaching and learning.

### Learning Outcome

By the end of this topic, the learner should be able to develop understanding of plant propagation and appreciate the economic value of plants.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>describes flowering and non-flowering plants.</li> <li>draws and labels flowering and non-flowering plants correctly.</li> <li>classifies plants into flowering and non-flowering plants.</li> <li>describes the mechanisms and agents of seed dispersal.</li> <li>mentions the economic</li> </ul>	The learner: <ul style="list-style-type: none"> <li>spells/ finger spells names of the classes of plants correctly.</li> <li>reads/signs words and sentences about classes of plants.</li> <li>writes/ writes in Braille words about seed dispersal and plant propagation.</li> <li>writes/ writes in Braille words and sentences about flowering and non-</li> </ul>	<ul style="list-style-type: none"> <li>Flowering plants:               <ul style="list-style-type: none"> <li>Legumes and cereals</li> </ul> </li> <li>Non-flowering plants:               <ul style="list-style-type: none"> <li>Spore bearing plants</li> <li>Conifers</li> <li>Algae</li> </ul> </li> <li>Plant seed dispersal:               <ul style="list-style-type: none"> <li>Mechanisms</li> <li>Agents</li> <li>Importance, adaptation of seeds to mode of dispersal</li> </ul> </li> <li>Plant propagation:               <ul style="list-style-type: none"> <li>Seeds</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Observing different plants in their environment and classifying them into flowering and non-flowering plants</li> <li>Drawing and labeling flowering and non-flowering plants</li> <li>Explaining the mechanisms and agents of seed dispersal</li> <li>Drawing the structure of</li> </ul>	<p><b>Life Skills</b></p> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>Logical reasoning</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>Making choices</li> </ul> <p><b>Effective Communication</b></p> <ul style="list-style-type: none"> <li>Audibility</li> <li>Articulation</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>Responsibility</li> <li>Care</li> <li>Confidence</li> <li>Appreciation</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
value of plants to man.	flowering plants correctly.	<ul style="list-style-type: none"> <li>- Suckers</li> <li>- Cutting</li> <li>- Budding</li> <li>• Economic values of plants:               <ul style="list-style-type: none"> <li>- Raw materials</li> <li>- Eco-tourism</li> <li>- Income</li> <li>- Food</li> </ul> </li> </ul>	classification plants	

### Suggested Competences for Assessment

The learner:

- i) lists examples of flowering plants.
- ii) uses characteristics to classify different plants.
- iii) draws and labels different ways of seed dispersal.
- iv) discusses the different propagation methods.
- v) uses new words learnt correctly.

### Hints for the Teacher

- i) Organise a simple field study for your learners to interact with different plants and then record their findings.
- ii) Work with your learners to prepare a simple classification table.
- iii) In groups, help learners to carry out a simple experiment on plant propagation.
- iv) Engage learners in activities that involve drawing and labeling ways of seed dispersal.

## THEME 2: THE HUMAN BODY

### Topic 1: Circulatory System

Duration: 14 Periods

#### Overview

All vertebrates have blood which circulates throughout their bodies to keep life. Guide learners on how blood flows throughout the body, its functions, diseases and disorders related to the circulatory system.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of blood in the body.
- ii) develop further understanding of how blood circulates in the body.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• describes what blood circulation is.</li> <li>• explains the structure and functions of the heart.</li> <li>• identifies the blood vessels.</li> <li>• names ways of increasing the volume of blood in circulation.</li> <li>• mentions diseases and disorders of the</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• writes/ writes in Braille about the composition and functions of blood.</li> <li>• spells/finger spells names of the blood vessels correctly.</li> <li>• reads/signs words, sentences and stories about composition and functions of blood.</li> </ul>	<ul style="list-style-type: none"> <li>• Blood circulation:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Parts of blood circulatory system</li> </ul> </li> <li>• The structure and functions of the heart:               <ul style="list-style-type: none"> <li>- Structure and functions of parts of the heart</li> </ul> </li> <li>• Blood vessels:               <ul style="list-style-type: none"> <li>- Veins and arteries</li> <li>- Capillaries attached to the heart</li> <li>- Their Characteristics</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Drawing and labeling parts of the heart correctly</li> <li>• Explaining how blood circulates in the human body</li> <li>• Observing a model on blood circulation</li> <li>• Differentiating between arteries, veins and capillaries</li> </ul>	<p><b>Life Skills</b></p> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Evaluating facts</li> <li>• Taking decisions</li> <li>• Logical reasoning</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Caring for oneself</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Comforting</li> </ul> <p><b>Self esteem</b></p> <ul style="list-style-type: none"> <li>• Self-appreciation</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Appreciation</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>circulatory system.</p> <ul style="list-style-type: none"> <li>• discusses effects of HIV and AIDS on the individual, family and community.</li> <li>• draws and labels the structure of the heart.</li> </ul>	<ul style="list-style-type: none"> <li>• writes/ writes in Braille words, sentences and stories about diseases and disorder of the circulatory system.</li> </ul>	<ul style="list-style-type: none"> <li>• Composition and functions of blood:               <ul style="list-style-type: none"> <li>- Plasma</li> <li>- Red blood cells</li> <li>- White blood cells</li> <li>- Platelets</li> </ul> </li> <li>• Increasing the volume of blood in circulation:               <ul style="list-style-type: none"> <li>- Physical activities</li> <li>- Taking fluids</li> <li>- Healthy feeding</li> <li>- Regular medical checkup</li> <li>- Use of drugs</li> </ul> </li> <li>• Diseases and disorders of the circulatory system</li> <li>• Effects of HIV and AIDS on the individual, the family and the community</li> </ul>		<ul style="list-style-type: none"> <li>• Care</li> <li>• Acceptance</li> <li>• Sympathy</li> <li>• Concern</li> <li>• Love</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) names the blood vessels.
- ii) describes the structure and functions of the heart.
- iii) describes ways of increasing blood in circulation.
- iv) writes at least 5 PIASCY messages about HIV and AIDS.
- v) draws and labels the parts of the heart.

### **Hints for the Teacher**

- i) Use a variety of instructional materials such as models to avoid abstract teaching.
- ii) Guide learners to make a model of the circulatory system and discuss its functions.
- iii) Make clear differences between veins, arteries and vessels and how they transport blood.
- iv) Conduct a simple experiment on blood circulation using the fingers to feel the pulse.
- v) Guide learners to draw and label the structure of the heart.

## Topic 2: Respiratory System

Duration: 12 Periods

### Overview

In order for our bodies to function normally, oxygen needs to be supplied through our body. The oxygen is used to burn food to release energy needed for body activities. At this level, it is important to help learners focus more on names of organs of the system and how they function.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of the respiratory system in the production of energy for life.
- ii) acquire scientific knowledge and skills for maintaining the efficiency of the respiratory system.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• explains what the respiratory system is.</li> <li>• identifies respiratory organs.</li> <li>• experiments on how breathing takes place.</li> <li>• draws and labels the respiratory organs correctly.</li> <li>• describes how to keep the respiratory system healthy.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• tells/ retells/ signs stories about breathing and respiration.</li> <li>• reads/signs words, sentences and stories about diseases and disorders of the system.</li> <li>• writes/ writes in Braille words, sentences and stories on how to keep the system in a healthy working condition.</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory organs:               <ul style="list-style-type: none"> <li>- What respiration is</li> <li>- Major organs of the respiratory system</li> </ul> </li> <li>• Lungs:               <ul style="list-style-type: none"> <li>- Structure</li> <li>- Functions and properties of the lungs</li> <li>- The breathing mechanism</li> <li>- Compare the breathing mechanism in man and fish</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Observing models/ diagrams of respiratory organs</li> <li>• Experimenting on how breathing takes place</li> <li>• Drawing and labeling the respiratory organs</li> <li>• Discussing how to care for the lungs</li> <li>• Spelling the new words about the respiratory system correctly</li> </ul>	<p><b>Life Skills</b></p> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> <li>• Giving instructions</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Articulation</li> <li>• Confidences</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Caring for others</li> <li>• Comforting</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Sympathy</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>identifies diseases and disorders of the respiratory system.</li> </ul>		<ul style="list-style-type: none"> <li>Respiration in relation to food and oxygen</li> <li>Keeping the system in a healthy working condition</li> <li>Diseases and disorders of the system</li> </ul>		<ul style="list-style-type: none"> <li>Concern</li> <li>Responsibility</li> <li>Acceptance</li> <li>Confidence</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) names the respiratory organs.
- ii) lists the diseases of the respiratory system.
- iii) describes ways of keeping the respiratory system in a healthy working condition.
- iv) draws and labels the respiratory system.
- v) identifies different parts of the respiratory system and states their functions.

### Hints for the Teacher

- i) Guide learners to acquire the skills of keeping the system in a healthy condition.
- ii) Arrange for talks by resource persons on organs of respiration and how to care for the system.
- iii) Set up an experiment to demonstrate to the learners.
- iv) Use models of the system to help your learners get to know the organs.
- v) Guide learners to make a clear difference between breathing and respiration.
- vi) Work with your learners to make a model of the respiratory organs for displaying during the School Science Day.

## THEME 3: THE HUMAN HEALTH

### Topic 1: Alcohol, Smoking and Drugs in the Society

Duration: 15 Periods

#### Overview

In our families and communities, we have people who drink alcohol and take drugs, which affect their lives. In this topic, you should guide the learners on dangers of smoking, alcoholism and drug dependency.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) acknowledge that smoking and drugs contain dangerous substances which are harmful to the body.
- ii) acquire appropriate skills to safeguard against smoking, alcoholism and drug abuse.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• describes what smoking, alcohol and drug abuse/misuse are.</li> <li>• explains factors leading to alcoholism, smoking and drug abuse/misuse.</li> <li>• states the effects of alcohol, smoking and drug abuse on an individual, family and</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• pronounces and spells/finger spells words and sentences related to smoking, alcoholism and drug abuse /misuse.</li> <li>• reads/signs words and sentences related to smoking, alcohol, alcoholism,</li> </ul>	<ul style="list-style-type: none"> <li>• Alcohol and alcoholism:               <ul style="list-style-type: none"> <li>- What they are</li> <li>- How alcohol is made</li> <li>- Factors that lead to alcoholism</li> </ul> </li> <li>- Effects of alcoholism on individual, family and society</li> <li>• Smoking:               <ul style="list-style-type: none"> <li>- What smoking is</li> <li>- Type of smoking</li> <li>- Factors that lead to smoking</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Describing alcohol and alcoholism</li> <li>• Describing how alcohol is made locally</li> <li>• Role playing the dangers of alcoholism, smoking, drug abuse/misuse</li> <li>• Practicing acceptable and healthy behaviours to reduce the dangers of alcohol smoking and drug abuse</li> </ul>	<p><b>Life Skills</b></p> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Self-evaluation</li> </ul> <p><b>Self-esteem</b></p> <ul style="list-style-type: none"> <li>• Talking about self</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> </ul> <p><b>Peer resistance</b></p> <ul style="list-style-type: none"> <li>• Standing by one's principle</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Caring for others</li> <li>• Comforting</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<p>society/ community.</p> <ul style="list-style-type: none"> <li>• names essential drugs and drugs of dependency.</li> <li>• mentions effective ways of storing drugs.</li> <li>• lists practices that safeguard against alcoholism, smoking and drug dependency.</li> <li>• writes campaign messages against alcoholism, smoking and drug dependency.</li> </ul>	<p>drug abuse/ misuse.</p> <ul style="list-style-type: none"> <li>• writes/ writes in Braille campaign messages related to smoking, alcohol, alcoholism, drug abuse/ misuse correctly.</li> <li>• recites poems on the effects of smoking and alcoholism.</li> <li>• acts out dialogues about life skills to safeguard against alcoholism, smoking and drug dependency.</li> </ul>	<ul style="list-style-type: none"> <li>- Dangers of smoking</li> <li>- Effects of smoking on individual, family and society</li> <li>• Drugs:             <ul style="list-style-type: none"> <li>- What drugs are</li> </ul> </li> <li>• Essential drugs:             <ul style="list-style-type: none"> <li>- What they are</li> <li>- Storage of drugs</li> </ul> </li> <li>• Characteristics and uses of essential drugs:             <ul style="list-style-type: none"> <li>- Drug abuse, misuse and dependency</li> <li>- Factors that lead to drug abuse, misuse and dependency</li> </ul> </li> <li>• Effects of drug abuse to an individual, family and community</li> <li>• Acceptable/ healthy practices to safeguard against alcoholism, smoking and drug abuse/ dependency</li> <li>• Avoid peer pressure</li> <li>• Joining clubs and societies in schools</li> </ul>	<ul style="list-style-type: none"> <li>• Writing campaign messages related to alcohol, smoking and drug abuse</li> <li>• Reading/ signing words and sentences related to smoking, alcohol, alcoholism, drug abuse</li> </ul>	<p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> <li>• Appreciation</li> <li>• Acceptance</li> <li>• Innovativeness</li> <li>• Honesty</li> <li>• Sympathy</li> <li>• Assertiveness</li> <li>• Confidence</li> </ul>



## Suggested Competences for Assessment

The learner:

- i) lists the effects of alcohol, smoking and drugs to an individual, family and community.
- ii) explains how essential drugs can be stored.
- iii) describes the life skills to safeguard against alcoholism, smoking and drug dependence.
- iv) writes and displays campaign messages against smoking, alcohol and drugs.

## Hints for the Teacher

- i) Invite a resource person to talk to your class about alcohol, smoking and drug abuse/misuse.
- ii) Point out to learners that cigarettes contain substances such as tar and nicotine which are harmful to the body.
- iii) Engage learners in activities that will enable them to develop life skills of resisting smoking, alcoholism, drug abuse and misuse.
- iv) In groups, guide learners to arrange activities where they can dramatize the dangers of smoking, alcoholism and drug abuse.

## THEME 4: SCIENCE IN HUMAN ACTIVITIES AND OCCUPATIONS

### Topic 1: Science at Home and in Our Community

Duration: 5 Periods

#### Overview

Many science activities take place in our homes. Guide learners to discuss these activities that benefit and help them to solve common problems.

#### Learning Outcome

By the end of this topic, the learner should be able to acquire problem-solving skills in life situations of a scientific and technological nature.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>describes ways of preparing clean and safe water for drinking and washing.</li> <li>demonstrates ways of cleaning clothes.</li> <li>prepares clean and safe water for drinking and washing.</li> <li>names water impurities.</li> <li>discusses dangers of water impurities.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>writes/ writes in Braille the steps of preparing clean water for drinking and washing.</li> <li>reads/ signs words, sentences and stories about preparation of clean and safe water for drinking and washing.</li> <li>recites a rhyme related to cleaning clothes.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of clean and safe water for drinking and washing:               <ul style="list-style-type: none"> <li>Boiling</li> <li>Filtering</li> <li>Treating</li> <li>Distilling</li> <li>Decanting</li> </ul> </li> <li>Water impurities:               <ul style="list-style-type: none"> <li>Human wastes</li> <li>Animal waste</li> <li>Pollutants from the farm</li> <li>chemicals</li> <li>Silt</li> </ul> </li> <li>Cleaning clothes in a home:</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrating ways of preparing clean and safe water for drinking and washing</li> <li>Dramatising ways of protecting water sources in our community</li> <li>Practicing how to clean their clothes</li> <li>Reciting rhymes related to cleaning clothes</li> </ul>	<b>Life Skills</b> <b>Critical thinking</b> <ul style="list-style-type: none"> <li>Giving instructions</li> <li>Making choices</li> </ul> <b>Problem solving</b> <ul style="list-style-type: none"> <li>Taking decisions</li> <li>Evaluating facts</li> <li>Self-evaluation</li> </ul> <b>Effective communication</b> <ul style="list-style-type: none"> <li>Making choices</li> <li>Articulation</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Soaking</li> <li>- Sorting</li> <li>- Washing</li> <li>- Rinsing</li> <li>- Drying</li> <li>- Ironing</li> </ul>		<p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Talking about things found at home</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Sympathy</li> <li>• Responsibility</li> <li>• Fluency</li> <li>• Articulation</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) describes what safe drinking water is.
- ii) outlines ways of preparing clean and safe water for drinking and washing.
- iii) describes the steps people should follow to clean clothes in a home.
- iv) carries out a science oriented activity on preparation of clean and safe water during science show.

### Hints for the Teacher

- i) Work with learners in setting up a practical experiment on how to clean dirty water.
- ii) Encourage learners to practically demonstrate the steps people should follow to clean clothes.
- iii) Support learners on how to prepare clean and safe water.
- iv) Invite a resource person to help in conducting a lesson on how to make and preserve clean and safe water.

## THEME 5: THE HUMAN BODY

### Topic 1: The Reproductive System

Duration: 15 Periods

#### Overview

Species of living things reproduce to multiply. In this topic, the learners will study the structure, functions of the male and female reproductive system and process of reproduction.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop further knowledge about his/her reproductive system.
- ii) acquire scientific knowledge and life skills for maintaining the efficiency of his/her reproductive system.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner <ul style="list-style-type: none"> <li>• describes growth and development in humans.</li> <li>• names primary and secondary sex characteristics in both boys and girls.</li> <li>• describes emotional and social changes during growth and development.</li> <li>• mentions the functions of male and female</li> </ul>	The learner <ul style="list-style-type: none"> <li>• pronounces and spells/finger spells words related to the reproductive system.</li> <li>• reads/signs words, sentences and stories about puberty, adolescence and care for reproductive organs.</li> <li>• recites rhymes about primary and secondary sex characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>• Growth and development in human beings:               <ul style="list-style-type: none"> <li>- What growth and development are</li> <li>- Growth and development stages</li> <li>- Growth from childhood</li> </ul> </li> <li>• Puberty and adolescence               <ul style="list-style-type: none"> <li>- Primary and secondary sex characteristics</li> <li>- Social and emotional changes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Explaining how growth and development occur in human</li> <li>• Drawing and labelling parts of the reproductive organs</li> <li>• Discussing primary and secondary sex characteristics in both boys and girls</li> <li>• Discussing problems associated</li> </ul>	<p><b>Life Skills</b></p> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> <li>• Evaluating facts</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Verbal and non-verbal expressions</li> </ul> <p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Acceptance</li> <li>• Refusal</li> <li>• Making choices</li> </ul> <p><b>Peer pressure resistance</b></p>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>reproductive cells.</p> <ul style="list-style-type: none"> <li>• discusses fertilisation/ conception and pregnancy in humans.</li> <li>• lists the diseases and disorders of the reproductive system.</li> <li>• states causes, consequences and ways of avoiding teenage pregnancy.</li> <li>• discusses family planning and child spacing.</li> </ul>	<ul style="list-style-type: none"> <li>• acts out dialogues about problems in pregnancy.</li> <li>• reads/signs and writes/ writes in Braille information on reproductive health and family planning.</li> </ul>	<ul style="list-style-type: none"> <li>• Reproductive organs and cells:                             <ul style="list-style-type: none"> <li>- Male &amp; female reproductive system</li> <li>- Fertilisation</li> <li>- Conception and pregnancy</li> <li>- Development after fertilisation</li> </ul> </li> <li>• Reproductive health and problems                             <ul style="list-style-type: none"> <li>- Care for reproductive organs</li> <li>- Problems in pregnancies (e.g. morning sickness, swelling of feet, low back pain, chest pain, swollen veins, constipation, anemia, malnutrition, abortion, miscarriage)</li> <li>- Common diseases and disorders of the reproductive system (gonorrhoea, syphilis, candida, premenstrual syndrome (PMS))</li> </ul> </li> </ul>	<p>with teenage pregnancy</p> <ul style="list-style-type: none"> <li>• Describing different family planning methods</li> <li>• Discussing the advantages of child spacing</li> </ul>	<ul style="list-style-type: none"> <li>• Standing by one's principles, values and beliefs</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Responsibility</li> <li>• Fluency</li> <li>• Logic</li> <li>• Acceptance</li> <li>• Standing by one's principles</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Causes, signs/ symptoms (prevention and treatment of common diseases)</li> <li>• Teenage pregnancy:               <ul style="list-style-type: none"> <li>- Meaning and consequences</li> <li>- How it can be avoided</li> </ul> </li> <li>• Family planning and child spacing</li> <li>• Importance, methods, myths and misconceptions about family planning</li> </ul>		

### Suggested Competences for Assessment

The learner:

- i) mentions the common diseases of the reproductive system.
- ii) explains what puberty and adolescence are.
- iii) outlines the secondary sex characteristics in an adolescence.

### Hints for the Teacher

- i) Guide learners to acquire knowledge and skills about reproductive health.
- ii) Use the PIASCY materials, variety of models and charts.
- iii) Learners need to understand the sexual maturity growth and development.
- iv) Invite resource persons, male and female, to give a health talk to boys and girls respectively.
- v) Help learners to make a clear difference between primary and secondary sex characteristics.

## TERM 2

### THEME 5: THE HUMAN BODY

#### Topic 2: The Muscular/Skeletal System

Duration: 15 Periods

#### Overview

Learners already have some basic knowledge about major organs and other systems of the body. This topic describes different bones and muscles and how they work to aid movement. The skeleton provides a structure to which flesh is attached and gives shape to the body.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop appreciation for the human body as a system of muscles and bones.
- ii) develop knowledge and skills for maintaining the body as a system.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• names different bones and muscles of the human body.</li> <li>• identifies different joints found in the human body.</li> <li>• draws and labels the skeletal / voluntary muscles.</li> <li>• demonstrates correct body posture.</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• pronounces and spells/finger spells the different bones and muscles of the human body correctly.</li> <li>• reads/ signs words, sentences and stories about muscles and joints in the body.</li> </ul>	<ul style="list-style-type: none"> <li>• The human skeleton:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Structure of the human skeleton</li> <li>- Names of the bones</li> <li>- Types of bones (long, short, irregular, flat)</li> </ul> </li> <li>• Bones and joints:               <ul style="list-style-type: none"> <li>- Concept of joints</li> <li>- Types (movable, gliding, fixed,</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Drawing and labelling the structure of the human skeleton</li> <li>• Identifying different types of bones and muscles in the body</li> <li>• Discussing about joints and muscles that make up the human skeleton</li> <li>• Demonstrating healthy habits that</li> </ul>	<p><b>Life Skills</b></p> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Finding different strategies</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Supporting others</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Caring for oneself</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Appreciation</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• describes good health habits for the body systems.</li> <li>• states diseases and disorders of bones and muscles in the body.</li> <li>• explains ways of preventing skeletal and muscular diseases.</li> </ul>	<ul style="list-style-type: none"> <li>• recites/ signs poems on diseases and disorders of muscles and bones.</li> <li>• writes/ writes in Braille guided notes on the system.</li> <li>• reads/signs words and sentences about the structure of the skeletal system and voluntary muscles.</li> </ul>	<p>ball and socket, hinge joints)</p> <ul style="list-style-type: none"> <li>• Voluntary and involuntary muscles:               <ul style="list-style-type: none"> <li>- Characteristics</li> <li>- Examples &amp; importance of voluntary and involuntary muscles</li> </ul> </li> <li>• Health habits that help keep the system healthy:               <ul style="list-style-type: none"> <li>- Healthy diet (vitamins, salts and protein); reduction in childbirth, calcium &amp; other food supplements for the elderly</li> <li>- Regular medical checkup, walking/sitting body posture; flat shoes; physical exercise; accidents</li> </ul> </li> <li>• Diseases and disorders of bones, muscles and the system               <ul style="list-style-type: none"> <li>- Rickets</li> <li>- Osteoporosis</li> <li>- Fractures</li> <li>- Strains/sprains</li> </ul> </li> </ul>	<p>keep the skeletal and muscular system in a good working condition</p> <ul style="list-style-type: none"> <li>• Explaining different skeletal and muscular diseases and disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Concern</li> <li>• Care</li> <li>• Acceptance</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
		<ul style="list-style-type: none"> <li>- Causes, prevention and treatment</li> <li>- Importance of correct posture</li> <li>• Prevention of muscular and skeletal diseases</li> <li>- Correct tasks position</li> <li>- Good health practices</li> </ul>		

### Suggested Competences for Assessment

The learner:

- i) names different bones and muscles of the human body.
- ii) explains functions of the muscular and skeletal system.
- iii) models the human skeleton.
- iv) uses observation to describe different bones of the human body.

### Hints for the Teacher

- i) Emphasise activities and practices that can keep the body systems in a healthy working condition.
- ii) Guide learners to relate the names of body structures to the parts of their own body which they learnt in level I and level II classes
- iii) Guide learners to discuss the uses of the skeletal and muscular system.
- iv) Let learners name the protective functions of the following parts:
  - the skull
  - the rib cage
  - the back bone and the pelvis

## THEME 6: MATTER AND ENERGY

### Topic 1: Sound Energy

Duration: 10 Periods

#### Overview

Sound is all around us. In this topic, you need to guide learners to know how to explore the sound we hear and how it is produced.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the natural and artificial sources of sound.
- ii) acquire scientific knowledge on how sound is produced, stored and reproduced.
- iii) appreciate the importance of the ear as an organ of perceiving sound.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• describes sound energy.</li> <li>• experiments on sound as a form of energy.</li> <li>• names sources of sound.</li> <li>• states the different ways in which sound is produced, stored and reproduced.</li> <li>• discusses different ways on how sound travels in different materials.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/finger spells words related to sound correctly.</li> <li>• reads/signs words, sentences and stories about sound energy.</li> <li>• spells/finger spells and pronounces names of different parts of the human ear.</li> <li>• reads/signs words and sentences</li> </ul>	<ul style="list-style-type: none"> <li>• Sound energy:               <ul style="list-style-type: none"> <li>- What it is</li> </ul> </li> <li>• Sources of sound:               <ul style="list-style-type: none"> <li>- Natural and artificial</li> </ul> </li> <li>• How sound is produced, stored and reproduced:               <ul style="list-style-type: none"> <li>- Production of sound</li> <li>- Methods of storage and reproduction</li> <li>- Importance of sound</li> </ul> </li> <li>• Pitch, frequency and volume:               <ul style="list-style-type: none"> <li>- Concept of pitch</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Identifying sources of sound</li> <li>• Carrying out experiments on sound as a form of energy</li> <li>• Making simple models of the human ear</li> <li>• Producing and storing sound using appropriate devices</li> <li>• Mentioning what an echo is and its advantages</li> </ul>	<p><b>Life Skills</b></p> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Audibility</li> <li>• Accuracy</li> <li>• Responding to questions</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Logical reasoning</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Concern</li> <li>• Acceptance</li> <li>• Responsibility</li> <li>• Sympathy</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>• draws and labels the different parts of the human ear.</li> <li>• states the functions of the different parts of the human ear.</li> <li>• names diseases and disorders of the human ear.</li> <li>• compares the human ear with organs of hearing in other animals.</li> <li>• discusses ways of caring for the human ear.</li> <li>• mentions the importance of echo to people.</li> </ul>	<p>about diseases and disorders of the human ear.</p> <ul style="list-style-type: none"> <li>• writes/ writes in Braille sentences comparing the human ear with organs of hearing of other animals.</li> </ul>	<ul style="list-style-type: none"> <li>- Frequency and volume</li> <li>- Factors affecting pitch and volume</li> <li>• How sound travels:               <ul style="list-style-type: none"> <li>- Transmission in solid, liquid and gas</li> </ul> </li> <li>• Speed:               <ul style="list-style-type: none"> <li>- determining and calculating speed</li> </ul> </li> <li>• Echo:               <ul style="list-style-type: none"> <li>- Concept of echo</li> <li>- Application and reduction of echo</li> </ul> </li> <li>• The human ear:               <ul style="list-style-type: none"> <li>- Structure, functions, diseases, disorders and care for human ear</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>• Appreciation</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) lists the sources of sound.
- ii) describes how sound travels.
- iii) explains how to care for the human ear.
- iv) prepares, carries out and reports on experiment on sound with different materials and conditions.

### **Hints for the Teacher**

- i) Help learners to carry out experiments on sound as a form of energy and how sound stimulates the sense of hearing.
- ii) Provide materials which enable your learners carry out experiments on sound with different materials and environment.
- iii) In groups, work with learners to try out experiments that will show how pitch, vibration, volume and frequency are produced, stored and reproduced.
- iv) Consult the teacher of music and arrange for the learners to differentiate sound produced by different musical instruments.

## Topic 2: Electricity and Magnetism

Duration: 13 Periods

### Overview

Electricity and magnetism are essential aspects of science and technology. Electricity is a key source of energy for industries, homes and the modern world of work. There are many electric types of equipment around us which should be used to provide interactions with common materials.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of electricity and magnetism in the modern world of work.
- ii) develop the necessary scientific knowledge, principles and skills to solve problems related to electricity and magnetism.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names sources and types of electricity.</li> <li>• draws and labels the parts of an electric circuit.</li> <li>• draws and labels the electric bell.</li> <li>• explains ways of making temporary magnets.</li> <li>• discusses the importance of electricity in solving</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/ finger spells names of different parts of an electric circuit.</li> <li>• reads/signs words and sentences on electricity and magnetism.</li> <li>• writes/ writes in Braille words, sentences and short stories about electricity and magnetism</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Sources of electricity</li> <li>- Types of electricity: current and static</li> <li>- Conductors and insulators</li> <li>- Electric circuits: short circuits and causes</li> </ul> </li> <li>• Safety/ precautions in handling electricity and electrical appliances</li> <li>• Importance of electricity in solving everyday problems</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying sources and types of electricity</li> <li>• Assembling and naming parts of an electric circuit</li> <li>• Carrying out experiments to generate static electricity</li> <li>• Making temporary magnets and storing magnets properly</li> <li>• Practicing safety precautions</li> </ul>	<p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> </ul> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Innovativeness</li> <li>• Learning new ideas</li> </ul> <p><b>Effective Communication</b></p> <ul style="list-style-type: none"> <li>• Accuracy</li> <li>• Confidence</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
day to day problems. <ul style="list-style-type: none"> <li>discusses the dangers and safety precautions in handling electricity and electrical appliances.</li> <li>identifies natural and artificial magnets.</li> <li>demonstrates ways of making temporary magnets.</li> <li>discusses electricity and magnetism in the modern world of work.</li> <li>discusses the process involved in generating electricity using a dynamo.</li> </ul>	in the modern world of work. <ul style="list-style-type: none"> <li>recites / signs rhymes/ poems about the electric bell.</li> </ul>	<ul style="list-style-type: none"> <li>Magnetism:               <ul style="list-style-type: none"> <li>Natural and artificial magnets</li> <li>Making temporary magnets</li> <li>Generating electricity using a dynamo</li> <li>Permanent magnets</li> <li>Uses of magnets and the electric bell</li> <li>Electricity and magnetism in the modern world of work</li> </ul> </li> </ul>	in handling electricity and electrical appliances	<b>Values</b> <ul style="list-style-type: none"> <li>Making right choices</li> <li>Confidence</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) names the parts of an electric circuit and connects a simple electric circuit.
- ii) lists safety precautions on dangers of electricity.
- iii) makes magnets using different methods.
- iv) explains the importance of electricity in solving everyday problems.
- v) draws and labels ways of making temporary magnets.

### Hints for the Teacher

- i) Discuss with learners the importance of a magnet in the modern world of work with heavy use of electronics.
- ii) Prepare learners and guide them to handle electricity and electric appliances safely.
- iii) Use the commonly available materials to help your learners do experiments on static electricity, electric circuits and to examine parts of an electric bulb, bell and switch.
- iv) Demonstrate to your learners how electricity can be used to make magnets and how magnets can be used to produce electricity.
- v) In groups, guide learners to design and construct simple electrical devices such as electric bell and a model of a traffic light system.
- vi) Guide learners on how to make an electrical bell.
- vii) Guide learners to make temporary magnets using different methods.

## Topic 3: Simple Machines and Friction

Duration: 12 Periods

### Overview

Machines are very important in our day-to-day life. Examples of simple machines include tools we use at home, in carpentry workshops, garages and other activities. Sometimes learners use tools without knowing they are simple machines.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of machines in every day life situations.
- ii) develop the capacity to simplify work by using knowledge and principles to make and use simple machines.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names simple machines.</li> <li>• draws and labels diagrams to show parts of a lever, ramp, wedge, screw, wheel and axle.</li> <li>• observes how different simple machines work.</li> <li>• describes different classes of levers.</li> <li>• models simple machines</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• writes/ writes in Braille words, sentences and stories about simple machines.</li> <li>• writes/ writes in Braille words and sentences to show parts of a lever, ramp, wedge, screw, wheel and axle.</li> <li>• tells/retells/ signs stories about effects of friction on matter.</li> <li>• writes/ writes in Braille sentences on</li> </ul>	<ul style="list-style-type: none"> <li>• Simple machines:               <ul style="list-style-type: none"> <li>- What they are</li> </ul> </li> <li>• Examples of simple machines:               <ul style="list-style-type: none"> <li>- Levers</li> <li>- Inclined planes (ramps and stairs/ steps)</li> <li>- Wedges, screws, pulleys, wheels and axles</li> </ul> </li> <li>• Applications of simple machines in daily life experiences</li> </ul>	<ul style="list-style-type: none"> <li>• Drawing and labelling simple machines</li> <li>• Describing how different simple machines work</li> <li>• Experimenting on things that usually wear out due to friction</li> <li>• Demonstrating how an inclined plane works</li> <li>• Stating different ways of reducing friction</li> <li>• Modeling and labeling simple machines</li> </ul>	<p><b>Decision making</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> <li>• Giving instructions</li> </ul> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Taking decisions</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making use of the available information</li> <li>• Finding different strategies</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Appreciation</li> <li>• Responsibility</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<ul style="list-style-type: none"> <li>using local materials.</li> <li>• carries out experiments on levels.</li> <li>• practises use of wedges.</li> <li>• calculates mechanical advantages (m.a) of machines.</li> <li>• describes what screws are and how they work.</li> <li>• states the meaning and importance of friction.</li> <li>• investigates and states the effects of matter.</li> </ul>	<ul style="list-style-type: none"> <li>ways to increase or reduce friction.</li> <li>• reads/signs words, sentences and stories on frictional forces and how simple machines operate.</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical advantage</li> <li>• Principles of moments</li> <li>• Friction: <ul style="list-style-type: none"> <li>- Example of friction in nature</li> <li>- Usefulness of friction and how to increase it</li> <li>- Friction as a nuisance force and how to reduce it</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Calculating mechanical advantage of machines</li> <li>• Mentioning uses of simple machines</li> </ul>	<ul style="list-style-type: none"> <li>• Care</li> <li>• Making right choices</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) sets experiments, observes, records and reports on the working of different simple machines.
- ii) carries out experiments to illustrate how friction can be reduced or increased.
- iii) describes the different ways friction can be increased or reduced.
- iv) groups the levers under their different classes.
- v) draws and labels different simple machines.
- vi) relates the working of human body parts to the examples of simple machines.
- vii) calculates mechanical advantage of a machine.

### **Hints for the Teacher**

- i) In groups, guide learners to try out how to operate simple machines.
- ii) Ensure that you have the necessary resources for carrying out experiments and invite a resource person to assist.
- iii) Guide learners to make simple machines from local materials.
- iv) Guide learners to calculate mechanical advantage of simple machines.

## Topic 4: Light Energy

Duration: 13 Periods

### Overview

Light is a natural energy which comes from the sun. It enables us to see things; plants to manufacture food; and natural life to continue. When light interacts with other things in nature, some natural phenomena, like rainbow, are seen.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of light as a form of energy in nature.
- ii) develop the necessary scientific knowledge, principles and skills to solve problems related to light in real life situations.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills And Values
The learner: <ul style="list-style-type: none"> <li>• names sources of light.</li> <li>• demonstrates an experiment on how light travels and the effects of different materials on light.</li> <li>• draws and labels optical instruments, the human eye and its defects.</li> <li>• describes how different shadows are formed.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• reads/signs words, sentences and short stories about light, optical instruments and the eye.</li> <li>• acts a dialogue on the rainbow.</li> <li>• writes/ writes in Braille a brief description on the interaction between light and</li> </ul>	<ul style="list-style-type: none"> <li>• Light as a form of energy:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Sources of light (natural and artificial)</li> <li>- How light travels</li> <li>- Rays, beams</li> <li>- Importance of light</li> </ul> </li> <li>• Effects of different materials on light:               <ul style="list-style-type: none"> <li>- Transparent</li> <li>- Translucent</li> <li>- Opaque</li> </ul> </li> <li>• Shadows:               <ul style="list-style-type: none"> <li>- Types of shadows</li> <li>- Eclipses</li> <li>- Pin hole camera</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Explaining what light is</li> <li>• Mentioning different sources of light</li> <li>• Drawing and labelling optical instruments</li> <li>• Experimenting with light (spectrum and shadow formation, reflection and refraction)</li> <li>• Comparing the human eye and the lens camera</li> <li>• Modeling a periscope</li> </ul>	<ul style="list-style-type: none"> <li><b>Life Skills</b></li> <li><b>Critical thinking</b> <ul style="list-style-type: none"> <li>• Analysing statements</li> <li>• Taking decisions</li> </ul> </li> <li><b>Decision making</b> <ul style="list-style-type: none"> <li>• Giving instructions</li> </ul> </li> <li><b>Problem solving</b> <ul style="list-style-type: none"> <li>• Asking questions</li> <li>• Evaluating facts</li> </ul> </li> <li><b>Values</b> <ul style="list-style-type: none"> <li>• Care</li> </ul> </li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills And Values
<ul style="list-style-type: none"> <li>• states the laws of reflection.</li> <li>• calculates simple problems on reflection.</li> <li>• describes images formed by plane mirrors.</li> <li>• discusses how rainbows are formed.</li> <li>• experiments the effects of lenses on the beams of light.</li> <li>• names the parts of a lens camera.</li> <li>• describes the working of the human eye as an optical organ.</li> <li>• lists the different human eye defects and their corrections.</li> <li>• practises correct care for the human eye.</li> </ul>	<p>different materials.</p>	<ul style="list-style-type: none"> <li>• Reflection:               <ul style="list-style-type: none"> <li>- Types of reflection</li> <li>- Periscopes</li> <li>- Characteristics of images on plane mirrors</li> <li>- Laws of reflection</li> </ul> </li> <li>• Refraction:               <ul style="list-style-type: none"> <li>- What it is</li> <li>- Its effects (dispersion and rainbow)</li> </ul> </li> <li>• Lenses:               <ul style="list-style-type: none"> <li>- Types</li> <li>- Effects on light beams</li> <li>- Magnifying glass</li> <li>- The lens camera</li> </ul> </li> <li>• The human eye               <ul style="list-style-type: none"> <li>- Structure/ functions of the parts</li> <li>- Characteristics of images</li> <li>- The eye and camera</li> <li>- Common eye defects and their corrections</li> <li>- Diseases and disorders of the human eye</li> <li>- Care for the human eye</li> </ul> </li> </ul>	<p>and pinhole camera</p>	<ul style="list-style-type: none"> <li>• Acceptance</li> <li>• Making right choices</li> <li>• Responsibility</li> <li>• Sympathy</li> </ul>

## Suggested Competences for Assessment

The learner:

- i) carries out experiments involving light energy.
- ii) names sources of light energy.
- iii) describes effects of light on different materials.
- iv) draws and labels the structure of the human eye.
- v) makes models of the human eye.
- vi) explains clearly natural phenomena involving light energy.

## Hints for the Teacher

- i) Guide learners in activities that will help them gain understanding of the importance of light in our lives.
- ii) Bring out the structure of the eye and show its relation to light energy.
- iii) Carry out experiments that differentiate between reflection and refraction.
- iv) Work with your learners to construct and produce a simple equipment which uses light energy.
- v) Bring out the relationship between angles of incidence and reflection.
- vi) Let the learners construct pinhole cameras, periscopes and model a lens camera.

## THEME 7: COMMUNITY POPULATION AND FAMILY LIFE

### Topic 1: Population and Health

Duration: 08 Periods

#### Overview

Learners have been introduced to primary health care, its principles, elements and activities in the previous level. This topic is basically on social problems people in the community may face.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) acquire basic skills and practices to prevent diseases in the community.
- ii) develop knowledge and skills for collecting, recording, organising and interpreting information on population and health.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names types of common sicknesses in a home and community.</li> <li>• describes causes of common sicknesses in a home and community.</li> <li>• explains what community health is.</li> <li>• states examples of anti-social behaviours</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• pronounces and spells/finger spells names of common sicknesses in a home and their causes.</li> <li>• reads/signs words, sentences and stories, on how to control sicknesses in a home and community.</li> </ul>	<ul style="list-style-type: none"> <li>• Community health and social problems:               <ul style="list-style-type: none"> <li>- What community health is</li> <li>- Types and causes of common sicknesses in a home</li> </ul> </li> <li>- Community health and social problems among young people</li> <li>- Anti-social behaviours</li> </ul>	<ul style="list-style-type: none"> <li>• Explaining community health and social problems</li> <li>• Describing anti-social behaviours and practising ways of avoiding such behaviours</li> <li>• Demonstrating some of the activities to address health concerns in our family</li> </ul>	<p><b>Life Skills</b></p> <p><b>Coping with stress</b></p> <ul style="list-style-type: none"> <li>• Accepting advice</li> <li>• Being patient</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Forgiving others</li> <li>• Caring for others</li> </ul> <p><b>Effective Communication</b></p>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<p>and sexual deviations.</p> <ul style="list-style-type: none"> <li>• discusses dangers of anti-social behaviours and sexual deviations.</li> <li>• names ways of avoiding sexual deviation.</li> <li>• lists activities to address health concerns.</li> <li>• demonstrates some of the activities to address health concerns.</li> <li>• collects information/ data on human population and health in a home and community.</li> </ul>	<ul style="list-style-type: none"> <li>• recites poems on ways of avoiding sexual deviation.</li> <li>• acts activities to address health concerns and data collection.</li> <li>• writes/ writes in Braille information /data on health and social problems in a home and community.</li> </ul>	<ul style="list-style-type: none"> <li>- Sex deviations (bestiality, incest, homosexuality, lesbianism, oral sex, masturbation )</li> <li>- Controlling common sickness in a home</li> <li>- Ways of addressing social problems in the community</li> <li>• Activities to address health concerns:                             <ul style="list-style-type: none"> <li>- Health survey</li> <li>- Health education</li> </ul> </li> <li>• Collecting information/ data on human population (demography )</li> <li>- Simple health survey /data collection on homes and community</li> <li>- School health clubs</li> </ul>	<p>and community</p> <ul style="list-style-type: none"> <li>• Reciting poems about population and health</li> </ul>	<ul style="list-style-type: none"> <li>• Using polite language</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Patience</li> <li>• Concern</li> <li>• Acceptance</li> <li>• Responsibility</li> <li>• Sharing</li> </ul>

## **Suggested Competences for Assessment**

The learner:

- i) names types of sicknesses in a home and community.
- ii) lists forms of anti-social behaviours and sexual deviations.
- iii) collects information and data on human health in homes and the community.
- iv) carries out population surveys and identifies community health problems.
- v) plans and carries out population related health activities.
- vi) prepares a simple report on a survey on health activities.
- vii) recites poems about population and health.

## **Hints for the Teacher**

- i) Involve learners in community health activities which will enable them use the knowledge they have so far gained.
- ii) Bring out information that will enable learners understand ways of avoiding sexual deviation and activities that address health concerns.
- iii) Ensure that learners do not get exposed to what is beyond their age.
- iv) Guide learners on population survey, population problems, identification and planning course of action.
- v) Carry out projects which include gathering, organising, interpreting and sharing data about population and health concerns in the community.
- vi) Help learners to evaluate activities of health clubs as they conclude their primary cycle.
- vii) Let learners recite poems about population and health.



## THEME 8: THE HUMAN BODY

### Topic: The Excretory System

Duration:13 Periods

#### Overview

The excretory system involves a number of organs like the kidney, skin and lungs which have specialised structures. When the body systems work, some materials are used up by the body. The waste materials need to be removed from the tissues in the body through the excretory system. The removal of wastes from the body is facilitated by our good health habits.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of the excretory system.
- ii) acquire the necessary scientific knowledge, principles and skills for maintaining the efficiency of the system.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• explains what excretion is.</li> <li>• names different excretory organs in the human body.</li> <li>• draws and labels the excretory organs.</li> <li>• describes the functions of the excretory organs in</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• writes/ writes in Braille/spells/finger spells the excretory organs in the human body correctly.</li> <li>• acts a dialogue on how the system works.</li> <li>• reads/signs words, sentences and stories about the excretory system.</li> <li>• writes/ writes in Braille brief notes on excretory organs and how the excretory system works</li> </ul>	<ul style="list-style-type: none"> <li>• Excretion               <ul style="list-style-type: none"> <li>- What excretion is</li> </ul> </li> <li>• Excretory organs (human skin, urinary system, kidney, lungs)</li> <li>• The human skin:               <ul style="list-style-type: none"> <li>- Structure</li> <li>- Functions</li> <li>- Diseases, disorders and care for the human skin</li> </ul> </li> <li>• The kidney:</li> </ul>	<ul style="list-style-type: none"> <li>• Naming the excretory organs</li> <li>• Drawing and labelling different excretory organs</li> <li>• Mentioning different diseases and disorders of the excretory system</li> <li>• Discussing ways of</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Making the best use of the available information</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Making choices</li> </ul> <p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Comforting</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Responsibility</li> <li>• Care</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
the human body. • names diseases of the excretory organs in the human body. • states the correct ways of keeping the excretory organs healthy.		- Structure - Functions of the parts of the kidney - Diseases and disorders of the kidney - Importance of the kidney	keeping the excretory system healthy	• Concern • Acceptance

### Suggested Competences for Assessment

The learner:

- i) names different organs of the excretory system.
- ii) describes the functions of the different organs of the excretory system.
- iii) draws and labels the different organs of the excretory system.
- iv) makes models of the kidneys, skin, lungs and the liver.

### Hints for the Teacher

- i) Guide learners to relate this topic to other topics such as respiratory and circulatory systems which they learnt in lower levels. The diseases related to the organs of the excretory system should be adequately covered.
- ii) Resource persons should be invited to demonstrate to learners how to take care of different organs of the excretion systems.
- iii) Help the learners appreciate the practices that keep the excretory organs healthy.
- iv) Work with your learners to model some of the excretory organs.
- v) Help the learners to relate the excretory system to diseases particularly sexually transmitted infections (STIs) and communicable diseases.

## TERM 3

### THEME 9: THE ENVIRONMENT

#### Topic 1: Resources in the Environment

Duration: 28 Periods

#### Overview

There are many energy resources in the environment. Links within the different aspects should be used to develop knowledge of energy resources and how people can utilise them.

#### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop awareness of different energy resources existing in the environment and their uses.
- ii) develop a sense of respect for the environment as a resource base.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
<p>The learner:</p> <ul style="list-style-type: none"> <li>• identifies resources from living and non-living things.</li> <li>• groups examples of resources under living and non-living things.</li> <li>• describes ways of harvesting resources.</li> <li>• writes campaign messages for sustainable</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• pronounces and spells/ finger spells living and non-living resources correctly.</li> <li>• recites rhymes about resources</li> <li>• reads/signs words, sentences and stories about resources.</li> <li>• matches words and</li> </ul>	<ul style="list-style-type: none"> <li>• Different forms of resources in the environment:               <ul style="list-style-type: none"> <li>- Non-living resources (soil, minerals, sand, fuel, water and air)</li> <li>- Living things as resources (plants; fibers, wood, food and</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Explaining resources and grouping them under living and non-living things</li> <li>• Demonstrating the best practices in harvesting resources.</li> <li>• Dramatising how to conserve environmental resources</li> <li>• Drawing renewable</li> </ul>	<p><b><u>Life Skills</u></b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Analysing statements</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Imitating new ideas</li> <li>• Innovativeness</li> </ul> <p><b>Self-awareness</b></p> <ul style="list-style-type: none"> <li>• Finding different strategies</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
use of available resources in the environment . • collects renewable and non-renewable resources.	sentences about how people make use of renewable and non-renewable resources and their conservation.	medicine, animals; biogas, skins, hides, milk, honey and medicine) • Harvesting resources • How people make use of available resources • Renewable and non-renewable resources • Caring for and conserving resources	and non-renewable resources	• Making choices  <b>Values</b> • Care • Concern • Responsibility • Confidence

### Suggested Competences for Assessment

The learner:

- i) carries out experiments involving light.
- ii) names sources of light.
- iii) describes effects of light on different materials.
- iv) draws and labels the structure of the human eye.
- v) makes models of the eye indicating different structures.
- vi) explains clearly natural phenomena involving light energy.

### Hints for the Teacher

- i) Help learners to understand that light is a very essential natural form of energy.
- ii) Learners should be guided to identify energy resources in the environment
- iii) Let learners carry out a simple practical work like using steam to drive a propeller, producing biogas from animal wastes and plant residues and making solar equipment.
- iv) You can organise study trips to different places where energy is being generated.

- v) Help learners to construct pinhole cameras, periscopes and model lens cameras.
- vi) Bring out clearly the relationships of angles of incidence and refraction.
- vii) Work with learners to construct and produce simple equipment which uses light energy.

## Topic 2: Energy Resources in the Environment

Duration: 28 Periods

### Overview

Since learners have had experiences and lessons of various resources of the environment, the teacher is expected to enable them develop skills and knowledge of utilising energy resources.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) appreciate the importance of the environment as a resource base.
- ii) acquire scientific knowledge and skills for harvesting and using resources in the environment.

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names different energy resources and their sources.</li> <li>• states the importance of different energy resources.</li> <li>• carries out simple experiments using energy from wind and steams.</li> <li>• demonstrates how to make a biogas digester and solar equipment.</li> <li>• states activities</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• writes/ short descriptions on energy resources and sources to people in the environment.</li> <li>• reads/signs words and sentences about energy resources and their sources.</li> <li>• acts out dialogues related to energy resource conservation.</li> </ul>	<ul style="list-style-type: none"> <li>• Energy resources and their sources:               <ul style="list-style-type: none"> <li>- Energy resources from water (hydro steam engines, tidal energy)</li> <li>- Energy resources from fossil fuels</li> <li>- Energy resources from plants (bio fuel and bio gas)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Explaining resources and grouping them under living and non-living things</li> <li>• Demonstrating best practices in harvesting resources</li> <li>• Dramatising how to conserve resources in the environment</li> <li>• Demonstrating how to make a biogas digester and solar equipment</li> </ul>	<p><b>Life Skills</b></p> <p><b>Critical thinking</b></p> <ul style="list-style-type: none"> <li>• Responding to questions</li> <li>• Analysing statements</li> <li>• Finding different ways of doing things</li> </ul> <p><b>Effective communication</b></p> <ul style="list-style-type: none"> <li>• Confidence, verbal and non-verbal expressions of ideas</li> </ul> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Appreciation</li> <li>• Care</li> </ul>

Subject Competences	Language Competences	Content	Suggested Teaching/Learning Activities	Life Skills and Values
<p>which can cause safe and sustainable ways of using energy resources.</p> <ul style="list-style-type: none"> <li>• lists activities that conserve energy resources.</li> </ul>		<ul style="list-style-type: none"> <li>- Energy resources from the sun (solar)</li> <li>• Importance of other different energy resources</li> <li>• Conservation of different energy resources</li> </ul>		<ul style="list-style-type: none"> <li>• Confidence</li> <li>• Making right choices</li> </ul>

### Suggested Competences for Assessment

The learner:

- i) names different energy resources and their uses.
- ii) discusses the importance of different energy resources to people and the environment.
- iii) describes the contribution of wind to available energy resources.
- iv) sets up an experiment to demonstrate the use of wind, steam and solar energy.

### Hints for the Teacher

- i) Encourage learners to carry out simple practical work like using steam to drive a propeller, producing biogas from animal wastes and plant residues and making solar equipment.
- ii) Organise study trips to different places where energy is being generated and used.
- iii) Clearly differentiate between renewable and non-renewable resources.
- iv) Teach learners to use technology to produce articles by utilising resources like solar energy and water.

## Topic 3: Interdependence of Things in the Environment

Duration: 28 Periods

### Overview

Animals, plants and other things in the environment need each other for survival. Energy which is important in life needs to flow from one thing of nature to another. Some living things benefit from one another. This topic discusses the ways things in the environment benefit from each other.

### Learning Outcomes

By the end of this topic, the learner should be able to:

- i) develop an understanding of the interdependence of things in the environment.
- ii) appreciate the co-existence of things in the environment.

Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
The learner: <ul style="list-style-type: none"> <li>• names the components of the environment.</li> <li>• describes how plants benefit from animals and vice versa.</li> <li>• describes ways of caring for animals and plants.</li> <li>• discusses the importance of agro forestry.</li> <li>• starts and manages a school/home woodlot project.</li> </ul>	The learner: <ul style="list-style-type: none"> <li>• spells/finger spells names of components of the environment correctly.</li> <li>• reads/signs words and sentences about interdependence of plants and animals.</li> <li>• writes/ writes in Braille a story about coal and petroleum.</li> <li>• writes/ writes in Braille steps/procedures of making a biogas digester.</li> </ul>	<ul style="list-style-type: none"> <li>• Components of the environment:               <ul style="list-style-type: none"> <li>- Plants</li> <li>- Animals</li> <li>- Water bodies</li> <li>- Soil</li> <li>- Air</li> </ul> </li> <li>• Interdependence of plants and animals:               <ul style="list-style-type: none"> <li>- Animals depend on other animals</li> <li>- Animals depend on plants</li> <li>- Plants depend on other plants</li> <li>- Plants depend on animals</li> </ul> </li> <li>• Interdependence of living things and non-living things:</li> </ul>	<ul style="list-style-type: none"> <li>• Describing the different components of the environment</li> <li>• Explaining how plants and animals benefit from each other</li> <li>• Starting and managing an agro-forestry project</li> </ul>	<p><b>Life Skills</b></p> <p><b>Creative thinking</b></p> <ul style="list-style-type: none"> <li>• Finding different ways of doing things</li> <li>• Taking decisions</li> <li>• Evaluating facts</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>• Listening to and evaluating what others say</li> <li>• Listening to others</li> </ul>



Subject Competences	Language Competences	Content	Suggested Teaching/ Learning Activities	Life Skills and Values
	<ul style="list-style-type: none"> <li>• writes/ writes in Braille steps for setting up solar equipment.</li> <li>• acts a dialogue about components of the environment and agro-forestry.</li> </ul>	<ul style="list-style-type: none"> <li>- Animals depend on non-living things (air, water, soil)</li> <li>- Plants depend on non-living things</li> <li>- Non-living things benefit from living things</li> <li>• Agro-forestry and its importance in the environment:                             <ul style="list-style-type: none"> <li>- Growing crops and trees together</li> <li>- Rearing animals and growing trees on the same farm</li> <li>- Growing crops, rearing animals and growing trees on the same farm</li> <li>- Care for trees in agro-forestry</li> <li>- Proper harvesting of trees in agro-forestry (pollarding, coppicing and lopping)</li> </ul> </li> <li>• Starting and managing a school/ home woodlot project</li> </ul>		<p><b>Empathy</b></p> <ul style="list-style-type: none"> <li>• Supporting other</li> </ul> <p><b>Assertiveness</b></p> <p><b>Values</b></p> <ul style="list-style-type: none"> <li>• Care</li> <li>• Concern</li> <li>• Love</li> <li>• Sharing</li> <li>• Responsibility</li> <li>• Appreciation</li> <li>• Co-existence</li> </ul>

## **Suggested Competences for Assessment**

The learner:

- i) names the components of the environment.
- ii) suggests ways by which animals benefit from plants and vice versa.
- iii) discusses the importance of agro-forestry.
- iv) writes brief notes on interrelatedness among the components of environment.
- v) explains the energy flow among living things.
- vi) starts and manages a woodlot project.

## **Hints for the Teacher**

- i) Encourage learners to explore the environment so as to enrich the content with suitable relevant examples.
- ii) Encourage learners to carry out school/home based projects.
- iii) Initiate and maintain tree and crop growing projects in which learners can participate. Allow learners to go through the planning process.
- iv) Through games, songs and visits, guide learners about interdependence in nature.
- v) Ask learners to name different components of the environment.
- vi) Provide guidelines to learners to help them appreciate the importance of growing trees, crops and rearing animals on the same piece of land.
- vii) Assist learners in developing skills of protecting and conserving the environment.

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**INTEGRATED SCIENCE SAMPLE SCHEME OF WORK**

WK	PERIOD	THEME	TOPIC	SUB-TOPIC	CONTENT	SUBJECT COMPETENCES	LANGUAGE COMPETENCE	INSTR. MAT./ STRATEGIES	LEARNING ACTIVITIES	INSTR/MATERIALS	LIFE SKILLS INDICATORS AND VALUES	REFERENCES	REMARKS
1	1	The World of Living Things	Plant Life	Flowering Plants	<p>Parts of a flowering plant</p> <ul style="list-style-type: none"> <li>•The two main systems (shoot and root)</li> <li>•Other parts (stem, leaves, flowers, roots)</li> </ul>	<p>The learner:</p> <ul style="list-style-type: none"> <li>• identifies the external parts of a flowering plant.</li> <li>• draws and labels parts of a flowering plant.</li> </ul>	<ul style="list-style-type: none"> <li>• Pronounces and spells words correctly</li> <li>• Writes/ writes in Braille the following words correctly: <ul style="list-style-type: none"> <li>- Shoot</li> <li>- System</li> <li>- Stem</li> <li>- Leaves</li> <li>- Flowers</li> <li>- Roots</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Excursion</li> <li>• Observation</li> <li>• Guided discovery</li> <li>• Question and answer</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting different flowering plants</li> <li>• Naming the parts of the plants</li> <li>• Coloured pencils</li> <li>• Drawing and labelling the different parts of a flowering plant</li> </ul> <p><b>SNE TIPS</b> Use the following to facilitate learners with special educational needs: • Signs/finger spells (deaf) • Brailles (blind)</p>	<ul style="list-style-type: none"> <li>• Real objects e.g. a flowering plant</li> <li>• Markers</li> <li>• Coloured pencils</li> <li>• Manila</li> <li>• A chart showing the parts of a flowering plant and the two main systems</li> <li>• Flash card</li> </ul>	<ul style="list-style-type: none"> <li>• Creative thinking</li> <li>- Innovative</li> <li>• Problem Solving</li> <li>- Evaluating facts</li> <li>• Decision making</li> <li>- Acceptance</li> <li>- Making choices</li> <li>• Effective communication</li> <li>- Fluency</li> <li>- Articulation</li> <li>• Values</li> <li>- Appreciation</li> <li>- Care</li> <li>- Responsibility, fluency</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated science Book 6</li> <li>• Fountain Science Pupils Bk 6</li> <li>• Teachers' Guide</li> <li>• Integrated Science Bk 6</li> </ul>	

REMARKS	REFERENCES	LIFE SKILLS INDICATORS AND VALUES	INSTR/MATERIALS	LEARNING ACTIVITIES	INSTR. MAT./ STRATEGIES	LANGUAGE COMPETENCE	SUBJECT COMPETENCES	CONTENT	SUB-TOPIC	TOPIC	THEME	PERIOD	WK
				<ul style="list-style-type: none"> <li>• Large print (low vision)</li> <li>• Tactile (blind and deaf/blind)</li> <li>• Total communication for deaf</li> <li>• Use real objects</li> <li>• Variety of colours</li> </ul>									

## SAMPLE SCIENCE LESSON PLAN

Date	Class	Learning Area	Time	Number of Learners		
				Boys	Girls	Total
	Level 2	Integrated Science	10:30am – 11:00am	35	40	75

**Theme:** The World of Living Things  
**Topic:** Plant Life  
**Sub-topic:** Flowering plants  
**Content:** The two systems (root, shoot)  
 - Parts of a flowering plant: stem, leaves, flowers, roots

**Subject Competences:** The learner:  
 - identifies the external parts of a flowering plant  
 - draws a flowering plant  
 - labels the parts of a flowering plant

**Language Competences:** The learner:  
 - pronounces the words correctly.  
 - spells/finger spells the words correctly.  
 - writes/writes in Braille the words correctly.

### Instructional Methods/Strategies

Excursion, observation, guided discovery, question and answer

### Instructional Materials

Real objects such as a flowering plant, a chart showing parts of a flowering plants, a chart showing the two main systems, markers, coloured pencils, manila, flash cards

### Life Skills Indicators and Values

- Creative thinking – innovativeness
- Problem solving – evaluating facts
- Decision making – acceptance, making choices
- Effective communication – fluency, articulation

**Values:** Care, responsibility, fluency, appreciation

### Special Educational Needs Tips

- Finger spells

- Braille
- Words written in bold

### Development Teaching Procedures

Steps	Phases	Duration	Teacher's activities	Learner's activities
I	Introductory phase	5 minutes	<ul style="list-style-type: none"> <li>• Begin lesson by asking learners to go out to observe plants and collect the plants with flowers</li> </ul>	<ul style="list-style-type: none"> <li>• Observing</li> <li>• Collecting flowering plants</li> </ul>
II	Experiencing phase	22 minutes	<ul style="list-style-type: none"> <li>• Ask learners to critically observe the parts of flowering plants showing the two systems: root and shoot (a chart can be used here)</li> <li>• Guide learners to name other parts: root, stem, leaves, flower (use a chart here)</li> <li>• Help learners to read, pronounce and spell the following new words correctly both in English and local language: root, shoot system, stem, leaves, flowers</li> </ul>	<ul style="list-style-type: none"> <li>• Observing the plant</li> <li>• Naming the parts of a flowering plant</li> <li>• Reading the words correctly</li> <li>• Spelling the words correctly</li> </ul>
III	Sharing of experience phase	3 minutes	<ul style="list-style-type: none"> <li>• Ask questions about flowering plants</li> </ul>	<ul style="list-style-type: none"> <li>• Names the parts of a flowering plant</li> <li>• Two main systems</li> <li>• Other parts - leaves, flowers, stem, roots</li> </ul>
IV	Evaluation phase	10 minutes	<ul style="list-style-type: none"> <li>• Give learners written work as here below:</li> </ul>	<ul style="list-style-type: none"> <li>• Writing answers</li> <li>• Drawing and labelling the</li> </ul>

Steps	Phases	Duration	Teacher's activities	Learner's activities
			i) Name the two main systems of a plant. ii) Name the parts of a flowering plant. iii) Draw and label the parts of a flower showing the two main parts. iv) Draw and label the parts of a flowering plant.	parts of the two main systems and the parts of a flowering plant

Lesson evaluation: .....

Strengths: .....

Weaknesses: .....

Way forward: .....







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