



Federal Ministry of Education

Accelerated Basic Education Curriculum Basic Science and Technology (Level 1: Stages 1 - 3)



NIGERIAN EDUCATIONAL RESEARCH AND DEVELOPMENT COUNCIL (NERDC)

ACCELERATED BASIC EDUCATION CURRICULUM: BASIC SCIENCE AND TECHNOLOGY

Nigerian Educational Research and Development Council (NERDC)

Headquarters: Lokoja-Kaduna Road, Sheda, PMB 91, Abuja, Nigeria

Phone: (09) 8822202, 8822204, Fax (09) 8821047

e-mail: info@nerdc.gov.ng

Website: www.nerdc.gov.ng

NERDC Zonal Offices:

South-East:	Old SUBEB Building, Waterworks Road, Abakaliki, Ebonyi State
South-South:	2nd Floor, Federal Secretariat Building, Calabar, Cross River State
North-East:	Yobe State Government Secretariat, Opposite Government Lodge, Bukar Ibrahim, Phase 1.
North West:	GP 109, State Road, Opposite Kano State High Court, Kano, Kano State
South-West:	Lagos Annex Office, 3, Jibowu Street, Yaba, Lagos
North-Central:	3rd Floor, Rm 313 - 315, Federal Secretariat Complex, Minna, Niger State.

NERDC State Offices:

Anambra State:	NERDC State Office, Post Primary School Service Commission, Awk, Anambra State.
Katsina State:	NERDC State Office, Education Resource Centre's/ERC/Building, Muhammad Dikko Road, Opposite Katsina College, Katsina/KCK/Katsina, Katsina State.

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Foreword

One of the targets set out by the Federal Government of Nigeria under the current dispensation is the eradication of the menace of out-of-school children that has bedeviled the country since the past three decades. This target area of concern formed one of the 10 pillars of the Ministerial Strategic Plan (2016 -2019) which have metamorphosed into the Ministerial Strategic Plan (2018 -2022). The effort asserted in this direction, is in line with the Constitution of the Federal Republic of Nigeria, which recognizes education as a fundamental right of every child, irrespective of ethnic background, social-economic status, religious affiliation and family background.

One of our turnaround strategies, as outlined in the Ministerial Strategic Plan, is to create opportunities for the education of all children and youths, who for one reason or the other, are out of school. These children, who are found in many parts of Nigeria, constitute about 5% of the world's population of Out-of-School children.

The turnaround strategies were based on identified gaps and challenges in the education sector. One obvious gap identified was the lack of well-thought educational programmes that specifically addresses the peculiarities of overage children who are not in school. The Accelerated Basic Education Programme (ABEP) is therefore a step taken towards filling the identified gap. Aside from addressing our domestic situation, the programme is in line with global best practices.

The specific goal of the Programme is to mop-up (or reduce to the barest minimum) and bring back to school the large number of overage and out-of-school children who are disadvantaged, marginalized and affected by

crises, disasters or other socio-economic factors.

I am therefore pleased to note that the Nigerian Educational Research and Development Council (NERDC) has taken this step towards the provision of the curriculum to drive the AEP programme. I congratulate NERDC and her partners for successfully completing the development of the Accelerated Basic Education Curriculum for the Implementation of the Accelerated Basic Education Programme in Nigeria. I wish to particularly thank Plan International and Save the Children International for supporting the development of the curriculum under the European Union funded project: The EU Response, Early Recovery and Resilience in Borno State: Education Component. I also acknowledge the contributions of all experts who worked hard in the development of the curriculum. The curriculum is flexible and provides learning options and pathways for learners.

It is therefore my pleasure to present the curricula to all Nigerians and our foreign partners for the education of out-of-school children under the accelerated education programme.

My utmost hope is that the effective use of the curricula will bring about our desired aim of providing quality basic education to all Nigerian children irrespective of the circumstances surrounding their existence.

ADAMU ADAMU

Honourable Minister of Education, FME, Abuja.

October 2019

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Preface

Nigeria, in the recent past, has been rated as one of the countries in the world with a huge population of out-of-school children and youths. The situation became worsened by the escalation of insurgency in the northeast leading to closure of many schools and the displacement of huge number persons including children and adolescents. Credible sources have it that many schools in the northeast states were closed from November 2014 to June 2015. By August 2017, an estimated 57% of schools were still closed in Borno.

Although many of the schools have been reopened, a high percentage of children are yet to return to school due to poverty and other socio-economic factors. There are also pockets of attack, psychosocial factors that affect human instability including where to start education again, having been out of school for many years (up to 10 years, in some instances).

Further, in the recent times, there have been widespread happenings, across the country, that have led to long term disruption of the educational pursuits of children and youths. These children and youths, in most instances, are either overage to continue schooling from where they stopped or are overage to start schooling from the foundation class (Primary 1). Incidentally, this group of children are found in many parts of the country.

Addressing this situation required the articulation of a special form of educational programme that will meet the peculiar circumstance of these

children in this category. Whereas pockets of efforts have been made towards addressing the challenge, Nigeria lacks a strategically designed educational programme and curriculum standards that suits the peculiarities of children in this category. Understandably, some non-governmental organizations have attempted to provide some interventions in this regard but these they had been done without a nationally established framework and curriculum standards.

Importantly, the Ministerial Strategy Plan (2018- 2022) had clearly identified containing the menace of out-of-school children as one of the 10 pillars of the programmes targeted at bringing about change the Nigerian education sector.

The above scenario informed the need for the development of a national accelerated education curriculum with the overarching objective of providing a catchup educational programme suitable for the educational needs of out-of-school children, and in the process mainstream them to formal school programme or provide them with alternative career path through enrolment into vocational training centres, after completing basic education. The intention to develop the curriculum arose also because of the need to provide a national curriculum standard that can be used in all states of Nigeria, where there are such peculiarities.

The Nigeria Accelerated Education Programme (NAEP) specifically targets out-of-school children between ages 10 and 18 who were in school but had their education interrupted and are overage to continue

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schooling from where they stopped and; those who have never been to school and are overage to start formal education from the foundation class (Primary 1).

The NAEP is structured into 3 Levels as exemplified below:

- Level 1 (Stage 1 -3) to cover the curriculum contents of Primary 1 – 3
- Level 2 (Stages 1 -3) to cover the curriculum contents of Primary 4 – 6
- Level 3 (Stages 1 – 3) to cover the curriculum contents of JS 1 -3.

Each level will run for one academic year of 3 terms, similar to the regular school programme but with a flexible timetable in learner-friendly centres. The structure is further explained in the table below:

Level	Target group
Level 1	<ul style="list-style-type: none">• Those who have never been to school aged 10 years and above.
Level 2	<ul style="list-style-type: none">• Those who have been to school up to Primary 2 or 3 but dropped out due to one reason or the other.
Level 3	<ul style="list-style-type: none">• Those who have been to school up to Primary 5 or 6 but dropped out due to one reason or the other.

Five subjects were selected for the implementation of the programme. These are: English Studies, Mathematics, Basic Science and Technology, Nigerian History and Values and one Nigerian Language (Hausa, Igbo and Yoruba, in the interim).

The development of the Accelerated Basic Education Curriculum involved a systematic procedure in which the 9-Year Basic Education Curriculum

(for the selected subjects) was condensed into a 3-Year accelerated basic education curriculum without compromising the quality.

NERDC's four-stage approach to curriculum development was adopted in the process. These are:

- i. Planning, which involves concepts and strategy formulation;
- ii. Writing (crafting) of the initial draft of the curriculum document;
- iii. Critique of the draft curriculum document; and
- iv. Editorial and finalization of the curriculum document.

Teacher's Guide, with detailed and well sequenced contents, instructional strategies and assessment procedures is also developed to strengthen teachers' capabilities to effectively teach the curriculum.

It is my delight to acknowledge the role played by Plan International and Save the Children International in the development of the curriculum under the European Union funded project: The EU Response, Early Recovery and Resilience in Borno State: Education Component.

My appreciation also goes to all our resource persons for their efforts, expertise and commitment to the success of the project. It is my deepest conviction that the use of this curriculum will be of immense benefit to the nation in the bid to addressing the problem of out-of-school children in Nigeria.

PROF. ISMAIL JUNAIDU
Executive Secretary, NERDC

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Introduction

The Accelerated Basic Education Programme (ABEP) is a catchup education programme meant to take care of the educational needs of overage children and youths between the age 10 and 18 who for certain reasons could not enroll into regular school or had their educational programmes interrupted. The Philosophy for ABEP, like the overall philosophy of Nigeria education; is to develop the individual into a sound and effective citizen and the provision of equal opportunities for the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life-skills; as well as the ethical, moral, security and civic values needed for laying a solid foundation for life-long learning. On a more specific note, the ABEP is designed to mop-up (or reduce to the barest minimum) and bring back to school the large number of out-of-school children spread across many parts of Nigeria. The programme targets two categories of these children. These are:

- Children and youths whose education programme were interrupted and are overage to continue schooling from where they stopped.
- Children and youths who have never been to school and are overage to start formal education from the foundation class (Primary 1).

The ABEP, which is unique in all its ramifications, is to be implemented in 3-Levels comprising:

- Level 1 equivalent of Primary 1 - 3

- Level 2 equivalent of Primary 4 - 6
- Level 3 equivalent of JS 1- 3

In each of these levels, learners are expected to acquire basic education competencies equivalent to their mates in the regular school programme.

Given the uniqueness of the programme, it became imperative to redesign and condense the 9-Basic Education Curriculum in such a manner as to meet the peculiarities and needs of the intended beneficiaries of ABEP without compromising quality. Thus, the Accelerated Basic Education Curriculum (ABEC) is developed to provide the recipients unique learning experiences that will enable them to acquire basic knowledge, skills and competencies sufficient for mainstreaming and coping with the curriculum contents in the formal school system.

The objectives of the Basic Science and Technology Curriculum for ABEP are to:

1. cultivate in the learners the scientific culture of enquiry and critical thinking;
2. engender in the learners the ability to effectively manipulate objects and materials in their environment;
3. enable the learners demonstrate satisfactory levels of familiarity with their environment;

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4. help the learners acquire the fundamental knowledge of science on cause and effect relationship among phenomenon;
5. develop the learners' science process skills for future undertaking in science and technology.

The thematic approach was adopted in the selection of the contents and learning experiences in the curriculum. These contents are organized under 4 themes at each Level as shown in the table below:

Level	Theme
1	Learning about the environment
	Health, sports and games
	You and energy
	Understanding basic technology
2	Learning about the environment
	Health, sports and games
	You and energy
	Understanding basic technology
3	Learning about the environment
	Health, sports and games
	You and energy
	Understanding basic technology

The curriculum has been further scoped and sequenced into lesson topics for ease of implementation at the ABEP learning centres. For the purpose of implementation, 3 hours a week has been dedicated to the teaching and learning of the Basic Science and Technology Curriculum contents. Thus, Basic Science and Technology shall be taught 3 times a week in ABEP learning centres.

Teacher's Guide has also been developed to further support the effective implementation of the curriculum by both teachers and policy makers. It is therefore recommended that the curriculum be implemented with due reference to the teacher's guide. Finally, it is envisaged that education managers, teachers, Development Partners and other stakeholders will provide the necessary infrastructure and support required for the actualization of the objectives of the curriculum.

Dr. Garba D. Gandu

Director, Curriculum Development Centre, NERDC

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	Understanding Basic Technology	<ul style="list-style-type: none"> • Technology and you • Forms of Technology • Materials used for Technology Devices. • Information Communication Technology (ICT) 	14-17
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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
1. Our Environment	Learners should be able to: 1. state the meaning of environment; 2. identify objects in and around their surroundings; 3. describe the colour of objects in the environment; 4. group objects based on: • colour, • shape, • roughness • smoothness, etc. 5. classify things into: solid, liquid and gas.	1. Meaning of environment 2. Identification of things in our environment by: • name • colour • shape • texture, etc. 3. Classification of things in our environment into Solids, Liquids and gases.	1. Use questions to guide learners to: • state the meaning of environment, • identify some objects and materials in the environment by name, • group objects by shape and texture. 2. Provide colour wheel and guide learners to: • observe and name primary colours, • describe the colour of various materials in the surroundings, • group things based on their colours. 3. Guides learners to classify things in the environment as solids, liquids and gas.	1. Respond to teachers' questions and follow instructions to: • define environment • identify some objects in the environment by their names, • group objects in the environment by shape, colour and texture (e.g. soft, hard, rough, smooth, etc.) 2. Use colour wheel to name the colours of materials.	• Various objects from the immediate environment—stones, wood, leaves, sticks, plastics • Hand fans, electric fans, • Colour Wheels • Balloons that have been inflated, water, any liquid, • Variegated leaves, coloured papers and objects, tin cans, etc.	Learners to: 1. define environment; 2. mention the names of some objects found in the environment, 3. describe the shapes and texture of objects in the surroundings; 4. state the colours of some named objects in the environment; 5. group things in the environment as solids, liquids and gas.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
2. Matter	Learners should be able to: 1. recognise every component of their environment as matter; 2. describe the properties that are common to all matter.	<ul style="list-style-type: none"> 1. The concept of matter. 2. Examples of matter. 3. Properties of matter. 	<ul style="list-style-type: none"> 1. Takes learners on a study walk around and outside the school to collect things in the environment like stones, dry sticks, fresh leaves, soil, etc. 2. Guides and supervises learners as they explore common properties of the things collected e.g. they all have weight; they all take up space. 3. Leads learners to: <ul style="list-style-type: none"> • identify and describe matter as anything that has weight and occupy space. • give examples of matter other than the items collected. 	<ul style="list-style-type: none"> 1. Walk around the school and collect samples of matter. 2. Explore the properties of the materials collected. 3. Participate in class discussion. 4. Give examples of matter. 	<ul style="list-style-type: none"> • School Compound • Sand. • Glass jars, • Bottle • Funnel, • Chewing gum • Water, • Air. 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. give examples of matter; 2. state the properties of matter. 		

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
3. Our Senses	Learners should be able to: 1. list the senses; 2. identify the various sense organs of the human body; 3. describe the uses of each of the sense organs; 4. discuss ways of taking proper care of our sense organs; 5. explain the importance of the senses.	<ul style="list-style-type: none"> 1. Types of Senses: <ul style="list-style-type: none"> • Sight • Hearing • Smell • Taste • Touch 2. The Sense Organs: <ul style="list-style-type: none"> • eyes • ear • nose • tongue • skin 3. Uses of the sense organs. 4. Care of the sense organs 5. Importance of Senses: <ul style="list-style-type: none"> • Information gathering • Discovering the environment • Safety, etc. 	<ul style="list-style-type: none"> 1. Brings to class models of the sense organs: eye, ear, nose, tongue, skin. 2. Guides Learners to name the various sense organs in their body and identify the senses. 3. Initiate and guide a discussion of: <ul style="list-style-type: none"> • uses of the sense organs, • ways of caring for the sense organs, • importance of the senses. 4. Assist learners to make drawings of the sense organs. 	<ul style="list-style-type: none"> 1. Use their own bodies to identify the senses and sense organs. 2. Participate in class discussion. 3. Draw and label the various sense organs. 	<ul style="list-style-type: none"> • Models of sense organs • Charts and drawings of sense organs • The sense organs of the learners and their teachers 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. name the various senses; 2. identify the organ associated with each of the senses; 3. explain the uses of each sense organ; 4. describe how to care for the sense organs; 5. state the importance of senses.

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LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNER		
4. Using our Senses	<p>Learners should be able to:</p> <ol style="list-style-type: none"> 1. identify the colour and shapes of objects by sense of sight; 2. identify the smell of things by sense of smell; 3. identify the type of sound made by objects and animals in the environment; 4. Identify and describe different types of taste- bitter, sweet, sour, salty, etc. 	<p>Getting information from the environment like:</p> <ol style="list-style-type: none"> 1. Colour and shapes of objects - through the sense of sight. 2. Smell of things - through the sense of smell. 3. Sounds in the environment - through the sense of hearing. 4. Taste of things in the environment - through the sense of Taste. 5. Texture of things - through the sense of touch. 	<ol style="list-style-type: none"> 1. Guides learners to use the sense of sight to identify colours, shapes, sizes of objects, in the environment. 2. Takes learners on a nature walk to detect the types of sound made by different objects, animals and things in the environment- music, motor, gong, horn, cow, goat, birds, 3. Uses simple activities and demonstrations to guide learners to use the sense of touch and: <ul style="list-style-type: none"> • describe the texture of things 	<ol style="list-style-type: none"> 1. Identify things and describe the colour and shapes of things in the environment. 2. Go on a nature walk to listen and describe sounds made by things in the environment. 3. Describe the texture and taste of objects and things. 4. Participate in class discussions. 	<ul style="list-style-type: none"> • Models of sense organs • Charts and drawings of sense organs • The sense organs of the learners and their teachers would be involved and used in the activities 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. describe how to take care of two of your sense organs 2. Explain why you should not use your tongue to taste everything you see in order to find out their tastes.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNER		
			<p>around them as soft, hard, smooth, rough, slippery, etc.</p> <ul style="list-style-type: none"> ● estimate the extent of hotness or coldness of things. <p>4. Initiates and guide a class discussion on:</p> <ul style="list-style-type: none"> ● ways of taking care of the sense organs ● importance of sense organs 			Learners to:

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
1. Health and Hygiene	Learners should be able to: 1. explain the concept of personal hygiene and personal cleanliness; 2. relate personal hygiene to cleanliness; 3. state benefits of cleanliness; 4. list the different parts of the body that need to be taken care of (hair, teeth, skin, nails, ear, etc.); 5. demonstrate how to take care of the different parts of body.	1. Personal Hygiene and cleanliness. 2. Relationship between personal hygiene and personal cleanliness 3. Benefits of cleanliness 4. Caring for different parts of our body (hair, skin, nails, ear, etc.)	1. Guides learners to define personal hygiene. 2. Explains the term personal cleanliness. 3. Leads Learners to state benefits of cleanliness. 4. Guides learners to list the different parts of the body that needs to be taken care of (hair, skin, nails, ear, etc.) 5. Guides learners to demonstrate how to take care of the different parts of the body.	1. Listen to teacher's explanation and take down notes as the teacher define personal hygiene; 2. Ask and answer questions as the teacher explains personal cleanliness; 3. Participate in discussing the benefits of cleanliness. 4. Demonstrate how to take care of the different parts of the body as the teacher supervises.	<ul style="list-style-type: none"> • Pictures showing different parts of the body • Charts showing how to take care of the different parts of the body. • Chewing sticks, tooth brush, tooth paste, clean water, comb, body and hair cream, soap, sponge, nail cutter, razor blade, cotton bud, etc. 	Learners to: 1. define personal hygiene; 2. explain the relationship between personal hygiene and personal cleanliness; 3. state four (4) benefits of cleanliness; 4. list four (4) different parts of the body that needs to be taken care of; 5. demonstrate how to take care of the different parts of the body.

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
2. Safety Education	Learners should be able to: 1. explain the meaning of safety 2. discuss how to stay safe at home and in school; 3. demonstrate how to stay safe on the road; 4. identify simple safety devices; 5. discuss the uses of safety devices.	1. Meaning of safety. 2. Ways of staying safe: <ul style="list-style-type: none">• home• school• on the road 3. Safety devices and their uses.	1. Guides the learners to explain the meaning of safety. 2. Guides learners to discuss ways of staying safe at home and school, as well as on the road. 3. Takes learners out of the class to practice ways of staying safe on the road. 4. Leads learners to identify simple safety devices.	1. Take down notes as the teacher explains the meaning of safety; 2. Participate in class discussion on ways of staying safe at home and school, as well as on the road. 3. Practice ways of staying safe on the road under the supervision of the teacher. 4. Ask and answer questions as the teacher describes simple safety devices.	1. Picture showing people crossing the road in a safe way. 2. Charts showing traffic lights indicating "Stop", "Ready-to-go" and "Go" signs. 3. Video clips showing ways of staying safe on the road. 4. Picture of simple safety devices.	Learners to: 1. explain the meaning of safety; 2. discuss 3 ways of staying safe at home, school and on the road; 3. demonstrate 2 ways of staying safe on the road; 4. list 3 safety devices; 5. state the uses of safety devices.
3. First Aid	Learners should be able to: 1. define First Aid	1. Meaning and purpose of First Aid	1. Explains the meaning and purpose of First	1. Listen as the teacher explains the meaning and	• First Aid Box: • Picture showing	Learners to: 1. state the meaning of

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
	2. explain the purpose of First Aid; 3. identify the content of a First Aid box and their uses 4. discuss the condition that requires First Aid; 5. describe the duties and qualities of a First Aider.	2. The First Aid Box: Its contents and their uses. 3. Conditions that require First Aid. 4. First Aiders: duties and qualities.	Aid. 2. Leads the learners to: <ul style="list-style-type: none"> • identify the contents in a First Aid Box, • discuss duties and qualities of a First Aider 3. Guides the learners to role play the duties of First Aiders.	purpose of First Aid; 2. Participate in class discussion. 3. Ask and answer questions as the teacher describe the content of a First Aid box and their uses. 4. Take down notes on the qualities of a First Aider. 5. Role-play the duties of a First Aider under the supervision of the teacher.	contents in a First Aid Box <ul style="list-style-type: none"> • Charts showing a First Aider • Plasters • Bandages • Scissors • Cotton wool • Hydrogen peroxide • Blade • Iodine • Paracetamol, etc. 	First Aid; 2. mention 4 objectives of First Aid 3. list the contents of a First Aid Box; 4. describe the uses of the various items in a First Aid Box; 5. discuss the duties of a First Aider.
4. Sports	Learners should be able to: 1. state the meaning of sports; 2. identify the two types of sports;	1. Meaning of sports 2. Types of sports: (contact and non-contact sports) 3. Values of sports.	1. Guides the learners to state the meaning of sports 2. Explain types of sports (contact	1. Take down notes as the teacher states the meaning of sports. 2. Ask and answer question as the	<ul style="list-style-type: none"> • Picture and video clips showing different types of sports in action. • Field of play. 	Learners to: 1. explain the meaning of sports; 2. name the 2 types of sports;

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES	TEACHER		
	3. differentiate between contact and non-contact sports; 4. discuss values of sports.		and non-contact sports) 3. Guides learners to discuss values of sports.	teacher explains the meaning of sports (contact and non-contact sports). 3. Participate in class discussion as the teacher discusses the values of sports.		3. explain the difference between contact and non-contact sports 4. state 3 values of sports.
5. Games	Learners should be able to: 1. state the meaning of games; 2. explain types of games; 3. discuss values of games; 4. play different types of games.	1. Meaning of games 2. Types of games 3. Values of games.	1. Guides the learners to state the meaning of games. 2. Explains types of games. 3. Leads learners to discuss values of games. 4. Takes learners out to the field to practice and play different types of games.	1. Take down notes as the teacher states the meaning games. 2. Ask and answer question as the teacher explains the meaning games. 3. Participate in class discussion. 4. Practice and play different types of games.	• Picture and video clips showing different types of sports in action. • Field of play.	Learners to: 1. explain the meaning of games; 2. mention 4 types of games; 3. describe 3 values of games; 4. play different types of games.

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THEME: YOU AND ENERGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
1. Concept of Energy	Learners should be able to: 1. deduce the meaning of energy; 2. identify things in their surroundings that use energy; 3. discuss the importance of energy.	1. Meaning and 2. Things that use energy 3. Importance of energy.	1. Takes learners outside the class and ask them to jump as high as they can until they can no longer continue. 2. Guides learners to explain why they can no longer continue to jump. 3. Asks learners to walk around the school community and identify the different kinds of work people do e.g. pounding with mortar and pestle, riding a bicycle, making ridges on their farms, weeding,	1. Jump as high as they can and as many times as possible. 2. Walk around the school community to observe and identify work that people do. 3. Describe different types of work they do. 4. Identify things that use energy to do work and the sources of energy. 5. Participate in discussing: <ul style="list-style-type: none">what people use for doing the work,importance of energy.	<ul style="list-style-type: none"> • School compound • Chart showing people doing different kinds of work, cooking food, pounding, hoeing farmland, etc. 	Learners to: 1. describe energy as ability to do work; 2. identify human activities involving the use of energy; 3. state the importance of energy.		

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			ACTIVITIES					
			TEACHER	LEARNERS				
			<p>running, jumping, cooking, fetching water, etc.</p> <p>4. Guides learners to:</p> <ul style="list-style-type: none"> • as using energy to jump, run, move, farm, lift objects, etc. • define energy as ability to do work • discuss the importance of energy. 					
2. Sources of Energy	Learners should be able to: <ol style="list-style-type: none"> 1. discuss the sources of energy. 	1. Sources of energy: <ul style="list-style-type: none"> • sun, • wind, • fuel, • water, • food, etc. 	1. Guides one learner to put new batteries in one radio set; and another learner to put dead batteries in the second radio. <p>2. Asks the two learners to put on their radio sets.</p>	1. Perform simple activities to illustrate the source of energy. <p>2. Participate in class discussion.</p>	<ul style="list-style-type: none"> • Torch light batteries • Radio Sets • Chart showing a moving car, cooking food, electrical heater, torch light, wind mill, etc. 	Learners to: <ol style="list-style-type: none"> 1. name things around them that use energy; 2. explain how the things get their energy. 		

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STAGE 1						
TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
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			3. Guides the class to: <ul style="list-style-type: none"> • discuss why the radio with dead batteries could not come on, • the source of energy for the radio that came on. 4. Uses charts and posters to help learners identify sources of energy e.g. sun, water, wind, bio-fuel, water, food, etc.			
3. Forms of Energy: Sound	Learners should be able to: <ol style="list-style-type: none"> 1. recognise different sounds; 2. name some instruments that produce sounds; 	1. Sources of sound e.g. musical instrument 2. Uses of sound energy.	1. Takes learners on a nature walk to listen and identify different sounds and identify the things that make such sounds e.g. ringing sounds made from school and bicycle bells; chirping	1. Identify different sounds in the surrounding and things that make the sounds. 2. Identify and name instruments that produce sound.	<ul style="list-style-type: none"> • A chart showing some musical instruments <ul style="list-style-type: none"> • Bamboo Stem • Paw-paw stalk • Knife 	Learners to: <ol style="list-style-type: none"> 1. identify sounds made from different sources; 2. list three instruments that <ul style="list-style-type: none"> •

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
	<p>3. state the uses of sound energy;</p> <p>4. make local instruments that produce sounds;</p> <p>5. make sounds with the instruments.</p>		<p>of birds, etc.</p> <p>2. Guides learners to:</p> <ul style="list-style-type: none"> • state the uses of sounds • use different parts of the body to produce sounds • make sounds from local materials (rubber bands, strings, empty cans, bottles, etc.) • produce musical instruments • make sounds using their instruments. 	<p>3. Make sounds with different parts of their bodies (e.g. feet, hands, mouth, etc.)</p> <p>4. Make sounds from rubber bands, strings, empty bottles, etc.</p> <p>5. Construct local musical instruments from available materials.</p> <p>6. Play music with the musical instrument that they made.</p>	<ul style="list-style-type: none"> • String • Water • Basin • Empty cans • Bottles • Rubber bands, etc. 	<p>produce sound;</p> <p>3. state the uses of sound;</p> <p>4. make local musical instruments and make melodies with them.</p>		

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LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
1. Technology and You	Learners should be able to: 1. explain the meaning of technology; 2. identify product of technology; 3. state importance of technology.	1. Meaning and importance of technology 2. Product of technology e.g. home appliance device and gadgets 3. Importance of technology.	1. Guides a class discussion of the meaning and importance of technology. 2. Displays the chart and samples of technology products and lead the class to identify and describe their uses.	1. Participate in the discussion of meaning and importance of technology 2. Observe the displayed charts and products of technology 3. Explain the uses of technology products.	<ul style="list-style-type: none"> Chart showing different products of technology e.g. home appliances, devices, gadgets Boiling ring Pot Hot plate Spoon Basket Bucket 	Learners to: 1. explain the meaning of technology; 2. mention 5 products of technology; 3. state 3 importance of technology.
2. Forms of Technology	Learners should be able to: 1. identify developed and underdeveloped technology; 2. state the characteristics of developed	1. Developed and Underdeveloped Technology: <ul style="list-style-type: none"> Examples of underdeveloped technology (local hoe, cutlasses, etc.) Examples of 	1. Display the charts and samples of technology products. 2. Guides the class to: <ul style="list-style-type: none"> discuss the concept of 	1. Participate in class discussion 2. Identify examples of developed and underdeveloped technology.	<ul style="list-style-type: none"> Chart showing different products of technology e.g. home appliances, devices, gadgets. Boiling ring 	Learners to: 1. give two (2) examples of developed and under-developed technology; 2. differentiate

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	and underdeveloped Technology	<p>developed technology (tractor, farm harvester, airplane, ship, radio, wrist watch, computer machine, phone etc.).</p> <p>Characteristics of developed and underdeveloped technology Developed Technology.</p>	<ul style="list-style-type: none"> developed and underdeveloped technology, identify developed and underdeveloped technology, <p>observe and describe the characteristics of developed and underdeveloped technology</p> <p>state the differences between developed and underdeveloped technology.</p>	<p>3. Observe and describe the characteristics of each form of technology.</p>	<ul style="list-style-type: none"> Pot Hot plate Spoon Basket Bucket 	<p>between developed and under developed technology</p>
3. Materials used for Technology Devices.	Learners should be able to: 1. identify the materials used	1. Identification of materials used for making	Presents different technology products to learners and guides them to:	1. Identify the materials used for making technology	<ul style="list-style-type: none"> Samples of wood, metal, plastics, rubber and clay. 	<p>Learners to:</p> <p>1. identify materials used for making</p>

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	<p>for making technology products;</p> <p>2. describe the technology devices made from wood, metal, clay, plastics, clay and rubber;</p> <p>3. state the characteristics of wood, metal, plastic, clay and rubber that makes them suitable for making the various technology devices.</p>	<p>technology products</p> <p>2. Types of technology produced from wood, metal, plastics, clay and rubber.</p> <p>3. Characteristics that make wood, metal, plastics, clay and rubber suitable for making technology devices.</p>	<ol style="list-style-type: none"> discuss the uses of the technology products, identify the materials used for making the different products, state the characteristics that make wood, metal, plastics, clay and rubber suitable for making technology products. 	<ol style="list-style-type: none"> devices and gadgets. Discuss the uses of technology devices. Take notes, ask and answer questions. 	<ul style="list-style-type: none"> Poster of technology devices made from wood, metal, clay, plastic and rubber. 	<p>technology devices;</p> <p>2. describe three technology devices produced from wood, metal, clay, plastic and rubber;</p> <p>3. list three characteristics that make wood, metal, clay, plastic and rubber suitable for making the devices.</p>

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 1		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
4. Information Communication Technology (ICT)	Learner should be able to: 1. explain the meaning of ICT; 2. identify common ICT devices; 3. name the parts on the ICT devices; 4. state the uses of the devices; 5. use common ICT devices to communicate among themselves.	1. Meaning of ICT 2. Common ICT devices e.g. GSM phone, organizer, pager, digital watches and clock. 3. Parts of the devices. 4. Uses of ICT devices.	1. Lists and shows learners some ICT devices such as GSM phones, digital watches and clocks, pagers, organisers, etc. 2. Guides the learner to: <ul style="list-style-type: none">• explain the meaning of ICT• identify the parts of the ICT device• state the uses of the ICT devices	1. Take note of the meaning of ICT 2. Identify the ICT devices by names and uses. 3. Note the parts of the ICT devices 4. Use the ICT devices.	<ul style="list-style-type: none"> • Sample of ICT devices, e.g. GSM, computer, etc. • Poster showing the devices 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. define ICT, 2. list three ICT devices, 3. identify the parts on ICT devices; 4. use of some ICT devices.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
1. Living Things	Learners should be able to: 1. identify self as living thing; 2. identify other living things in the environment by their names; 3. use self to show the characteristics of living things; 4. make a list of the characteristics of living things; 5. classify living things into plants and animals by differentiating them through their peculiar characteristics.	1. Identification of living things by their general characteristics. 2. Classification of living things into plants and animals. 3. Characteristics of plants and animals. 4. Importance of plants and animals.	1. Creates small working groups of learners for group activities. 2. Guides groups of learners to identify living things in the environment. 3. Leads groups of learners to collect some living things in the environment. 4. Leads groups of learners to classify living things into plants and animals. 5. Leads groups of learners to use self to discuss the characteristics of living things. 6. Leads groups of learners to state the importance of living things.	1. Participate in his/her group activities. 2. Identify as many living things as possible in the environment. 3. Make a collection of living things in the environment, name and describe them. 4. Make a list of the characteristics of living things starting from themselves as living things. 5. Differentiate plants from animals using their characteristics.	<ul style="list-style-type: none"> Samples of living things collected from the environment by learners. An inventory of the names of living things in the environment of the learners. Poster of difference between plants and animals List of the characteristics of living things. Sample of soil, water and inflated balloon of air 	Learners to: 1. make a list of the things they do that show that they are living things; 2. groups of living things as plants and animals; 3. list the differences between plants and animals.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
2. Non-Living Things	Learners should be able to: 1. give examples of non-living things in the environment 2. differentiate living things from non-living things;	1. Identification and general characteristics of non-living things 2. Examples of non-living things are Soil, water, air ; etc.	1. Leads learners to make a list of various non-living things in the surroundings of the learners: Home appliances, furniture, house, utensils in the home, stone, fire, wood, etc. 2. Leads learners to make a list of the differences between living and non-living and non-living things.	1. Make a list of the importance of non-living things. 2. Identify Air, Water and Soil as non-living things. 3. Make a list of non-living things in the environment 4. Participate in discussing the differences between living and non-living things. 5. Participate in field work to pick examples of non-living things.	<ul style="list-style-type: none"> Samples of non-living things collected from the environment by learners. Sample of soil, water and inflated balloon of air 	<p>Learners to:</p> <ol style="list-style-type: none"> explain why fire, wood is not a living thing; name ten things in the environment that are non-living things 		

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STAGE 2						
TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
3. Soil	Learners should be able to: 1. define soil; 2. identify different types of soil; 3. state the sources of soils; 4. describe the properties of soils; 5. enumerate the importance of soil.	1. Types of Soils. 2. Sources of Soils. 3. Properties of Soils. 4. Importance of the Soil.	1. Provides soil samples for class work/activities. 2. Leads learners to: <ul style="list-style-type: none">• discuss sources of the soil• identify and name different types of soils• describe the properties of soil samples.	1. Manipulate and observe soil samples. 2. Classify soil samples. 3. Identify the types of soils that are suitable for farming and building construction. 4. Participate in class discussion.	• Samples of Soils in containers. • Funnel • Filter paper • Water • Containers for collecting water.	Learners to: 1. define soil; 2. give the names of different types of soil; 3. describe the properties of different types of soil; 4. state the sources of soils; 5. explain the importance of the soil.

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TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
4. Measurements	<p>Learners should be able to:</p> <ol style="list-style-type: none"> 1. identify the standard instruments for measuring length, volume, mass, weight, time; 2. use appropriate instruments to measure: length, time, volume of liquid, mass of objects. 	<ol style="list-style-type: none"> 1. Measurement of length, mass, volume and time. 2. Standard Units of measurements for: <ul style="list-style-type: none"> • length • mass • volume • time. 	<ol style="list-style-type: none"> 1. Provides learners with measuring instruments like ruler, tape, measuring cylinder, weighing balance, spring balance and clock/watch. 2. Demonstrates correct use of standard measuring instruments. 3. Guides learners to: <ul style="list-style-type: none"> • measure length, mass, volume, and time, using the standard instruments. • record the measurements taken in standard units. 	<ol style="list-style-type: none"> 1. Watch teacher's demonstration. 2. Name the standard instruments for measurement 3. Use standard instruments to measure the length, mass, volume, and time. 4. Record measurements in standard units. 	<ul style="list-style-type: none"> • Standard measuring instruments e.g. tailor's tape, Ruler, stop watch/clock, weighing balance, spring balance, measuring cylinder, graduated beaker for volume estimation, etc. • A chart on the standard Units for measuring length, mass, volume, and time. 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. name the instruments for measuring length, mass, volume and time; 2. state the standard units for measuring length, mass, volume and time; 3. use standard instruments to accurately measure length, mass, volume and time.

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
1. Personal Safety	Learners should be able to: 1. explain the meaning of personal safety; 2. discuss the importance of personal safety; 3. identify personal safety and protection measures; 4. state some precautionary safety and protection measures for conflicts, emergencies and crisis situations.	1. Concepts of personal safety. 2. Importance of personal safety. 3. Personal safety and protection measures. 4. Precautionary Safety and Protection in emergencies, conflicts and crisis situations.	1. Explains meaning of personal safety. 2. Guides learners to discuss the importance of personal safety. 3. Gives examples of conflicts and crisis situations. 4. Guides learners to identify personal safety and protection measures.	1. Ask and explains the meaning of personal safety. 2. Participate in class discussion as the teacher discusses the importance of personal safety. 3. Take down notes as the teacher lists examples of conflict and crisis situations. 4. Participate in class discussion as the teacher guides learners to identify personal safety and protection measures.	<ul style="list-style-type: none"> • Picture showing different conflicts and crisis situations such as: kidnapping, bomb blast victims, war, insurgency, etc. • Charts • Video clips. 	Learners to: 1. explain the meaning of personal safety; 2. identify four personal safety and protection measures; 3. state three importance of personal safety and protection; 4. list four precautionary safety and protection measures for conflicts and crisis situations.		

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LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	ACTIVITIES LEARNERS		
2. Diseases	Learners should be able to: 1. explain the meaning of communicable diseases; 2. list examples of communicable diseases; 3. mention the causes of communicable diseases; 4. explain the general signs and symptoms of communicable diseases; 5. mention ways to prevent communicable diseases.	1. Communicable Diseases: <ul style="list-style-type: none">• Meaning of Communicable diseases.• Causes, signs and symptoms• Diseases prevention.	Guides learners to: <ol style="list-style-type: none">1. discuss the meaning and nature of communicable diseases, list examples of communicable diseases.2. state the causes and mode of transmission of communicable diseases.3. identify the general signs and symptoms of communicable diseases.4. suggest ways communicable diseases can be prevented.	1. Participate in class discussion on the meaning and nature of communicable diseases. 2. List examples of communicable diseases. 3. Ask and answer question on causes and mode of transmission of communicable diseases. 4. Explain the general signs and symptoms of communicable diseases. 5. Copy notes on ways communicable diseases can be prevented.	• Pictures • Posters • IEC materials • Photographs • Textbooks • Flip charts • Video clips.	Learners to: 1. explain the meaning of communicable diseases. 2. list 3 examples of communicable diseases. 3. mention 3 causes of communicable diseases. 4. write 4 signs and symptoms of communicable diseases. 5. mention 3 ways to prevent communicable diseases.

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
	<p>Learners should be able to:</p> <ol style="list-style-type: none"> 1. explain the meaning of non-communicable diseases; 2. describe the nature of non-communicable diseases; 3. list examples of non-communicable diseases 4. discuss the signs and symptoms of non-communicable diseases. 5. mention ways to prevent non-communicable diseases 	<p>2. Non-communicable diseases:</p> <ul style="list-style-type: none"> • Meaning of non-communicable diseases. • Nature of non-communicable diseases. • Examples of non-communicable diseases. • Signs and symptoms of non-communicable diseases. • Prevention of non-communicable diseases. 	<p>Guides learners to:</p> <ol style="list-style-type: none"> 1. explains the meaning of non-communicable diseases. 2. describe the nature of non-communicable diseases 3. list examples of non-communicable diseases. 4. discuss the signs and symptoms of non-communicable diseases. 5. suggest ways to prevent non-communicable diseases. 	<ol style="list-style-type: none"> 1. Participate in class discussion as the teacher explains the meaning of non-communicable diseases. 2. Ask and answer questions as the teacher describes the nature of non-communicable diseases. 3. Copy notes as the teacher lists examples of non-communicable diseases. 4. Take turns to: <ul style="list-style-type: none"> • mention the signs and symptoms of non-communicable diseases under the guidance of the teacher, • suggest ways of preventing non-communicable diseases. 	<ul style="list-style-type: none"> • Pictures • Posters • IEC materials • Photographs • Textbooks • Flip charts • Video clips 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. explain the meaning of non-communicable diseases. 2. discuss the nature of non-communicable diseases. 3. list 4 examples of non-communicable diseases. 4. mention 2 signs and symptoms of non-communicable diseases. 5. explain 3 ways to prevent non-communicable diseases.

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			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
2. Pollution	Learners should be able to: 1. explain the meaning of pollution; 2. list types of pollution.	1. Meaning of pollution: 2. Types of pollution <ul style="list-style-type: none">• Air pollution• Land pollution• Water pollution• Noise pollution	1. Guides learners to explain the meaning of pollution. 2. Leads learners to list types of pollution.	1. Ask and answer questions on the meaning of pollution. 2. Participate in classroom discussion on types of pollution.	• Pictures • Video clips of types of pollution	Learners to: 1. explain the meaning of pollution. 2. list four types of pollutions.
4. Air Pollution	Learners should be able to: 1. explain the meaning of air pollution; 2. identify air pollutants and their sources; 3. discuss consequences of air pollution; 4. explain ways to prevent air pollution.	1. Meaning of air Pollution. 2. Air pollutants and their sources 3. Consequences of air pollution 4. Prevention of air pollution.	1. Explains meaning of air pollution. 2. Guides learners to list sources of air pollution. 3. Discusses the consequences of air pollution. 4. Guides learners to explain ways of preventing air pollution.	1. Listen to the teacher's explanation of the meaning of air pollution. 2. Participate in discussing the sources of air pollution. 3. Explain ways of preventing air pollution. 4. Take down notes.	• Picture of sources of air pollution. • Charts. • Take learners outside the classroom to observe sources of air pollution such as toilets, kitchen and dump sites where refuse are burnt.	Learners to: 1. define air pollution; 2. mention two sources of air pollution; 3. discuss two consequences of air pollution; 4. explain three ways to prevent air pollution.

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LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
1. Forms of Energy: Light energy	Learners should be able to: 1. mention the sources of light; 2. distinguish between light and fire; 3. discuss the uses of light energy.	1. Sources of light energy 2. Uses of light energy.	1. Guides learners to name the sources of light e.g. the sun, stars, fire, electricity. 2. Guides learners to realize that light is not fire but fire produces light. 3. Initiates and guides class discussion on the uses of light energy.	1. Participate in class discussions. 2. identify different sources of light energy. 3. Tabulate the observations.	<ul style="list-style-type: none"> Plane mirrors; Lenses convex and concave lenses Empty tins with shiny surfaces Pencil 	Learners to: 1. list five sources of light energy; 2. state the differences between light and fire; 3. mention three uses of light.
2. Characteristics of Light Energy: Reflection.	Learners should be able to: 1. deduce the meaning of reflection as the bouncing of light rays; 2. identify some objects that reflect light;	1. Meaning of reflection 2. Importance of reflection	Guides learners, using simple experiments to: 1. describe reflection as the bouncing of light rays 2. identify objects around them that reflect light	Perform the following activities with mirrors and describe the observations: 1. Bouncing light Experiment: point a torch light at a	<ul style="list-style-type: none"> Plane mirrors; Shiny spoons Empty tins with shiny surfaces Pencil Torch light 	Learners to: 1. explain the meaning of reflection; 2. list three things that reflect light; 3. use mirrors and shiny

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			TEACHER	LEARNERS		
	3. use mirrors to form images		3. determine the path of light make images in 4. mirrors state the 5. importance of reflection.	mirror or shiny surface in a dark corner/room. 2. Straight light beam: poke a hole in the middle of foil paper placed over a torch light and turn the light on in a dark room. 3. Look at their faces in the mirror. 4. Hold a pencil in front of a mirror 5. Tabulate the observations.	<ul style="list-style-type: none"> • Foil paper • Basic Science and technology note books 	surfaces to reflect light; 4. form images with mirrors

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			ACTIVITIES	TEACHER		
3. Colours of Light	Learners should be able to: 1. separate white light into the component colours; 2. identify and name the colours of light; (rainbow).	1. The colours of light (ROYGBIV)	1. Guides the learners to separate white light into its components colours using a glass prism. 2. Uses the colour chart to help learners identify various colours e.g. primary and secondary.	1. Separate white light and identify the colours of light, using glass prism. 2. Use memory and (ROYGBIV) to list the colours of light (Red, Orange, Yellow, Green, Blue, Indigo, Violet).	<ul style="list-style-type: none"> • Glass prism, • White cloth or wall to serve as screen. • Coloured plates or discs • Flowers • Leaves 	Learners to: 1. separate white light into the component colours; 2. identify and name the colours of light.
4. Classification of Colours	Learners should be able to: 1. collect and list materials that produce colours. 2. identify the colours produced by these materials 3. sort the colours into primary and	1. Materials that produce colours 2. Primary colours (Red, Blue, Green) 2. Secondary colours e.g. Purple, Magenta. 3. Producing known	1. Takes learners on a nature walk to collect materials that produce colours 2. Guides learners to extract the colours from the materials collected. 3. Uses the colour chart to help learners identify	1. Collect materials that produce colours, e.g. kolanuts, acalypha leaves, bitter leaf, water leaf, clay soil etc. 2. extract colours from materials in their surroundings. 3. Sort coloured objects into primary and secondary colours 4. Make and spin their coloured wheels to obtain	<ul style="list-style-type: none"> • Colour wheel • Coloured objects • Flowers • Leaves • Clay soil • Water • Mortar and pestle • Cardboard papers • Crayons • Water colour 	Learners to: 1. collect and list at least three materials that produce colours; 2. describe the colour produced by the different materials; 5. sort primary and secondary

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THEME: YOU AND ENERGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE												
			ACTIVITIES															
			TEACHER	LEARNERS														
	secondary colours; 4. identify characteristics of colour shades; 5. mix primary and secondary colours to produce new colour shades; 6. identify the shades of colours produced.	colours from primary colours	various colours e.g. primary and secondary. 4. Provides learners with coloured objects and guide them to sort the colour into primary and secondary colours. 5. Guide learners to make and spin colour wheels. 6. Provides learners with different colours and guide them to mix and identify the new colours. 7. Guide learners to tabulate their results.	different shades of colours. 5. Mix different colours to obtain various colour shades. 6. Tabulate their results as follows: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Colours Mixed</th> <th>New Colour</th> <th>Colour Group</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table>	Colours Mixed	New Colour	Colour Group										<ul style="list-style-type: none"> • Colour filter • Colour Chart 	colours from a collection of coloured plates; 6. identify characteristics of colour shades; 7. mix colours and identify the shades of colours produced.
Colours Mixed	New Colour	Colour Group																

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THEME: UNDERSTANDING BASIC TECHNOLOGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES	TEACHER		
TEACHER	LEARNERS					
1. Computer Hardware	Learner should be able to: 1. define computer hardware; 2. list examples of computer hardware; 3. describe the features of computer hardware; 4. state the uses of computer hardware.	1. Meaning and examples of computer hardware 2. Features of computer hardware such as monitor, keyboard, printer, CD/DVD, flash drive etc. 3. Uses of the various components.	1. Explains the meaning of computer hardware. 2. Lists examples of computer hardware. 3. Describes the features of each hardware. 4. Guides a class discussion of the uses of each computer hardware.	1. Identify computer hardware with examples. 2. Observe and identify the features of computer hardware. 3. Discuss the uses of computer hardware.	<ul style="list-style-type: none"> • Computer System • A Chart of the Hardware components of a Computer system 	Learners to: 1. explain the meaning of computer hardware; 2. describe the features of each hardware 3. state the uses of the hardware.

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THEME: UNDERSTANDING BASIC TECHNOLOGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 2		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
2. Computer Storage Devices	Learners should be able to: 1. define computer storage system; 2. list computer storage devices; 3. state the functions of computer storage devices; 4. care for computer storage devices.	1. Meaning and types of storage devices 2. Functions and uses of the storage devices 3. Caring for the storage devices.	1. Brings chart, pictures and samples of computer storage devices. 2. Guides learners to: <ul style="list-style-type: none">• explore and describe the storage devices;• explain the functions of each device and relate it with how learners store different things in different places in their homes,• discuss ways of caring for the storage devices.	1. Participate in the discussion and note the meaning of computer storage devices 2. Touch and feel the devices in order to recognize them later in live. 3. Take note of the functions of each device. 4. Take note of how to care for the devices.	• Charts and pictures of computer storage devices • Samples of Computer storage devices	Learners to: 1. define a computer storage device; 2. identify computer storage devices; 3. state the functions of each storage device; 4. discuss ways of caring for each device.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
1. Water	Learners should be able to: 1. define water; 2. state various sources of water; 3. describe physical properties of water; 4. differentiate water from other liquids; 5. discuss water as a universal solvent.	1. Sources of water 2. Differences between water and other liquids 3. Physical properties of water 4. Water as a universal solvent.	1. Leads the learners to define water as a colourless, odourless and tasteless liquid which is capable of dissolving everything to some extent. 2. Uses questions to get the learners enumerate the sources of water in the environment. 3. Leads learners to differentiate water from other liquids such as wine, milk, vegetable oil, kerosene, petrol, engine oil etc.	1. Participate in class discussion within their small groups. 2. Bring to class any equipment requested for by the teacher 3. Respond to questions on sources of water from the teacher. 4. List the sources of water in their community.	• Water samples • Samples of other liquids e.g. kerosene, vegetable oil, milk, etc.	Learners to: 1. describe water; 2. enumerate the sources of water in learners' community; 3. describe the physical properties of water; 4. differentiate water from other liquids through smell, colour, taste, and volatility; 5. state why water is said to be a universal solvent.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
2. Water Quality	Learners should be able to: 1. describe the quality of good/safe water, and unsafe/bad water; 2. describe substances that contaminate water; 3. enumerate the dangers of drinking bad or unsafe water; 4. purify water to make it safe for drinking; 5. discuss uses of water.	1. Qualities of good and bad water. 2. Substances that contaminate water. 3. Dangers of drinking bad water. 4. Purification of water. 5. Uses of water.	1. Provides equipment for purifying water- filtering cloth, buckets/basin, boiling equipment and source of fire, alum etc. 2. Provides samples of good water and contaminated water for learners to compare by colour, and smell 3. Guides the learners in groups to discuss changes which water undergoes from Liquid to solid (freezing) or from liquid to gas (evaporation). 4. Guides groups of learners to discuss materials that	1. State qualities of good/safe water 2. State qualities of bad water 3. Discuss ways of purifying bad water to make it fit for drinking. 4. State the differences between water and other liquids 5. Discuss change of state in water: liquid to water vapour or liquid to solid ice. 6. Identify the substances that contaminate water	• Water of various qualities. • Equipment for purifying water: filtering cloth, alum, boiling utensils etc.	Learners to: 1. differentiate between safe/good quality water and bad/poor quality; 2. identify substances that contaminate water; 3. explain the dangers of drinking bad water; 4. purify and make water fit for drinking; 5. state various uses of water in the home, school, industry and farming.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
			<p>5. contaminate water.</p> <p>6. Guides the learners discuss dangers of drinking bad water.</p> <p>6. Guides learners to discuss the uses of water in the home, industry, farm, hospital, schools, etc.</p>			
3. Air	<p>Learners should be able to:</p> <ol style="list-style-type: none"> demonstrate the properties of air: <ul style="list-style-type: none"> • weight, • pressure; • volume, etc. discuss the importance of air. 	<ol style="list-style-type: none"> Existence of air. Properties of air: <ul style="list-style-type: none"> • Air occupies space • Air has weight • Air exerts pressure. Importance of air. 	<ol style="list-style-type: none"> Provides the resources needed for illustrating: <ul style="list-style-type: none"> • the presence of air, • air pressure, etc. Puts the learners into small working group to: <ul style="list-style-type: none"> • collaborate in construction resources like 	<ol style="list-style-type: none"> Participate in group activities. Bring to school resources requested by the teacher. Construct objects like hand fans, wind vane, kites, etc. Inflate and weigh balloons and footballs. 	<ul style="list-style-type: none"> • Old newspapers, • Hand fans, • Inflated football or balloon, • Feather/ cotton wool, • Equipment to demonstrate suction of and its application. 	<p>Learners to:</p> <ol style="list-style-type: none"> carry out demonstrations to show that air: <ul style="list-style-type: none"> • exists; • has weight • has volume • exerts pressure; construct and use fans to show the existence of air explain the importance of air.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

STAGE 3						
TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
			<ul style="list-style-type: none"> the kite, wind vanes, and hand fans, • demonstrate the properties of air. <p>3. Leads learners to discuss the importance of air.</p>	<p>5. Carryout simple experiments to illustrate the air pressure.</p> <p>6. Uses simple activities to illustrate the presence of air</p>		
4. Air in Motion.	<p>Learners should be able to:</p> <ol style="list-style-type: none"> 1. state the meaning of wind; 2. differentiate wind from breeze; 3. demonstrate that air can do work; 4. explain the harmful effects 	<ol style="list-style-type: none"> 1. Wind: Meaning and importance of wind e.g. do work, generate electricity, etc. 2. Harmful effects of air in motion e.g. carry's harmful substances, 	<ol style="list-style-type: none"> 1. Uses learners' experiences on windy days to initiate and guide the class to discuss: <ul style="list-style-type: none"> • the meaning of wind, • importance of wind. 2. Guides learners to make and fly paper or polythene kites. 3. Presents inflated balloons to lift objects. 4. Explains to learners that wind propels the balloons, 	<ol style="list-style-type: none"> 1. Use paper or hand fan to show air in motion. 2. Observe and describe the effect of wind on: <ul style="list-style-type: none"> • their bodies • light objects like feathers, pieces of paper. 	<ul style="list-style-type: none"> • Pieces of paper • Feathers • Picture/chart showing the effect of wind. • Balloons • Card board paper • Pair of scissors • Gum 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. describe wind as moving air; 2. describe their feelings when wind blows against their bodies; 3. demonstrate how air does work e.g. move or

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

STAGE 3						
TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	of air in motion.	destroys buildings, etc.	<p>kites and windmill.</p> <p>5. Presents the pictures of someone</p> <ul style="list-style-type: none"> • sneezing, • coughing (without covering the mouth with his hand) • smoking <p>6. Initiates and guide class discussion on the role of air in transferring harmful substances into the body.</p>	<p>3. Make and fly paper kites.</p> <p>4. Use inflated balloons to lift things.</p> <p>5. Discuss the role of air in smoking coughing and sneezing.</p>	<ul style="list-style-type: none"> • Sticks • Thread • Pictured chart of air 	<p>propel objects;</p> <p>4. list two harmful substances that can be taken into the body through the air.</p>
5. Air Pressure	Learners should be able to: 1. demonstrate that air presses on every object; 2. explain why things move in air; 3. explain why boats fixed with sails move faster on windy days;	<p>1. Existence of Air Pressure</p> <p>2. Things that fly in air.</p> <p>3. Why things move in air.</p> <p>4. Applications of air pressure in:</p> <ul style="list-style-type: none"> • navigation • generating electricity • floatation 	<p>1. Demonstrates the collapsible can experiment.</p> <p>2. Uses an inverted tumbler filled with water and sealed with nylon or leaf to illustrate and explain air pressure.</p> <p>3. Guides and moderates class discussion on:</p> <ul style="list-style-type: none"> • how air pressure enables things 	<p>1. Pump a deflated football; deflate it and describe their experience</p> <p>2. Demonstrate air pressure using the inverted tumbler with water; and explain what</p>	<ul style="list-style-type: none"> • Water tumbler • Cardboard • Cell phone • Balloons • Bicycle tyre • Pumps • Football • Paper • String • Kites • Water basin 	<p>Learners to:</p> <p>1. use simple activities to demonstrate air pressure;</p> <p>2. explain why things move in air.</p> <p>3. make things fly in air</p> <p>4. observe their kites,</p>

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

STAGE 3						
TOPIC	PERFORMANCE OBJECTIVES	CONTENTS	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	<p>4. state some of the applications of air pressure in:</p> <ul style="list-style-type: none"> • navigation; • generation of electricity; • floatation; • suction. 	<ul style="list-style-type: none"> • suction 	<p>to move in air (airplanes, air balloons, birds etc.)</p> <ul style="list-style-type: none"> • effects of air pressure on boats sailing on the sea. • special features of things that move in air (shape, light weight, possession of wings: hollow bones) etc. • the applications of air pressure in: generating electricity; (wind mill) navigation; and suction 	<p>keeps the water from pouring.</p> <p>3. Make and operate:</p> <ul style="list-style-type: none"> • air propelled balloon; • air propelled paper boat and discuss what makes them move. <p>4. Examine things that float in air and identify their special characteristics (lightness, shape)</p> <p>5. Use inflated balloons to lift objects.</p>	<ul style="list-style-type: none"> • Sticks • Gum • Picture or model of a Wind Mill 	<p>parachutes etc.;</p> <p>5. mention two instances of the application of air pressure to do work e.g. lifting load; generating electricity etc.</p>

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THEME: HEALTH, SPORTS AND GAMES

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
1. Land Pollution.	Learners should be able to: 1. explain the meaning of land pollution; 2. discuss the sources of land pollutants; 3. discuss the health consequences of land pollution; 4. explain ways to prevent land pollution.	1. Meaning 2. Sources of land pollutants. 3. Health consequences of land pollutants. 4. Prevention of land pollution.	1. Guides learners to explain meaning of land pollution. 2. Take learners outside the classroom to observe and identify land pollutants e.g. open defecation, food wraps, polythene bags, corn combs, ground nut peels, etc. 3. Initiates a class discussion of the health consequences of land pollution. 4. Guides learners to explain ways to prevent land pollution.	1. Listen to the teacher's explanation. 2. Participate in discussing the sources and health consequences of land pollution. 3. Suggest ways of preventing land pollution. 4. Take down notes.	• Picture of sources of land pollution. • Charts.	Learners to: 1. define land pollution; 2. identify two sources of land pollution; 3. explain the health consequences of land pollution; 4. suggest 3 ways of preventing land pollution.		

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES TEACHER	ACTIVITIES LEARNERS		
2. Water Pollution.	Learners should be able to: 1. explain the meaning of water pollution; 2. identify water pollutants and their sources; 3. discuss consequences of water pollution; 4. enumerate preventive measures of water pollution.	1. Meaning if water pollution 2. Sources of water pollutants. 3. Consequences of water pollution. 4. Prevention of water pollution.	1. Explains meaning of water pollutants. 2. Guides learners to list sources of water pollutants. 3. Leads discussion on consequences of water pollution. 4. Guides learners to suggest ways of preventing water pollution.	1. Listen to the teacher's explanation of the meaning of water pollution. 2. Participate in discussing the sources and consequences of water pollution. 3. Copy chalkboard summary. 4. suggest ways of preventing water pollution.	• Picture of sources of water pollution. • Charts. • Nearby water body/river.	Learners to: 1. explain the meaning of water pollution; 2. list four water pollutants; 3. discuss 3 consequences of water pollution; 4. enumerate two ways of preventing water pollution.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
3. Noise Pollution	Learners should be able to: 1. explain the meaning and forms of noise pollution; 2. Mention forms of noise pollution; 3. discuss consequences of noise pollution; 4. identify preventive measures of noise pollution.	1. Meaning of noise pollution. 2. Forms of noise pollution. 3. Consequences of noise pollution. 4. Prevention of noise pollution.	1. Explains meaning of noise pollution. 2. Leads learners to mention forms of noise pollution 3. Guides learners to: • discuss the consequences of noise pollution. • identify preventive measures of noise pollution.	1. Listen to the teacher's explanation of the meaning of noise pollution. 2. Participate in discussing the forms of noise pollution. 3. Copy chalkboard summary. 4. suggest ways of preventing noise pollution.	Pictures of: • Grinding machines sites • Electricity generating plants • Recorded Music DVD shops	Learners to: 1. explain meaning of noise pollution; 2. mention three forms of noise pollution; 3. state three consequences of noise pollution; 4. identify four preventive measures of noise pollution.

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THEME: LEARNING ABOUT THE ENVIRONMENT

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			ACTIVITIES	TEACHER	LEARNERS	
4. Environmental Quality	Learners should be able to: 1. describe a healthy environment; 2. explain ways of maintaining a healthy environment; 3. enumerate materials required for maintaining a healthy environment. 4. list advantages of maintaining a healthy environment. 5. discuss consequences of degrading our environment.	1. Meaning of healthy environment 2. Ways of maintaining a healthy environment 3. Materials for maintaining a healthy environment 4. Advantages of maintaining a healthy environment 5. Consequences of degrading our environment.	1. Takes learners out of classroom to observe healthy environment. 2. Guides the learners to describe a healthy environment. 3. Leads learners to explain ways of maintaining a healthy environment. 4. Guides learners to discuss the advantages of maintaining our environment. 5. Leads learners to discuss the consequences of degrading our environment.	1. Participate in classroom discussion on healthy environment. 2. Ask and answer questions on ways of maintaining healthy environment. 3. Listen and take down notes on materials required for maintaining a healthy environment. 4. Participate in class discussion on the disadvantages of degrading our environment.	• Picture • Posters • Brooms • Shovels • Wheel barrows • Mops • Soaps and detergents • Brush for sweeping • Video showing healthy environment	Learners to: 1. describe a healthy environment; 2. explain 3 ways of maintaining a healthy environment; 3. list 4 materials required to maintain a healthy environment; 4. list and discuss 2 ways of degrading our environment. 5. explain 2 advantages of maintaining our environment.

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THEME: YOU AND ENERGY

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	STAGE 3		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE		
			ACTIVITIES					
			TEACHER	LEARNERS				
1. Heat Energy	Learners should be able to: 1. mention the sources of heat; 2. explain the effects of heat on objects and things; 3. discuss the importance of heat energy.	1. Sources of heat energy (sun, light, fire, etc.) 2. Effects of heat e.g. rise in temperature, expansion, etc. 3. Importance of heat energy.	1. Guides learners to name the sources of heat e.g. the sun, fire, friction, electricity, food, etc. 2. Initiates and guides class discussion of the: <ul style="list-style-type: none">• effects of heat on things• uses and importance of heat energy.	1. Participate in class discussions. 2. identify different sources of heat energy.	• Candles • Matches • Stove • Chart on sources of heat	Learners to: 1. list five sources of heat energy; 2. describe the effects of heat on things; 3. state three uses of heat.		
2. Temperature	Learners should be able to: 1. explain the meaning of temperature; 2. distinguish between heat	1. Meaning of temperature 2. The Thermometer: <ul style="list-style-type: none">• Units and symbols of temperature• Temperature scale i.e.	1. Guides learners to: <ul style="list-style-type: none">• explain the meaning of temperature• discuss the differences between heat	1. Participate in class discussions. 2. Examine and identify thermometers. 3. Practice,	• Thermometers • A chart showing the units and symbols of temperature correctly.	Learners to: 1. state the differences between heat and temperature; 2. name any three types of		

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THEME: YOU AND ENERGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	<p>and temperature;</p> <p>3. identify and name different types of thermometers;</p> <p>4. identify and write the units and symbol of temperature scale;</p> <p>5. accurately measure temperature rise in objects.</p>	degree Celsius ($^{\circ}\text{C}$) and degree Farenheight ($^{\circ}\text{F}$).	<p>and temperature.</p> <p>2. Uses charts to guide the learners to:</p> <ul style="list-style-type: none"> • identify different types of thermometers; • identify and name the units and symbols for temperature. <p>3. Demonstrate and guide learners to use the thermometers and accurately measure temperature of objects.</p>	<p>accurately measure and record the temperature of things e.g. hot water, their bodies, etc.</p>	<ul style="list-style-type: none"> • Flask of hot water. • Some ice water. 	<p>thermometers;</p> <p>3. write the units and symbols of temperature;</p> <p>4. use thermometers to measure temperature accurately</p>
3. Heat Flow	Learners should be able to: 1. explain the concept of heat flow;	1. Concept and direction of heat flow 2. Methods of heat	<p>1. Demonstrates and guides learners to:</p> <ul style="list-style-type: none"> • illustrate what 	<p>1. Perform simple experiments to illustrate heat flow and heat transfer e.g.</p>	<ul style="list-style-type: none"> • Source of heat • Iron rod • Beaker • Metal spoon 	<p>Learners to:</p> <p>1. describe the meaning of</p>

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	<p>2. describe the direction of heat flow;</p> <p>3. discuss the methods of heat transfer;</p> <p>4. state the applications of conduction, convection and radiation in daily life.</p>	<p>transfer:</p> <ul style="list-style-type: none"> • Conduction • Convection • Radiation. <p>3. Applications of heat flow in daily living.</p>	<p>happens when two bodies are in contact,</p> <ul style="list-style-type: none"> • perform simple experiments that show methods of heat transfer e.g. conduction, convection and radiation. <p>2. Initiates and guides the class to discuss the applications of heat flow in daily living.</p>	<ul style="list-style-type: none"> • observing conduction by dipping one end in of metal spoon hot water • observing convection currents in boiling water, etc. <p>2. Handle simple apparatus correctly.</p> <p>3. Participate in class discussions.</p>	<ul style="list-style-type: none"> • Water • Hot water • Empty cans • Thermometers 	<p>heat flow;</p> <p>2. state the direction of heat flow;</p> <p>3. describe two methods of heat transfer;</p> <p>4. explain the applications of heat flow in daily life.</p>
4. Chemical Energy	<p>Learners should be able to:</p> <p>1. deduce the meaning of chemical energy;</p>	<p>1. Meaning and sources of chemical energy</p> <p>2. Uses and importance of chemical energy</p>	<p>1. Uses simple activities to:</p> <ul style="list-style-type: none"> • help learners deduce the meaning of chemical energy, 	<p>1. Participate in class discussions.</p> <p>2. identify different sources of chemical energy.</p>	<ul style="list-style-type: none"> • Candles • Matches • Stove • Kerosene 	<p>Learners to:</p> <p>1. explain the meaning of chemical energy;</p> <p>2. list five sources of</p>

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	2. identify the sources of chemical energy; 3. discuss the uses of chemical energy.		<ul style="list-style-type: none"> guide learners to identify the sources of chemical energy. Initiates and guides learners to discuss the: sources of energy for the following: running, riding a bicycle, pounding, a working radio, a lighted torch, etc. uses and importance of chemical energy. 		<ul style="list-style-type: none"> Chart of sources and uses of Chemical energy. 	chemical energy; 3. suggest three uses of chemical energy.
5. Energy Conversion	Learners should be able to: 1. explain the meaning of energy conversion; 2. state the various ways of	1. Concept of energy Conversion 2. Forms of energy conversion 3. Importance	1. Displays charts and pictures of things that use energy to do work. 2. Uses the charts and pictures to guide learners to:	1. Identify and describe ways of converting energy from one form to another. 2. Carry out simple activities on	<ul style="list-style-type: none"> Pictures and charts. Electric pressing iron. Immersion heater (boiling ring). 	Learners to: 1. describe the concept of energy conversion; 2. identify various ways

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TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	converting energy from one form to another.	of energy conversion.	<ul style="list-style-type: none"> • explain the concept of energy conversion; • identify types of energy conversion; • state the importance of energy conversions. <p>3. Guides and supervises learners as they carryout simple activities to from convert energy one form to another.</p>	<p>energy conversion.</p> <p>3. Participate in class discussion.</p> <p>4. Copy Chalkboard summary.</p>	<ul style="list-style-type: none"> • Kerosene Stove. • Charcoal. • Pressing iron. • Bicycle Dynamo 	<p>of converting energy from one form to another;</p> <p>3. state the importance of energy conversion.</p>
6. Saving Energy	Learners should be able to: 1. explain the different ways energy can be saved; 2. identify	<p>1. Ways of saving energy</p> <p>2. Energy saving devices:</p> <ul style="list-style-type: none"> • Energy saving light bulbs • LED TVs 	<p>1. Displays charts and pictures of energy saving devices.</p> <p>2. Uses the charts and pictures to guide learners to:</p> <ul style="list-style-type: none"> • explain the different 	<p>1. Identify and describe ways of saving energy.</p> <p>2. Carry out simple activities on energy conservation.</p>	<ul style="list-style-type: none"> • Pictures and charts. • Energy saving bulbs and other devices. • Kerosene Stove. 	<p>Learners to:</p> <p>1. describe the different ways of saving energy;</p>

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THEME: YOU AND ENERGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	<p>of renewable energy;</p> <p>3. describe some everyday activities in their locality that use renewable energy;</p> <p>4. discuss the importance of renewable energy to the social and economic development of individuals and the nation.</p>	<ul style="list-style-type: none"> • wind energy • bio-fuel, • water (hydro) energy <p>3. Importance of renewable energy.</p>	<p>questions, charts and pictures to initiate and guide a class discussion on:</p> <ul style="list-style-type: none"> • meaning of renewable and non-renewable energy • activities involving renewable energy • benefits of renewable energy. 	<p>2. Identify renewable energy sources.</p> <p>3. Participate in the discussion and note the main ideas.</p> <p>4. Ask and answer questions.</p>	<p>3. Samples of non-renewable energy sources (coal, crude oil, wood, gas)</p> <p>4. local industries and places where renewable energy is used for work.</p>	<p>energy sources in the locality;</p> <p>3. name places and things in the locality that use renewable energy for doing work.</p> <p>4. explain the importance of renewable energy to social and economic development.</p>

ACCELERATED BASIC EDUCATION CURRICULUM: BASIC SCIENCE AND TECHNOLOGY

THEME: YOU AND ENERGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
	common energy saving devices in their environment; 3. explain the importance of saving energy.	<ul style="list-style-type: none"> • Smart home appliances • Rechargeable batteries • Rechargeable lamps, etc. <p>3. Importance of saving energy:</p> <ul style="list-style-type: none"> • Save the life of appliances • Makes environment healthy • Saves money, etc. 	<ul style="list-style-type: none"> ways of saving energy; • identify energy saving; • state the importance of saving energy. <p>3. Guides and supervises learners as they carryout simple activities to conserve energy.</p>	<ul style="list-style-type: none"> 3. Participate in class discussion. 4. Copy Chalkboard summary. 		2. list energy saving devices; 3. state the importance of saving energy.
7. Renewable Energy	Learners should be able to: 1. explain the meanings of renewable energy; 2. give examples	1. Meaning of renewable energy 2. Examples of renewable energy: <ul style="list-style-type: none"> • solar 	1. Takes learners to places in the community where renewable energy is used to do work. 2. Uses probing	1. Visit places in their community to observe renewable energy at work.	1. Pictures or charts of renewable energy sources e.g. solar plates, windmill, and hydroelectric source.	Learners to: 1. explain the meanings of renewable energy; 2. identify renewable

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LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING Resources	EVALUATION GUIDE
			TEACHER	LEARNERS		
1. The System Unit.	Learners should be able to; 1. identify the system unit on a computer system; 2. describe the component of a system unit; 3. identify parts of the CPU; 4. explain functions of the CPU.	1. Components of system unit: <ul style="list-style-type: none">• Hard Drive• Disk Drives• Motherboard• Processor 2. Parts of CPU: <ul style="list-style-type: none">• Arithmetic logic unit (ALU)• Control unit (CU) 3. Functions of the CPU	Uses pictures, charts and video clips to guide learners to: <ol style="list-style-type: none">1. recognise the system unit on the computer system;2. identify the components of the system unit,3. initiate and guide the class to discuss the functions of the ALU, RAM, and CU in the CPU.4. draw and label system unit.	1. Observe the displayed diagram and pictures and identify the system unit on a computer system 2. Watch video clips of the System Unit and describe parts of the CPU. 3. Discuss the functions of the ALU, RAM, and CU in the CPU. 4. Draw and Label the System Unit.	<ul style="list-style-type: none"> • Picture of a computer system • Chart on Parts of the System Unit • Video Clip • Samples of the Motherboard, hard drive, etc. • A computer system. 	<p>Learners to:</p> <ol style="list-style-type: none"> 1. recognise a system unit on a computer or in pictures and charts; 2. discuss the components of system unit; 3. name the parts of a system unit; 4. state the functions the CPU, ALU, RAM, and CU.

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THEME: UNDERSTANDING BASIC TECHNOLOGY

LEVEL 1

TOPIC	PERFORMANCE OBJECTIVES	CONTENT	ACTIVITIES		TEACHING AND LEARNING RESOURCES	EVALUATION GUIDE
			TEACHER	LEARNERS		
2. Starting up the computer	Learners should be able to: 1. define booting 2. state types of booting 3. follow the right steps to boot a computer; 4. successfully boot a computer.	1. Booting: <ul style="list-style-type: none">• Meaning of booting• Types of booting<ul style="list-style-type: none">- cold booting- warm booting• Steps for booting	1. Discusses with learners how some common devices are put on to bring out the meeting of booting 2. Demonstrates how a computer is booted 3. Explains the difference between cold and warm booting	1. Discuss with the teacher the different ways of putting on some devices such as radio, television, cell phone etc. 2. Observe the teachers' demonstration of how to boot a computer 3. Boot a computer.	• Computer system	Learners to: 1. define booting; 2. state the difference between warm and cold booting; 3. state the steps in booting a computer; 4. boot a computer.

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Project Coordinating Team			
S/NO	NAME	Role	Institution
1.	Professor Ismail Junaidu	Project Coordinator	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
2	Dr. Garba Dahiru Gandu	Project Manager	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
3	Dr. Chima Jonas Egbujuo	Project Technical Facilitator	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja

Basic Science and Technology Curriculum Technical Team		
S/N	Name	Institution
1	Professor Zephinus Njoku	University of Nigeria, Nsukka
2	Prof. Chinyere Ogbuanya	University of Nigeria, Nsukka
3	Dr. Grace Ajagun	Nigerian Educational Research and Development Council (NERDC) , Sheda-Abuja
4	Dr. Chima Jonas Egbujuo	Nigerian Educational Research and Development Council (NERDC) , Sheda-Abuja
5	Prof. Mariam. A. Suleiman	Ahmadu Bello University, Zaria
6	Mrs. Hadiza Nasir Wali	Borno State Ministry of Education, Maiduguri
7	Mr. Bala Mari Tatama	National Commission for Mass Literacy, Adult and Non -formal Education (NMEC) ABUJA
8	Dr. Nneji Godfrey	Federal College of Education (Technical), Yaba, Lagos
9	Mr. Nura G. Garba	Medile Primary School Kumbotso, Kano
10	Mr. Lawal Yahaya	Government Senior Secondary School, Dutsinma Katsina
11	Dr. Eleri Nhanna	Nigerian Educational Research and Development Council (NERDC) , Sheda-Abuja
12	Mr. Mu'azu Mamuda	Government Secondary School, Kaita, Katsina
13	Dr. David Kolawole Omole	Nigerian Educational Research and Development Council (NERDC) , Sheda-Abuja
14	Professor Uzoechi Beneath Coleman	Nasarawa State University, Keffi

Plenary Technical Team		
Name	Institution	
1 Dr. Nnabuihe Chigozie Bright	University of Lagos, Lagos	
2 Mr. Ogbonna Chidi	Nigerian Educational Research and Development Council (NERDC) Model School, Sheda-Abuja	
3 Professor Mamma Musa	Ahmadu Bello University, Zaria	
4 Dr. Nnaji N. Lambert	Alvan Ikoku Federal College of Education, Owerri	
5 Mr. Ibrahim Salaudeen	Nigerian Educational Research and Development Council (NERDC) Model School, Sheda -Abuja	
6 Mr. Famade Oladiran	Nigerian Educational Research and Development Council (NERDC) . Sheda -Abuja	
7 Mr. Lawal Ashura	S.U.N.C.A.I.S, Katsina State Ministry of Education	
8 Professor Ibrahim Galadima	Usman Danfodio University. Sokoto	

ACCELERATED BASIC EDUCATION CURRICULUM (BASIC SCIENCE AND TECHNOLOGY)

9	Dr. Akinsola Olakunle S.	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
10	Dr. Ighalo Odiagbe	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
11	Mr. Ibrahim Yahaya El -Ladan	Federal College of Education, Zaria
12	Professor Ahmed Amfani	Usman Danfodio University. Sokoto
13	Mr. Ibrahim Mohammed Gandu	Kano State College of Education, Kano
14	Mr. Salisu Ibrahim	G.G.D.S.S Rafindadi, Katsina State
15	Mr. Babagana Gartimari	Borno SUBEB
16	Mrs. Amina Ibrahim Abubakar	Abubakar Tatari Ali Polytechnic, Bauchi
17	Mr. Almustapha Sambo	Usman Danfodio University. Sokoto
18	Professor Kayode Omole	University of Abuja
19	Dr. Eva Kyaagba	Society for Gender and Child Advancement, Abuja
20	Dr. Imaobong Nsehe	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
21	Dr. Mikailu Ibrahim	FHI 360
22	Dr. Lawani Margaret	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
23	Professor Ismaila Tsiga	Centre for Reading Research and Development, Bayero University, Kano
24	Dr. Bernie Ikegulu	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
25	Professor Harrison Adeniyi	Lagos State University, Lagos
26	Dr. Babalola Victoria Olubanwo	Nigerian Educational Research and Development Council (NERDC), Sheda -Abuja
27	Professor Philip Ogundeleji Adetutu	University of Ibadan, Ibadan
28	Dr. Adesuyan Raphael Ayodeji	Adeyemi College of Education, Ondo
29	Mrs. Mary Owoduni	Nigerian Educational Research and Development Council (NERDC) Model School, Sheda -Abuja
30	Dr. Gloria Ngozi Ugbor	University of Nigeria, Nuskka
31	Dr. Nkechi Adiele	Nigerian Educational Research and Development Council (NERDC). Sheda -Abuja
32	Mrs. Okoro-Opara Anthonia	FCT Education Resource Centre, Abuja
33	Dr. Fidelis Egbe	Veritas University, Keffi
34	Dr. Judith kanu	Nigerian Educational Research and Development Council (NERDC) , Sheda-Abuja
35	Professor Garba Sa'ad	Bayero University, Kano

