Federal Ministry of Education

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

NIGERIAN EDUCATIONAL RESEARCH AND DEVELOPMENT COUNCIL (NERDC)

Nigerian Educational Research and Development Council (NERDC)

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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

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 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	• Those who have never been to school aged 10 and above
Level 2	• Those who have been to school up to primary 2 or 3 but dropped out due to one reason or the other.
Level 3	• 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

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;
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

TABLE OF CONTENTS

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. Mineral Resources of Nigeria	Learners should be able to: - 1. define mineral resources; 2. name some of the mineral resources found in their communities and in Nigeria; 3. state the location of the mineral resources; 4. state the importance of mineral resources to: • Nigeria's economy, • the individual, • industries.	1. Meaning of mineral resources. 2. Types of mineral resources in Nigeria: • coal • gold • tin • lime stone • crude oil, etc. 3. Location of the mineral resources. 4. Importance of the mineral resources to: • national economy, • individual, • industries.	1. Brings samples of mineral resources, e.g. crudes oil, tin ore, gold etc. 2. Using charts, maps and pictures, guides learners to: • explain the meaning of mineral resources, • identify and different types of minerals resources, • locate where they are found on the map of Nigeria, • discuss the uses and importance of mineral resources to individuals, the industries and national economy.	1. Identify the mineral substances provided. 2. Describe their characteristics colour, shape, smell, hardness, etc. 3. Distinguish between sample of crude oil and water. 4. Group the minerals into solids and liquid 5. State the importance of mineral resources.	Samples of mineral e.g. • Crude oil • Coal • Iron ore • Lime stone etc. • Water • Alum .	Learners to: 1. define mineral resources; 2. list the mineral resources in Nigeria and their locations; 3. discuss the importance of mineral resources to the individual, industries and Nigeria's economy.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Acids and Bases	Learners should be able to: - 1. define acids and bases; 2. differentiate between physical properties of acids and bases; 3. discuss the uses and importance of acids and bases; 4. explore the presence of acids and bases in fruits and some local foods.	1. Meaning of acid and base. 2. Properties of acids and bases. 3. Uses and importance of acids and bases. 4. Identification of acids and bases in local fruits and other substances.	1. Provides learners with ripe and unripe fruits, sour milk and some common laboratory indicators 2. Guides learners to: • differentiate between acids and bases by taste • prepare indicators from flowers and leaves of plants • use indicators for determining the presence of acids and base in local foods • discuss the uses and importance of acids and bases. 3. Supervises learners as they taste and observe the presence of acids and bases in foods and fruits.	1. Identify acids and bases using laboratory indicators 2. Taste food items to identify those containing acids and bases. 3. Prepare indicators from flowers and leaf extracts 4. Perform the activity of preparing indicator from hibiscus flower leaves.	• Ripe and unripe fruits (mango, orange, paw-paw, grape, lime, etc. • Sour milk • Brightly coloured flowers or leaves • Water • Litmus paper • Methyl orange and phenolphthalein • Leaves of hibiscus flower • Mortar and pestle • Container. • Ethanol	Learners to: 1. define acids and bases; 2. mention some common fruits and foods that contain acids and bases; 3. state the differences between acids and bases; 4. list the uses of acids and bases; 5. determine the presence of acids and bases in fruits and local foods.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
3. The Solar System	Learners should be able to: - 1. define the solar system; 2. identify the planets of the solar system; 3. discuss the relationship between the earth, sun, stars and moon; 4. describe the rotation and revolution of the earth; 5. illustrate the eclipse of the sun and the moon; 6. explain the effects of the earth's movements on weather,	1. Components of the solar system. 2. Relationship between the earth, sun and moon. 3. The earth movements and effects e.g. • Rotation, • Revolution, • Eclipse (solar and lunar), • moon phases, etc. 4. Gravity and weightlessness 5. Sources of light for the earth: • sun as the primary source of heat and light energy on earth. • Moon	1. Guides learners to: • explain the solar system • illustrate the component of the solar system • discuss the relationship between the earth, sun and moon • make a model of the solar system. 2. Uses models, charts and video clips to explain: • gravitation and weightlessness, • rotation and revolution of the earth, • eclipses of the sun and moon,	1. Watch teacher demonstrations and illustrations. 2. Make models of the solar system, eclipse of the sun and moon. 3. Watch video clips of weightlessness in space. 4. Participate in class discussion 5. Ask and answer questions.	• Charts and diagrams of the solar system • Charts/models/ diagrams on rotation and revolution of the earth; moon sun and eclipses, etc. • Balls • Flash light • Balloon • A piece of paper • Videos showing human in space and eclipses of the sun and moon.	Learners to: 1. explain the solar system; 2. list the components of the solar system; 3. explain the relationship between the sun, earth, moon and stars; 4. state causes of: • day and night, • eclipses of the sun and moon, • weather and climate, • seasons of the year; 5. discuss the relationship between gravity and weightlessness;

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
	seasons and climate 7. explain gravity and weightlessness; 8. identify the sources of light for the earth		• seasons of the year. 3. Initiates and guides the class to discuss the sources of light for the earth			6. name the sources of light for the earth.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. Foods and Food Nutrients	Learners should be able to: 1. explain the meaning of food and food nutrients; 2. identify different types of food nutrients and their sources; 3. test local food for nutrients.	1. Meaning of food nutrients. 2. Types and sources of nutrients: • Proteins • Carbohydrates • Fats and oils • Vitamins • Minerals. 3. Testing local food for nutrients.	1. Guides learners to explain food nutrients; 2. Leads learners to discuss types and sources of food nutrients. 3. Ask learners to bring different types of foods to the class 4. Guides learners to test local food items for: • Proteins • Carbohydrates • Fats and oils • Vitamins • minerals.	1. Discuss the meaning, types and sources of food nutrients. 2. Group different types of food based on the nutrients in the foods. 3. Test different types of food for: • Proteins • Carbohydrates • Fats and oils • Vitamins • minerals.	• Pictures, charts and poster showing different types of foods. • Samples of local food items like gari, yam, millet, sorghum, yoghurt, beans, orange, groundnuts, eggs, etc.	Learners to: 1. explain the meaning of foods and food nutrients; 2. list 5 different types of food nutrients; 3. classify the different types of food based on the they contain; 4. test local foods for the different types of nutrients.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Nutritional Diseases	Learners should be able to: 1. explain the meaning of nutritional diseases; 2. identify different types of nutritional diseases; 3. describe the causes of various nutritional diseases; 4. highlight their symptoms; 5. discuss methods of preventing nutritional diseases.	1. Meaning of nutritional diseases 2. Types of nutritional diseases: • Kwashiorkor • Anemia • Scurvy • Beriberi • Obesity, etc. 3. Causes and symptoms of nutritional diseases. 4. Prevention of nutritional diseases.	1. Guides learners to explain the meaning and causes of nutritional diseases. 2. Takes learners to nearby health centres to observe and identify various forms of nutritional diseases in children and adults. 3. Guides learners to discuss: • the causes and symptoms of nutritional diseases • ways of preventing the diseases.	1. Explain meaning and causes of nutritional diseases. 2. Visit nearby hospitals or health centres. 3. Observe and identify different types of nutritional diseases. 4. Participate in discussions. 5. Takes down notes.	• Pictures, Charts, Films clips and slides showing children with nutritional diseases and how to prevent diseases. • Nearby pediatric hospitals, health centres and IDP camps with malnourished children and adults.	Learners to: 1. define nutritional diseases; 2. describe different types of nutritional diseases; 3. state their causes; 4. state the symptoms of the different types of nutritional diseases; 5. explain the various methods of preventing their occurrence.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
3. Light Energy	Learners should be able to: 1. explain the meaning of refraction; 2. illustrate apparent depth and explain its danger to swimmers; 3. describe how people see things; 4. explain the meaning of dispersion; 5. interpret the rainbow as dispersion of light.	1. Refraction 2. Vision 3. Dispersion of light and rainbow.	1. Uses simple experiments to help learners explain the meaning of refraction. 2. Leads learners to observe and describe a coin dropped in a glass tumbler containing water. 3. Guides learners to identify major parts of the eye and how vision occurs. 4. Guides learners to: • separate light into its characteristic colours • associate the rainbow with dispersion of light by raindrops.	1. Put a straight stick half in water and state their observation. 2. Observe the coin and use it to recognize apparent depth. 3. Identify parts of the eye and relate vision to refraction. 4. Observe colours of light separated by prism. 5. Interpret rainbow as dispersion of light in raindrops.	• Water • Empty glass bottles • Glass Tumblers • Straight stick • Coin • Chart or model of the eye • Source of light • Prism • Drawing pins.	Learners to: 1. describe refraction; 2. demonstrate the concept of apparent depth; 3. state one danger of apparent depth to amateur swimmers; 4. describe how vision takes place; 5. name the parts of the eye that enable people to see; 6. define dispersion; 7. explain the process of rainbow formation.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STATE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. Drawing Instruments	Leaners should be able to: 1. define drawing instruments; 2. identify drawing instruments; 3. state the uses of the instruments; 4. construct basic shapes and lines with the drawing instruments; 5. care for drawing instruments and materials.	1. Identification of Drawing Instrument and their uses. 2. Board practice using instrument to draw lines and shapes.	1. Displays drawing instrument and materials for identification. 2. Guides learners to name the drawing instruments. 3. Explains the uses of the various instruments. 4. Demonstrates the use of the various. 5. Guides the learners to practice the use drawing instruments correctly.	1. Identify the instruments, and note their names and uses. 2. Watch the teacher demonstrate the uses of drawing instruments. 3. Use drawing instruments to construct various shapes and lines. 4. Take good care of the instrument.	• Drawing paper • Drawing board • Ruler • Set square • Compass • Pencils • Eraser, etc.	Learners to: 1. list five drawing instruments; 2. state the uses of the instruments; 3. use the appropriate instrument to: • draw lines • construct shapes like a circle, square, rectangle, etc.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Woodwork Hand Tools	Learners should be able to: 1. identify woodwork tools e.g. measuring tools, driving tools, boring tools, work holding devices; 2. make sketches of woodwork hand tools; 3. state the uses of each woodwork hand tool.	1. Meaning of Hand Tools 2. Types and examples woodwork hand tools: • Measuring Tools (Tape, Ruler, Metal Rule) • Marking Tools (Scriber, Divider, Centre Punch) • Cutting Tools (Saws, Planes etc.) 3. Care for woodwork hand tools.	1. Displays woodwork hand tools for identification. 2. Leads learners to classify the tools and give example. 3. Guides learners to: • identify the woodwork hand tools, • state their uses, • make sketches of the hand tools. 4. Demonstrates the uses of various hand tools. 5. Shows learners how to care for woodwork hand tools.	1. Identify woodwork hand tools. 2. Classify the woodwork hand tools. 3. Watch the teacher demonstrate the use of woodwork hand tools. 4. Make sketches of hand tools. 5. Use the hand tools to perform some operations such as hammering, cutting, nailing etc. 6. Participate in class discussion.	• Tapes, • Still rule and • G-clamp • Scriber • Divider • Centre punch, • Saw • Planes	Learners to: 1. name four wood work hand tools; 2. describe the function of the hand tools; 3. draw and label wood work hand tools; 4. mention the appropriate hand tool used for cutting, measuring and marking out; 5. discuss three (3) ways of caring for woodwork hand tools.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 1						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
3. Protection and Safety of Computers, Other Online Devices and Gadgets	Learners should be able to: 1. identify various forms of protection for computers and other online devices; 2. list three reasons for protecting computers; 3. create and use of passwords; 4. state the uses of anti-virus.	1. Ways of protecting computers, online devices and gadgets: • Password • Anti-virus etc. 2. Reason for protecting computers and other online devices and gadgets.	Guides learners to: 1. discuss ways of protecting computers and other online devices; 2. explain how password protect the computer system, online devices and gadgets; 3. create and use passwords to protect their online devices and gadgets; 4. explore and identify antivirus and other protection software in computers and online devices; 5. install antivirus in computer systems; 6. state reasons for protecting computers and other online devices; 7. create passwords.	1. Participate in class discussion 2. Create and use passwords. 3. Explain the various ways of protecting computers and other online devices and gadgets. 4. Explore computer systems and other devices to identify protection software. 5. Install an antivirus in a computer system.	• Poster • Charts • Computer • Pictures • Antivirus devices.	Leaners to: 1. explain ways of protecting computers and other online devices; 2. create and use passwords 3. state the uses of antivirus; 4. install antivirus in a computer system; 5. state three reasons for protecting computers and other online devices.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENTS**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. The Reproductive Systems	Learners should be able to: 1. state the meaning of reproduction; 2. draw the structure of human reproductive organs; 3. state the functions of the reproductive organs; 4. explain the importance of reproduction in human beings.	1. Meaning of reproduction. 2. Structure of male and female reproductive organs. 3. Functions of the reproductive organs. 4. Importance of reproduction.	1. Provides charts and models of human reproductive organs. 2. Uses the charts and models to guide learners to: • define reproduction, • identify, draw and label the reproductive organs, • discuss the functions of the reproductive organs, • explain the importance of reproduction organs.	1. Observe the models drawings and charts of the human reproductive organs. 2. Draw and label diagrams of the human reproductive organs. 3. Explain the functions of reproductive organs. 4. Explain the importance of reproduction.	Models, charts and drawings of reproductive organs.	Learners to: 1. define reproduction; 2. identify the organs of the human reproductive system; 3. explain the functions of the organs; 4. make labeled drawings of male and female reproductive organs; 5. state the importance of reproduction.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Reproduction in Plants	Learners should be able to: 1. identify parts of a flower; 2. explain the meaning of pollination; 3. identify agents and types of pollination; 3. identify parts of a flower that are concerned with pollination and fertilization; 4. describe stages of development from flower to fruit; 5. distinguish between pollination and fertilization.	1. Parts of a flower. 2. Pollination • types, • process, • agents. 3. Fertilization. 4. Stages of development from flower to fruits.	1. Provides flowers e.g. hibiscus to guide the learners to identify parts of a flower. 2. Leads learners to draw a flower and labels its parts. 3. Guides the learners to identify parts of a flower. 4. Guides discussion on pollination and fertilization. 5. Guides discussion on the development of fruits from flower.	1. Bring flowers to the class. 2. Identify and name parts of a flower. 3. Draw a flower and label its parts. 4. Identify parts of a flower that produce fruit. 5. Participate in the discussion on pollination and fertilization. 6. Identify stages of development from flower to fruit.	• Life flowers e.g. hibiscus, cowpea flower. • Chart or diagram of a flower, agents of pollination, development from flower to fruit. • Drawing book. • Pencil.	Learners to: 1. name and identify parts of a flower; 2. list the types of pollination; 3. list the agents of pollination; 4. list the changes that occur at different stages of development from flower to fruit; 5. distinguish between pollination and fertilization in flowering plant; 6. draw and label a given flower.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION**
			TEACHER	**LEARNERS**		
1. Family Size, Nutrition and Nutritional Diseases	Learners should be able to: 1. discuss the meaning of family size; 2. outline effects of family size on nutrition; 3. discuss the implication of family size on nutrition and nutritional diseases.	1. Meaning of family size. 2. Effects of family size on nutrition. 3. Implication of family size on nutrition and nutritional diseases.	Guides learners to: 1. explain the meaning of family size; 2. describe the effects of family size on nutrition; 3. discuss the implications of family size on nutrition and nutritional diseases.	1. Identify, describe and compare different family sizes. 2. Participate in discussing and explaining the effects of family size on nutrition and nutritional diseases. 3. Ask and answer questions.	• Pictures, charts and posters showing different family sizes. • Video clips showing the various effects of having large family on feeding and feeding habits.	Learners to: 1. explain the meaning of family size; 2. state two (2) effects of family size on nutrition; 3. state the implications of family size on feeding habits, nutrition and nutritional diseases.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Drug Abuse	Learners should be able to: 1. state the meaning of drug abuse; 2. enumerate drugs that are commonly abused; 3. identify tobacco and alcohol as commonly abused drugs; 4. discuss reasons for abusing tobacco and alcohol; 5. explain consequences of tobacco and alcohol abuse to the: • individuals; • family and • society	1. Meaning of drug Abuse 2. Commonly abused drugs e.g. tobacco and alcohol 3. Reasons for abusing common drugs 3. Effect of alcohol and tobacco abuse on: • individual • family and • society	1. Uses charts and video clips to explain the meaning of drug abuse and why people abuse common drugs like tobacco and alcohol in drug abuse. 2. Guides learners to: • identify commonly abused drugs • discuss the consequences drug abuse to the individual, family and society.	1. Watch and listen to the teacher as he explains why young people get involved in drugs. 2. Identify and discus: • commonly abused drugs • the consequences of tobacco and alcohol abuse to the individual, family and society. 3. Ask and answer questions	• Charts showing various drugs • Posters, video clips • Sample of tobacco, alcohol • Pictures of drug addicts	Learners to: 1. discuss one commonly abused drug; 2. give two reasons why young people get involved in drugs.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. Force	Learners should be able to: 1. describe force as push or pull; 2. show evidence of force with examples; 3. discuss the effects of force.	1. Meaning of force: • Push • Pull 2. Evidence and examples of force. 3. Effects of force.	1. Guides learners to push and pull, squeeze, bend and stretch objects to deduce the meaning of force. 2. Uses chart, pictures and videos of force to help learners: • recognise force in action, • give examples of force. 3. Initiates and guides a discussion of the effects of force.	1. Carry out activities that illustrates the meaning of force as push, pull. 2. Watch videos showing evidence of force. 3. Describe the effects of force on things. 4. Participates in class discussions. 5. Ask and answer questions.	• Fixed door paper, spring, rubber bands. • Charts showing contact and non-contact forces. • Objects of known mass. • Metre-rule. • Spring balance (Newton-metre) • Knife edge. • Slotted weights. • Toy cars. • Cardboards paper. • Rough surface. • Sandpaper.	Learners to: 1. explain the meaning of force; 2. give examples of force; 3. recognise the impact of force around the environment. 4. describe the effects of force on things around them.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
2. Types of Force	Learners should be able to: 1. define contact force; 2. give examples of contact forces; 3. differentiate between the different types of contact forces; 4. illustrate the existence of contact forces; 5. explain the importance of contact forces	1. Contact force • Meaning • Types and examples of contact force: - Tension – as in stretching of a spring, etc. - Friction (e.g. kicking a ball, pushing the door, hitting the ball, etc.	1. Guides learners to push, squeeze and stretch objects. 2. Provides charts and pictures showing contact forces in action. 3. Guides learners to demonstrate the existence of contact forces. 4. Initiates and guides learners to discuss the effects of contact forces.	1. Carry out activities as directed by teacher e.g. push and pull, etc. 2. Identify contact forces in action from pictures and charts. 3. Use simple activities to prove the existence of contact and non-contact forces. 4. Participate in class discussion.	• Fixed door • Spring, • Rubber bands • Charts showing contact and non-contact forces • Objects of known mass, • Metre-rule, • Spring balance • Toy car • Rough and smooth surfaces.	Learners to: 1. define contact force; 2. name two contact forces; 3. use simple activities to illustrate the existence of contact forces; 4. describe the effects of the forces on things in their environment.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
3. Types of Force	Learners should be able to: 1. explain the meaning of non-contact force; 2. identify non-contact forces; 3. illustrate the existence of non-contact forces like electrical, magnetic and gravitational forces; 4. explain the importance of gravitational, electrical and magnetic forces.	2. Non-contact force: • Meaning of non-contact force. • Examples of non-contact force: - Gravitational force, - Electrical force, - Magnetic force.	1. Provides charts and pictures showing non-contact forces in action. 2. Guides learners to demonstrate the existence of non-contact forces. 3. Initiates and guides learners to discuss the effects of non-contact forces on things in the environment.	1. Identify non-contact forces in action from pictures and charts. 2. Use simple activities to prove the existence of non-contact forces. 3. Participate in class discussion.	• Magnets • Charts showing non-contact forces • Iron filings • Cardboards paper • Stone	Learners to: 1. define non-contact force; 2. name two non-contact forces; 3. use simple activities to illustrate the existence of non-contact forces; 4. describe the effects of non-contact forces on things in their environment.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
4. Friction	Learners should be able to: 1. explain friction as the resistance between two surfaces in contact, 2. explain the effects of friction on things around them; 3. mention instances of the application of frictional force in daily activities; 4. state the advantages and disadvantages of friction 5. suggest ways of reducing friction.	1. Meaning of friction. 2. Effects and applications of friction in daily life: • Grinding • Breaks of cars • Walking • Sitting, • Wear and tear on tyres, shoes, etc. 3. Advantages and disadvantages of friction.	1. Uses chart, pictures and videos of force to help learners: • deduce the meaning of friction • give examples of friction • recognise the applications of friction in their daily activities • explain the advantages and disadvantages of friction. 2. Initiates and guides a discussion of ways of reducing friction.	1. Watch videos showing evidence of friction. 2. Carry out activities to show evidence and effects of friction. 3. Describe the effects of friction on things. 4. Participates in class discussions. 5. Ask and answer questions.	• Strings or pieces of thread • Stone • metre-rule, • Spring Balance • Toy car • Rough and smooth surfaces. • Soap • Ball bearings • Grease	Learners to: 1. define friction; 2. recognise the effects of friction on things around the environment; 3. explain the applications of friction in their daily life; 4. outline the advantages and disadvantages of friction; 5. identify ways of reducing friction.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 2						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
The Internet	Learners should be able to: 1. state the meanings of Internet, browser, world wide web and e-mail; 2. create personal e-mail accounts; 3. send and receive emails; 4. discuss the uses of the Internet; 5. describe the various ways of abusing the Internet; 6. explain the safety measures to take while using the Internet.	1. Meaning of: • Internet browser • World wide web (www) • e-mail. 2. Creating personal email accounts. 3. Sending and receiving mails online. 4. Uses and abuses of the Internet. 5. Staying safe online.	1. Leads learners to define the following: Internet, browser, world wide web (www), e-mail etc. 2. Guides learners to: • create personal e-mail accounts, • send and receive mails online. 3. Initiates and guides a class discussion of: • the uses and abuses of the Internet, • ways of staying safe online.	1. Explain the meaning of Internet, browser, world wide web and e-mail. 2. Create personal e-mail accounts. 3. send and received emails. 4. Participate in class discussions. 5. Ask and answer questions. 6. Copy notes from the chalk board.	• Computer system • Internet enabled devices • Internet connectivity • Charts, pictures and posters showing uses and abuses of the Internet • Video clips and documentaries on crimes and other online abuses.	Learners to: 1. explain the meanings of world wide web, browser, e-mail etc.; 2. create e-mail accounts; 3. send and receive mails online; 4. outline the uses of the Internet; 5. describe the various ways people abuse the Internet; 6. discuss the safety measures to take while online.

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENTS**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. The Human Digestive System	Learners should be able to: 1. define the digestion; 2. describe the human digestive tract; 3. identify organs of the digestive system; 4. describe the functions of the various organs; 5. draw and label the human digestive system; 6. make a list of human digestive enzymes; 7. identify the locations of the enzymes in the digestive tract;	1. Meaning of digestion. 2. The digestive organs and their functions. 3. Structure of human digestive system. 4. Names, functions and locations of digestive enzymes.	1. Provides models, charts, and drawings of human digestive system. 2. Leads learners to: • define digestion • identify human digestive organs • trace the movement of ingested food from the mouth, and through the digestive tract • draw the digestive system • make a list of the digestive enzymes and their locations in the digestive tract.	1. Provide any teaching/learning resources requested by the teacher. 2. Carry out learning tasks such as drawings and take home assignments 3. Respond to teachers' questions and promptings during class interactions. 4. Discuss the digestive processes which a piece of food substance undergoes from the mouth to elimination at the anus.	• Models and charts of the digestive system • Learner – made - drawings of the digestive system.	Learners to: 1. explain the meaning of digestion; 2. name the digestive organs in humans; 3. discuss the functions of the digestive organs; 4. draw and label the human digestive system 5. name two human digestive enzymes; 6. state the locations of the enzymes in the digestive tract; 7. describe the functions of the enzymes.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENTS**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
	8. explain the functions of the enzymes.		3. Puts learners into small into small groups to discuss the functions of the digestive organs and enzymes.	5. Draw and label the human digestive system.		

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: LEARNING ABOUT THE ENVIRONMENT **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENTS**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. The Human Respiratory System.	Learners should be able to: 1. state the meaning of respiration; 2. identify the organs in human respiratory system; 3. draw and label human respiratory organs; 4. state the functions of the respiratory organs; 5. differentiate between breathing and respiration; 6. state the importance of respiration in humans and other living things.	1. Meaning of respiration. 2. Human respiratory organs and their functions. 3. Importance of respiration.	1. Provides models and charts of respiratory system in humans. 2. Leads learners to: • define respiration • differentiate between breathing and respiration • draw and label the human respiratory organs and system • discuss importance of respiration.	1. Carefully observe the models and charts provided by the teacher. 2. Carry out activities to illustrate respiration. 3. Draw and label diagrams of the respiratory system 4. Identify and state the functions of organ of the human respiratory system.	• Models, Charts and drawings of human respiratory organs and system.	Learners to: 1. identify at least two organs of the human respiratory system; 2. explain the differences between breathing and respiration; 3. draw and label the human respiratory system; 4. state the functions of respiratory organs.

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
Consequences of Drug Abuse	Learners should be able to: 1. explain the effects of drug abuse on human health; 2. discuss specific effects of drugs abuse on: • Respiratory tract • Blood pressure • Weight loss • Death	1. Health Consequences: • Respiratory tract infection • Abnormal blood pressure • Weight loss • HIV infection • Death	1. Guides learners to explain the meaning of drug abuse. 2. Guides learners to explain reasons for drug abuse and its impact on health. 3. Discusses specific effects of drug abuse on: • respiratory tract • blood pressure • body weight • health 4. Takes learners on a visit to rehabilitation homes where drug addicts are kept.	1. Participate in class discussion. 2. Ask and answer questions. 3. Discuss the specific effects of drugs abuse on: • respiratory tract • blood pressure • body weight • health 4. Listen and take down notes. 5. Visit a rehabilitation homes to observe the effects of drug abuse on addicts.	1. Pictures 2. Charts 3. Video clips showing victims suffering from the effects of drug abuse. 4. Nearby rehabilitation home for drug addicts. 5. Posters showing different categories of people that are suffering from drug abuse.	Learners to: 1. explain the meaning of drug abuse; 2. discuss four reasons for drug abuse; 3. explain two effects of drug abuse on: • respiratory tract • blood pressure • body weight • health; 4. write a brief report on the visit.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: HEALTH, SPORTS AND GAMES **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
	Learners should be able to: 1. identify socio-economic effects of drug abuse; 2. explain effects of drug abuse on: • academic performance; • school attendance; • family wealth.	2. Socio-economic consequences of drug abuse • Poor performance in school; • Truancy; • Prostitution • Financial waste • Anti-social behaviour in school.	1. Guides the learners to explain the meaning of socio-economic effects of drug abuse. 2. Guides the learners to identify various effects of drug abuse. 3. Explains the socio-economic effects of drug abuse on: • academic performance; • school attendance; • prostitution • family wealth	1. Ask and answer questions on the meaning of socio-economic effects of drug abuse. 2. Listen to the teacher as he identifies various effects of drug abuse. 3. Discuss and take down notes on the socio-economic effects of drug abuse on: • academic performance; • school attendance; • family wealth	• Pictures, Charts and Video clips of victims suffering from socio-economic effects of drug abuse.	Learners to: 1. explain the meaning of socio-economic effects of drug abuse. 2. list 3 socio-economic effects of drug abuse. 3. discuss 2 effects of drug abuse on: • academic performance; • school attendance; • family wealth

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
1. Composition of Matter	Learners should be able to describe the basic constituent of matter.	1. The particles of matter: – atoms, – protons, – neutrons, – electrons	1. Guide learners to the behaviour of materials like perfume, salt placed in water, etc. 2. Lead learners through discussions to associate the behaviour of the materials observed with movement of particles that make up the materials.	1. Observe and describe the behaviour of materials. 2. Participate in discussions.	• Water. • Salt • Sugar • Perfume or Body Spray • Iodine Crystal. • Glass bowl • Basic Science and Technology Notebook	Learners to identify the basic component of matter.
2. Structure of Matter	Learners should be able to: 1. describe the three states of matter; 2. ~~group~~ materials as solids, liquids or gas.	1. States of Matter	1. Take Learners on a walk around the school to collect materials. 2. Guide learners to: • observe and describe the materials collected as solids, liquids and gas,	1. Learners observe and group materials collected. 2. Participate in class discussion. 3. Give more examples of solid, liquid and gaseous matter.	• School Compound • Sand. • Bottle • Funnel • Water • Kerosene	Learners to: 1. identify solid, liquid and gaseous matter; 2. group things in the classroom as solids, liquids, or gas.

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
			• state the differences between solids, liquids and gaseous matter, • identify and group things in their classroom as solids, liquids and gas.		• Perfume or Body Spray • Groundnut oil • Basic Science and Technology Notebook.	
3. States of Matter	Learners should be able to: 1. describe ways of changing common materials from one state to another; 2. associate the change of state with the increase in energy or decrease in energy.	2. Change of state	1. Demonstrate change of state to the class 2. Guide learners to: • describe the process of changing ice blocks to water and steam; • suggest procedure for getting the ice block ~~back.~~ • associate change of state in matter with: - addition of heat (increasing energy), ~~or~~ - removal of heat (lowering of energy).	1. Watch Teacher demonstration. 2. Ask and answer questions. 3. Participate in class discussion.	• ~~Stove~~ • Water. • Ice Blocks • Basic Science and Technology notebook	Learners to: 1. explain the different ways of changing the state of common materials; 2. link change of state to increase or decrease in the energy of the particles of materials.

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
4. Kinetic Energy	Learners should be able to: 1. state the assumptions of the kinetic theory; 2. explain the structure of solids, liquids and gases based on the energy of moving particles; 3. relate energy of the particles of water and the assumptions of the kinetic theory to boiling, evaporation, condensation and freezing.	1. Meaning and assumptions. 2. Kinetic energy and change of state (boiling, evaporation and condensation and freezing).	Provides charts of molecular structure of solids, liquids and gas and leads learners to: 1. describe the structure of solids, liquids and gas, 2. discuss the assumptions of the kinetic theory, 3. explain the differences between boiling, evaporation and condensation and freezing 4. associate boiling, evaporation and condensation and freezing to the energy in the particles of water.	1. Participate in class discussion. 2. Perform simple experiments to illustrate the energy of particles of matter. 3. Use the results of their experiments to: • relate the structure of solids, liquids and gas to the energy of particles; • associate changes in the state of water (boiling, evaporation, condensation and freezing) to energy of the particles; • deduce the assumptions of the kinetic theory.	• Charts on structure of solids, Liquids and gates. • Glass cups (2) • Water • perfume • Transparent glass or rubber tube • Source of heat.	Learners to: 1. state three assumptions of kinetic theory; 2. use the kinetic theory to explain the structure of solids liquid and gas; 3. state the difference between boiling and evaporation.

ACCELERATED BASIC EDUCATION CURRICULUM

THEME: YOU AND ENERGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
5. Work Energy and Power	Learners should be able to: 1. explain the meaning of work, energy and power; 2. apply the formula: Power = $\frac{\text{Work done}}{\text{Time}}$ 3. identify the types of energy transfers that occur when work is done.	1. Meaning of work, energy and power. 2. Simple calculations involving work, energy and power. 3. Energy transfer when work is done.	1. Guides learners to deduce the meaning of work and the relationship between work, energy and power. 2. Leads learners to: • verify the concepts work, energy, and power • solve simple problems involving work, energy and power • demonstrate the energy transfers that occur when work is done.	1. Carry out simple activities to measure potential and kinetic energy. 2. Determine work done by a falling object from a given height. 3. Calculate the power used to do a known amount of work in a given time. 4. Participate in class discussion. 5. Take notes of the main ideas.	• Objects like metre rule • ball, stones, books. • Wound clock • Toy car • Bicycle. • High table • Glass	Learners to: 1. define work, energy and power; 2. apply mathematical formula to solve simple problems involving work energy and power; 3. identify energy transfers that occur when work is done.

THEME: YOU AND ENERGY **LEVEL 3**

<table>
<tr><th colspan="6">STAGE 3</th></tr>
<tr><th rowspan="2">TOPIC</th><th rowspan="2">PERFORMANCE OBJECTIVES</th><th rowspan="2">CONTENT</th><th colspan="2">ACTIVITIES</th><th rowspan="2">TEACHING AND LEARNING RESOURCES</th><th rowspan="2">EVALUATION GUIDE</th></tr>
<tr><th>TEACHER</th><th>LEARNERS</th></tr>
<tr>
<td>6. Energy Transfer in Home Appliances</td>
<td>Learners should be able to:
1. list common house hold appliances;
2. state the uses of the appliances;
3. identify the type of energy used for operating the appliances;
4. explain the concept of energy transfer;
5. describe the energy transfers occurring in the appliances when in use.</td>
<td>1. Types of Home Appliances
2. Uses of the Appliances:
• Fan
• Iron
• Radio
• Stove
• Blender
• Electric kettle
• Torch light
• Clock, etc.
3. Energy transfers in home appliances.</td>
<td>1. Displays the chart and pictures of some household appliances and guides learners to:
• identify common household appliances,
• state the uses of the appliances,
• discuss the type of energy transfers by the appliances when used.
2. Guides and supervises learners to operate common household appliances.
3. Initiates and guides the learners to discuss the energy transfers taking place in appliances being used.</td>
<td>1. Observe household appliances and explain the type of energy used by the appliances.
2. Operate common household appliances.
3. Observe and identify the types of energy used and energy transfers in household appliances.
4. Completes the following Table as take-home assignment:
<table>
<tr><th>Appliance</th><th>Energy Used</th><th>Energy conversion</th></tr>
<tr><td>Fan</td><td></td><td></td></tr>
<tr><td>Clock</td><td></td><td></td></tr>
<tr><td>Blender</td><td></td><td></td></tr>
<tr><td>Radio</td><td></td><td></td></tr>
<tr><td>Clock</td><td></td><td></td></tr>
<tr><td>Maize Thresher</td><td></td><td></td></tr>
<tr><td>Electric iron</td><td></td><td></td></tr>
<tr><td>Television</td><td></td><td></td></tr>
<tr><td>Torch light</td><td></td><td></td></tr>
</table>
</td>
<td>• Charts and pictures of household appliances
• Radio
• Torch light
• Batteries
• Clock
• Watches</td>
<td>Learners to:
1. identify household appliances by name;
2. explain the uses of the appliances;
3. describe the type of energy used by the appliances;
4. describe the meaning of energy transfer;
5. explain the energy transfers that take place during the use of three household appliances.</td>
</tr>
</table>

THEME: UNDERSTANDING BASIC TECHNOLOGY **LEVEL 3**

STAGE 3						
TOPIC	**PERFORMANCE OBJECTIVES**	**CONTENT**	**ACTIVITIES**		**TEACHING AND LEARNING RESOURCES**	**EVALUATION GUIDE**
			TEACHER	**LEARNERS**		
Drawing with the Computer	Learners should be able to: 1. discuss the features and uses of the Corel Draw and Paint Artist; 2. use the packages to make geometrical drawings; 3. use the packages to produce freehand drawings.	1. Drawing packages • Corel draw • Paint Artist 2. Features of the drawing packages 3. Drawing with Paint Artists: • Geometric drawing • Freehand drawing 4. Using the fill tools in the Paint Artists.	1. Find out what learners have been drawing and what they used to produce the drawings 2. Guides learners to: • discuss the features of drawing packages, • make geometrical and freehand drawings with the Paint Artists, • use the fill tools to colour and shade their drawings.	1. Identify and discuss the features of computer drawing packages. 2. Observe teachers' demonstrations on the use of the packages. 3. Use the Paint Artist to produce geometric and freehand drawings of objects.	• Computer system with Corel draw and Paint Artist.	Learners to: 1. identify the features of Corel Draw and Paint Artist; 2. state the uses of drawing packages; 3. use Corel Draw and Paint Artist to: • produce geometric shapes, • make freehand drawings of objects.

ACCELERATED BASIC EDUCATION CURRICULUM (BASIC SCIENCE AND TECHNOLOGY)

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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 Ogundeji 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
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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