PRY 6 BASIC SCIENCE AND TECHNOLOGY 2ND TERM E-NOTE

THEME 2 LIVING AND NON-LIVING THINGS WEEKS TOPICS/ CONTENTS

- 1. Revision of First Term's Work
- 2. The Human reproductive System
- The Meaning of reproduction
- The structure and function of male reproductive organ
- The Structure and function of female reproductive organ
- 3. Responsible Parenthood
- Safe age for reproduction
- Changes in male and female during puberty
- Responsible sexual behavior
- Identification of sexually irresponsible behaviour
- Consequences of indiscriminate or irresponsible sexual behaviour
- 4. Water Projects
- Example of water projects in Nigeria e.g. Canals, Dams, Water ports, e.t.c.
- Benefits and Hazard of Water Projects
- 5. Air
- Meaning of Air
- Properties of Air
- Air Pressure (Uses)
- 6. Minerals
- Meaning of Mineral Resources
- Types and Sources of Minerals resources
- Importance of Mineral Resources
- Consequences of Over Exploitation of mineral resources on environment
- 7. Colours
- The Component of Light (Rainbow)
- Primary and Secondary Colours

- Mixing of Colours
- 8. Door Mat Making
- Materials for door mat making
- Drawing instruments
- Uses of drawing instruments
- 9. Introduction to Woodwork Hand tools
- Definition of hand tools
- The measuring tools
- The marking tools
- The cutting tools
- 10. Maintenance
- Definition of Maintenance
- Types of Maintenance
- Importance of Maintenance
- 11. Revision
- 12. Examination

CLASS: PRIMARY 6

PERIOD:

TIME: 40 MINUTES

TOPIC: THE HUMAN REPRODUCTIVE SYSTEM

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. Explain reproduction in man.
- 2. Identify male and female reproductive organs.
- 3. State the functions of the organs.

TEACHING AND LEARNING MATERIALS

- Whiteboard/Chalkboard
- Explanatory posters/pictures showing the human reproductive system
- Explanatory videos on human reproductive system

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: review of last term's work.

CONTENT

HUMAN REPRODUCTIVE SYSTEM

As human and living things we give birth to young ones. That is reproduction. There are organs in male and female that aid reproduction processes.

MALE REPRODUCTIVE SYSTEM

The male reproductive system consist of a penis. Vas deferens (Sperm duct), a pair of testes in a scrotal sac, urethra and some associated glands.

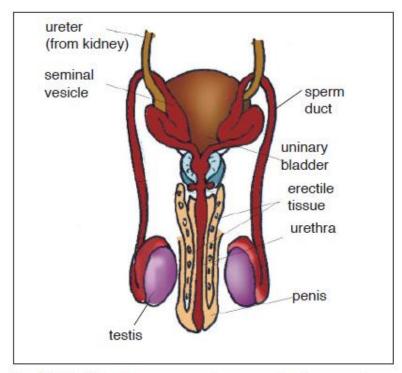


Fig. 2.11 The human male reproductive system

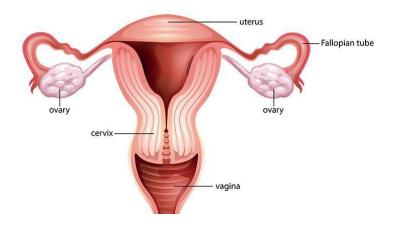
FUNCTIONS OF THE MALE REPRODUCTIVE SYSTEM

- 1. Testes produces sperm.
- 2. Urethra carries sperm within the penis into the female organs.
- 3. Scrotal sac protect testes.
- 4. Penis introduces sperm into the vagina.
- 5. Vas deferens transfer sperm from testes to seminal vesicle.

FEMALE REPRODUCTIVE SYSTEM

The female reproductive System

The female reproductive system consist of the Ovaries, Oviducts, Uterus and vagina.



FUNCTIONS OF THE FEMALE REPRODUCTIVE SYSTEM

- 1. Ovaries produces eggs.
- 2. Oviduct carries egg cells to the uterus.
- 3. Uterus receives and cares for developing foetus.
- 4. Vagina Outlet from the uterus or womb.

REPRODUCTION PROCESS

- 1. The male and the female comes together and have sex.
- 2. The male sex produces the male sperm (gametes) while the female sex produces the female egg cell (gametes or Ovum).
- 3. The sperm is introduced into the female sex organ where it fuses with the egg during fertilization.
- 4. The fusion produces a zygote, which develops into a new offspring inside the uterus of the female.
- 5. The zygote then develop to embryo.
- 6. After nine months the female will give birth to a baby.

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (**EARTH AND SKY MOVEMENT**).
- The Teacher introduces the lesson through question and answer (THE HUMAN REPRODUCTIVE SYSTEM).
- The Teacher explains the lessons.
- The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- What is reproduction?
- Mention three male and female reproductive organs each.
- State the functions of the organs.

CONCLUSION: the teacher summarize the lesson.

WEEK: WEEK 3

CLASS: PRIMARY 6

PERIOD:

TIME: 40 MINUTES

TOPIC: WATER PROJECT

Sub-topic(s)

- Examples of water projects in Nigeria.
- Benefit and Hazard of water project

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. Know various water projects in Nigeria
- 2. Benefit of water project in Nigeria.

TEACHING AND LEARNING MATERIALS

- Whiteboard/Chalkboard
- Explanatory posters/pictures showing woodwork hand tools.
- Explanatory videos on woodwork hand tools.

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: the students have been taught responsible parenthood.

CONTENT

WATER PROJECTS IN NIGERIA

Water includes rain water, oceans lakes, rivers, streams and underground water. Water projects in Nigeria are initiated by the state government, federal government and some Non –governmental organizations to make water more useful and suitable, and available for domestic, industrial and agricultural purposes.

VARIOUS WATER PROJECTS IN NIGERIA

- 1. Canals
- 2. Dams
- 3. Lake
- 4. Ports

CANALS

It is a narrow body of water which is controlled by human beings to connect two natural bodies of water.

SOME CANALS IN NIGERIA

- 1. Lagos canals: we have different canals in Lagos state. Some of the canals are: Alafia in orile, Ajegunle, Badia, surulere, national theatre, Ajegunle.
- 2. Kano canals like Hadedia

DAMS

A dam is a special wall built across a river or stream.

Dams in Nigeria

- 1. Kainji dam in kwara state.
- 2. Shiroro dam in Niger state.
- 3. Orji river dam in Enugu state.
- 4. Ero dam in Ekiti state.
- 5. Tiga dam in Niger state.

LAKE

Lake is a body of water surrounded by land. The water is usually fresh. In Nigeria, we have Bagauda lake in Kano state.

PORTS

Ports is a place where ship can load and unload people and goods.

PORTS IN NIGERIA

- 1. Apapa/tinca ports in Lagos state.
- 2. Portharcourt port in Rivers state.
- 3. Calabar sea port in cross –river state.

BENEFITS OF WATER PROJECTS IN NIGERIA

- 1. It provides employment.
- 2. It improves quality of life.
- 3. It reduces water scarcity.
- 4. It reduces erosion.
- 5. It increases agricultural products.
- 6. It serves agricultural purposes.
- 7. It reduces water borne diseases.
- 8. It generate electricity power
- 9. It is used for transportation

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (**RESPONSIBLE PARENTHOOD**).
- The teacher introduces the lesson through question and answer (WATER PROJECTS IN NIGERIA).
- The Teacher explains the lessons.
- The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- 1. What are hand tools?
- 2. State the groups of woodwork hand tools.
- 3. List marking tools in wood work
- 4. Mention three measuring tools.
- 5. List three cutting tools in wood work.

CONCLUSION: the teacher summarize the lesson.

WEEK: WEEK 5

CLASS: PRIMARY 6 TIME: 40 MINUTES

TOPIC: AIR Sub-topic(s)

- The meaning of Air.
- Properties of Air.
- Air pressure (uses)

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. Identify the common characteristics of air.
- 2. Demonstrate Air pressure on every object.
- 3. Explain why things move in air.
- 4. State the special features of things that move or float on air.
- 5. Mention instances of the application of air pressure to do work.
- 6. Demonstrate experiment to show that one fifth of air aid burning

TEACHING AND LEARNING MATERIALS

- Air
- Whiteboard/Chalkboard
- Explanatory posters/pictures showing Air
- Explanatory videos on Air

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: the students are familiar with water projects.

CONTENT

Air is a mixture of gases (especially oxygen) required for breathing. It is a colourless, odourless and tasteless mixture of gases. Air expands when heated.

PROPERTIES OF AIR

- 1. it has weight
- 2. it occupies space and
- 3. It is present everywhere.

PART OF AIR

AIR part consist of

- 1. Active air or Oxygen: Active air allows substance to burn. It is one fifth (20%) the volume of air.
- 2. Inactive air. It is about four fifth (80%) of air. It is more of Nitrogen.

PRESSURE

Pressure is the force applied to a unit area of surface; measured in pascals (SI unit) or in dynes (cgs unit).

WHY THINGS MOVE IN AIR (AIR AND PROPULSION)

Things moves around because of the pressure of the air. Like kite is a light object with large surface.so it is very easy to float with the pressure of air. Likewise also any light object with a large surface area can float easily with air pressure.

USES OF AIR PRESSURE

- 1. It enable aero plane to fly easily on air.
- 2. It helps in the propulsion of rocket.
- 3. It help human when using parachute to land safely from air.
- 4. It helps some birds to stay in the air.
- 5. It helps birds when flying.
- 6. Wind mill (Turbine generator) used the wind by air pressure to generate electricity.

Air aid burning because air contain energy when you blow air over match stick, and its flame is put out, it means the active air around it is not enough. The inactive air, which forms the greater part of air. it is the part that helped put out the flame.

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (WATER PROJECTS).
- The Teacher introduces the lesson through question and answer (AIR).
- The Teacher explains the lessons.

The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- Identify the common characteristics of air.
- Demonstrate Air pressure on every object.
- Explain why things move in the air.
- State the special features of things that move or float on air.
- Mention instances of the application of air pressure to do work.

CONCLUSION: the teacher summarize the lesson.

WEEK: WEEK 6

CLASS: PRIMARY 6

TIME: 40 MINUTES

TOPIC: MINERAL RESOURCES

Sub-topic(s)

- Meaning of mineral resources.
- Types and sources of mineral resources
- Importance of mineral resources

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. List the minerals resources found in Nigeria and where they can be located.
- 2. Identify mineral resources based on observation characteristics.
- 3. State the importance of mineral resources to Nigeria.
- 4. State the consequences of over exploitable of mineral resources on the environment.

TEACHING AND LEARNING MATERIALS

- Air
- Whiteboard/Chalkboard
- Explanatory posters/pictures showing Air
- Explanatory videos on Air

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: the students are familiar with.

CONTENT

Mineral resources are valuable substances which have been deposited naturally underneath the earth. They are removed from the earth by drilling and mining.

Almost all states in Nigeria have its own raw mineral resources.

TYPES OF MINERAL RESOURCES

- 1. Organic minerals: these are formed from living things.
- 2. Inorganic Minerals: these are formed from non living organisms.

FORMS OF MINERALS

When minerals are gotten they are their raw form, then they now refined through mining or drilling.

- 1. Solid Minerals: they are extracted from the earth through mining. They can be identified using colour, lustre, weight and shape. Like tin are gotten through mining. When solid minerals are in their raw form, they are referred to as 'Ore.'
- 2. Liquid minerals or gas: liquid minerals are exploited through drilling process from the earth and are separated into different product using fractional Distillation. Like crude oil can be separated into petrol, kerosene, diesel, etc.

REFINERIES IN NIGERIA

Nigeria have four refineries. Two are in Rivers state, one is in Delta state and another is in Kaduna state.

MINERALS SOURCES AND FORMATION

MINER

ALS SOURCE AND FORMATION

Lead Galena

Iron -Ore Hematite

Clay Rock

Crude oil Buried decayed plants, shells, animal and fossils under grea

t pressure below the earth.

Tin ore Cassiteries

coal Buried decayed plants, shells, animals and fossils under gre

at pressure below the Earth.

Common

salt Found in the sea

LOCATIONS OF MINERALS IN NIGERIA

Mineral locat

ion

State found in nigeria

Coal Enugu

Petroleum Bayelsa state, rivers state, akwa ibom state, Edo state, ondo tate, abia st

ate, Delta state.

Iron –ore Ajaokuta in Kogi state

Lime stone Ewekoro in ogun state, calabar in cross river state, Ukpilla in Edo stat

e.

Tin – Ore Jos in Plateau State

Mineral resources and its uses

s/ n	Mineral reso urces	Uses
	5. <u>_</u> 5.5.6	
1	Coal	For coal tar for road surfacing, heating, smelting, for industrial chemicals, etc.
2	Aluminum	Paint production, packaging of foil, pots, electric wires, roofing sh eets, building aircraft body, etc.
3	Iron	Animal trap, production of heavy materials, farm tools, nails etc.
4	copper	Electric wire, transformer in electronics gadgets, fan coils.
5	Crude oil	Fuel, engine oil, brake fluid, wax, jelly, bitumen for building roads.
6	Marble	Tiles production
7	Limestone	For making Cement

IMPORTANCE OF MINERAL RESOURCES TO NIGERIA

- 1. It provides jobs.
- 2. It brings about economic development.
- It bring about industrial development.
- Some medicines are obtained from minerals like liquid paraffin.
- Used in production of farm tool for agricultural purposes.
- It will bring foreign investors into the country.
- It brings about advancement in technology.
- It help in road construction
- Domestic use

CONSEQUENCES OF OVER – EXPLOITATION OF MINERAL

RESOURCES IN NIGERIA

- 1. **Pollution**
- 2. Extension of some animals.
- 3. Extension of some plants.
- 4. Conflict over ownership of minerals and sharing of royalties
- 5. Erosion
- 6. Desertification
- 7. Difficulty in agriculture
- 8. Unfriendly environment to human.

HOW TO CONTROL OVER – EXPLOITATION OF MINERAL

RESOURCES IN NIGERIA

- 1. There should be proper control of erosion.
- 2. There should be control and management of pollution
- 3. Formulation and implementation of environmental policies.
- 4. Control measures over gas flaring and oil spillage to protect our rivers and land.
- 5. Resource conservation

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (AIR).
- The teacher introduces the lesson through question and answer (MINERAL RESOURCES).
- The Teacher explains the lessons.
- The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- Define mineral resources
- List three minerals resources found in Nigeria and where they can be located.
- State three importance of mineral resources to Nigeria.
- State three consequences of over exploitable of mineral resources on the environment.

CONCLUSION: the teacher summarize the lesson.

WEEK: WEEK 7

CLASS: PRIMARY 6
TIME: 40 MINUTES
TOPIC: COLOURS

Sub-topic(s)

- The component of light (rainbow)
- Primary and secondary colours
- Mixing of colours.

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. Separate white light into the component colours.
- 2. Identify the name of the colours of light (rainbow)
- 3. Know and name objects that have characteristics of natural colours.
- 4. Collect and list materials that produce colours.
- 5. Sort primary and secondary colours from a collection of coloured plates.
- 6. Identify the characteristics of colours shades.
- 7. Mix primary and secondary colours and identify the shades of colours produced.

TEACHING AND LEARNING MATERIALS

- Bulb
- Kolanut
- Bitter leaf
- Clay soil
- Rose flower
- Whiteboard/Chalkboard
- Explanatory posters/pictures showing colours
- Explanatory videos on colours

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: the students are familiar with.

COMPONENTS OF WHITE LIGHT

Colours can give us in different emotion. It can make us to be happy, confuse, sad, angry,

The sun gives us natural light. The light is made up of seven colours. We also use of ROYGBIV to remember and name the colours of light.

The colours of light using ROYGBIV

The colours of light can also be called the spectrum of white light or rainbow colours.

- 1. $\mathbf{R} = \mathbf{Red}$
- 2. $\mathbf{O} = \mathbf{Orange}$
- 3. Y = Yellow
- 4. G = Green
- 5. $\mathbf{B} = \mathbf{Blue}$
- 6. I = Indigo
- 7. V = Violet

CLASSIFICATION OF COLOUR

We have two types of colours, these are:

- 1. Primary colours or natural colours: they are green, red and blue. Things with primary colours are biter leaf (green), pumpkin leaf (green), clay soil (reddis brown), Kolanut (redish brown), rose flower (red), hibiscus flower (red).
- 2. Secondary colours: it is gotten by mixing two primary colours. The process of producing secondary colour is called Additive colour mixing. Examples of secondary colours are magenta, cyanm yellow and orange.

Other colours are Tertiary colour.

PRODUCTION OF COLOURS FROM PRIMARY COLOURS

Red + Green = Yellow

Blue + Green = Cyan

Red + Blue = Magenta

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (MINERALS).
- The Teacher introduces the lesson through question and answer (**COLOURS**).
- The Teacher explains the lessons.
- The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- 1. mention the name of the colours of light (rainbow)
- 2. Mention the names objects that have characteristics of natural colours.
- 3. List materials that produce colours.
- 4. Mix primary and secondary colours and identify the shades of colours produced.

CONCLUSION: the teacher summarize the lesson.

WEEK: EIGHT

CLASS: PRIMARY 6 TIME: 40 MINUTES

TOPIC: DRAWING INSTRUMENT

SUB-TOPICS

• Definition of Drawing Instrument

• Identification of Drawing Instrument

• Care of Drawing instrument

PERFORMANCE OBJECTIVES

At the end of this Topic, Pupils should be able to:

- 1. Identify drawing instrument.
- 2. List five drawing instrument
- 3. State the use of drawing instruments and materials
- 4. state the uses of drawing instruments

TEACHING AND LEARNING MATERIALS



DRAWING INSTRUMENT

- Drawing board
- T-square
- Set-square
- Dividers
- Pairs of Compass
- Protractors
- Pencil
- Erasers
- Whiteboard/Chalkboard
- Explanatory posters/pictures
- Explanatory videos

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work.
- Online Materials.
- Basic Science and Technology for Primary Schools.

CONTENT

DEFINITION OF DRAWING INSTRUMENT

Drawing is a picture representation of an object or an idea.

Drawing instrument are materials we use for drawing

IDENTIFICATION OF DRAWING MATERIALS AND THEIR USES

- 1. Drawing Board used for sketching and drawing objects.
- 2. Tee- square used to draw horizontal line.
- 3. Ruler used to draw straight line.
- 4. Compass used to draw circle or arc
- 5. Set square used to draw vertical line.
- 6. Protractor used for measuring and drawing Angles.
- 7. Pencil –used for drawing.
- 8. Drawing Paper.
- 9. Crayon –for colouring.
- 10.Eraser used to clean mistakes when drawing.

CARE FOR DRAWING INSTRUMENT

- 1. Keep your work space clean
- 2. Use a paint brush to remove colour residue after sharpening a pencil.
- 3. Clean your eraser by robing it with cotton cloth or washing it with soapy water.
- 4. Always return the instrument to the right place after use.
- 5. Carry your drawing instrument caution.

PRESENTATION

- The Teacher revises the previous lesson.
- The Teacher introduces the topic.
- The Teacher explains the lessons.

LESSON EVALUATION

Learners are asked:

- Define drawing.
- What are drawing instrument.
- List five drawing instrument and their uses.
- Identify drawing instrument on the table.

• Draw a circle and a straight line using the right drawing instrument.

CONCLUSION: the teacher summarize the lesson.

ASSIGNMENT

- 1. List ten Drawing instrument.
- 2. List three drawing instrument used in school.
- 3. Mention three drawing instruments in a mathematical set.
- 4. Use your pencil and ruler to draw a triangle and a rectangle.

WEEK: WEEK 9

CLASS: PRIMARY 6 TIME: 40 MINUTES

TOPIC: INTRODUCTION TO WOODWORK HAND TOOLS

Sub-topic(s)

- Definition of hand tools
- The measuring tools
- The marking tools
- The cutting tools

PERFORMANCE OBJECTIVES

At the end of this lesson, Pupils should be able to:

- 1. Explain what hand tools are.
- 2. State the groups of woodwork hand tools.
- 3. List marking tools in wood work
- 4. Identify measuring tools.
- 5. List three cutting tools in wood work.

TEACHING AND LEARNING MATERIALS

- Steel Ruler
- file
- Tape rule
- Pencil
- Marking knife
- Whiteboard/Chalkboard

- Explanatory posters/pictures showing woodwork hand tools.
- Explanatory videos on woodwork hand tools.

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work for Basic Science and Technology.
- Basic Science and Technology for Primary Schools.

ENTRY BEHAVIOUR/ PREVIOUS KNOWLEDGE: the students are familiar with Door Mat Making.

CONTENT

Hand tools are tools that are held with the hands when working with them.

Wood work hand tools are used to work on wood.

TYPES OF WOODWORK TOOLS

- 1. Geometrical tools
- 2. Holding and supporting tools.
- 3. Cutting tools
- 4. Percussion tools

GEOMERTICAL TOOLS

Geometrical tools are divided into two groups. They are: measuring tools and marking tools.

Measuring tools: they are used to take dimensions like measurement of length, breadth and thickness of wood.

Measuring tools are

- 1. Tape rule
- 2. Folding out rule
- 3. Steel rule

MARKING OUT TOOLS

These are tools that can be used to mark or make a point on a piece of wood.

Examples of marking out tools are

- 1. Pencil
- 2. Marking knife
- 3. Try square
- 4. Sliding bevel

- 5. Mortise gauge
- 6. Metre square
- 7. Wind compasses
- 8. Marking knife
- 9. Marking gauge

HOLDING AND SUPPORTING TOOLS

They are used to hold job while working on it. These are:

- 1. G clamp
- 2. Hand screw
- 3. F clamp
- 4. Ratchet brace
- 5. Sash clamp
- 6. Bench vice
- 7. Bench hook
- 8. Metal vice
- 9. Joiners sash clamp

CUTTING TOOLS

Cutting tools are tools that can be used in cutting pieces of wood. They are used in reducing timber or wood to the required sizes and shapes.

EXAMPLES OF CUTTING TOOLS

- 1. **Huger bit**
- 2. Chisel
- 3. Coping saw
- 4. File
- 5. Jack plane
- 6. Fret saw
- 7. Rip saw
- 8. Dovetail saw
- 9. Tenor saw
- 10.Jack pane
- 11.Twist bit
- 12. Firmer chisel
- **13.Bow saw**
- 14.**Hand saw**

PERCUSSION TOOLS

Percussion tools are tools used to drive or remove nails and screws from wood. They are also used to assemble and dismantle jobs.

Examples of percussion Tools

- 1. Hammer
- 2. Spanner
- 3. Nail punch
- 4. Mallet
- 5. Screw drivers

INSTRUCTIONAL PROCEDURE

- The Teacher revises the previous lesson (DOOR MAT MAKING).
- The Teacher introduces the lesson through question and answer (INTRODUCTION TO WOODWORK HAND TOOLS).
- The Teacher explains the lessons.
- The Teacher write the note on the board.

LEARNERS ACTIVITIES

Learners participate in the class discussion

LESSON EVALUATION

Teacher ask the learners to:

- 1. What are hand tools?
- 2. State the groups of woodwork hand tools.
- 3. List marking tools in wood work
- 4. Mention three measuring tools.
- 5. List three cutting tools in wood work.

CONCLUSION: the teacher summarize the lesson.

WEEK: 10

CLASS: PRIMARY 5
TIME: 40 MINUTES

TOPIC: MAINTENANCE

UNITS:

- Meaning of Maintenance
- Importance of Maintenance
- Some ways of Maintenance and Materials Needed

PERFORMANCE OBJECTIVES

At the end of this Topic, Pupils should be able to:

- 1. Explain the Meaning of Maintenance.
- 2. List the type f maintenance
- 3. state the need for maintenance

LEARNING MATERIALS

- Detergent
- Duster
- Cello tape
- Tester
- Soap
- Gum
- Whiteboard/Chalkboard
- Explanatory posters/pictures
- Explanatory videos

REFERENCE MATERIALS

- NERDC Basic Education Curriculum for primary schools.
- Universal Basic Education Curriculum for primary schools.
- Lagos State Scheme of Work.
- Basic Science and Technology for Primary Schools.

CONTENT

MAINTENANCE

Maintenance is the way we take care of our things in order to serve us longer. Such things must be done properly and at all times. Like cleaning our belongings, oiling our bicycle, painting our houses, wrapping of books with paper.

TYPES OF MAINTENANCE

- 1. **Preventive Maintenance:** they are carried out to prevent breaking down of equipment e.g. cleaning, washing, dusting, lubricating, servicing.
- 2. **Corrective Maintenance:** they are carried out to replace or repair a brokendown equipment. Repair of car in the mechanic workshop.

IMPORTANCE OF MAINTENANCE

- 1. It makes our properties last longer
- 2. It helps in making our equipment work properly
- 3. It help in preventing accidents

- 4. It make our equipment beautiful
- 5. It prevent breakdowns
- 6. It prevent delays

SOME WAYS OF MAINTENANCE

- OILING
- CLEANING
- STITCHING
- REMOVAL OF COBWEBS
- WASHING
- REPAINTING
- WELDING
- DUSTING
- GUMMING

SOME MATERIALS USED FOR MAINTENANCE

- Detergent
- Gum
- Duster
- Rags
- Oil
- Scrubbing brush
- Tester
- Water
- Screw drivers

PRESENTATION

- The Teacher revises the previous lesson.
- The Teacher introduces the topic.
- The Teacher explains the lessons.

LESSON EVALUATION

- What is Maintenance?
- List three types of maintenance
- State why maintenance is necessary.

$\label{lem:conclusion:conclusion} \textbf{CONCLUSION: the teacher summarize the lesson.}$

ASSIGNMENT

- 1. List three house-hold items that can be maintained.
- 2. List three school items that can be explained.
- 3. State three ways of maintaining household items.