FADHL COLLEGE

SCHEME OF WORK

LEVEL: YEAR ONE

SUBJECT: BASIC TECHNOLOGY

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| WEEKS | FIRST TERM | SECOND TERM | THIRD TERM |
| 1 | **CONCEPT OF TECHNOLOGY**INTRODUCTION: Simple introduction to Technology, meaning of Technology.APPLICATION OF TECHNOLOGY* Life application of Technology
* Products of Technology
* Benefits of Technology
* Developed and underdeveloped Technology
 | **WOODWORK HANDTOOLS.*** Measuring Tools
* Marking out tools
* Boring tools
* Holding devices
* Cutting tools
 | **COMPUTERS*** Definition of terms
* Common examples of computers
* Grades of Computers
* Input Devices
* Output Devices
* Computer memory
 |
| 2 | **TECHNOLOGY AND SOCIETY:*** Modern day tools as used in day to day activities.
* Careers in Technology
* Technological literacy
 | **CONCEPT OF ENERGY AND POWER:*** Concept of power and energy
* Definition of power, energy and units.
* Forms of Energy .
 | **ANGLES*** Definition and types of angles
* Bisection of angles
* Construction of angles
 |
| 3 | SAFETY:* Meaning and causes of workshop accidents/hazards
* Accidents prevention and Techniques
* Safety Devices
 | BASIC ELECTRONIC DEVICES:* Basic emission theory.
* Simple thermionic emission
* Primary emission
* Cold cathode
 | CIRCLES* Meaning of a circle
* Parts of a circle
* Division of Circles

Construction of tangent to a given circle |
| 45 | FIRST AID AND MATERIALS* Definition of first aid
* Application of simple first aid
* The composition of a first aid box and the uses.
* Rescue operations

PROPERTIES OF MATERIALS:* Materials used in Technology

(i) Wood(ii) Metals(iii)Ceramics, plastics, rubber and glass | ELECTRONIC COMPONENTS* Semiconductors
* Resistors
* Capacitors
* Transistors

BUILDINGS* Types of Buildings
* Common building materials
* Architectural symbols

  | TRIANGLES* Meaning
* Classification of Triangles according to angles
* Classification according to sides
* Construction of triangles

Drawing a circumscribed circle in a given triangle |
| 6 8.  | PROPERTIES OF MATERIALS (Cont)* Uses and properties of the materials

BUILDING MATERIALS* Definition of building
* Basic materials used in technology to construct a building.
* Uses of common building materials
 | SIMPLE BLUEPRINT READING* Components of a simple domestic building.
* Orthographic projection
* Isometric projection
* Axonometric projection

CONCEPT OF MAINTENANCE:* Definition of maintenance
* Importance of maintenance
* Tools for maintenance

Types of maintenance  | QUADRILATERALS AND POLYGONS* Definition of quadrilaterals
* Construction of quadrilaterals

WOODWORK MACHINES* Common woodwork machines
* Steps in using some of the woodwork machines
* Safety precautions in using woodwork machines
* Major parts of some woodwork machines
* Care and maintenance
 |
|  9.10 | DRAWING INSTRUMENT* Meaning of drawing
* D\Examples of drawing instruments
* Uses of drawing instruments

DRAWING INSTRUMENTS (Cont)* Practical ways of using drawing instruments
 | INFORMATION AND COMMUNICATIONS TECHNOLOGY(ICT)* Analog and digital communication systems
* Meaning and nature of ICT process
* Meaning of internet and its process
* Merits and demerits of the internet

ICT (cont)* G.S.M transmission process
* The Internet process
 | METAL WORK MACHINES* Common metalwork machines
* Steps in using some of the metalwork machines
* Safety precautions in using metalwork machines
* Major parts of some metalwork machines

BELT AND CHAIN DRIVES* Friction and its application
* Advantages and disadvantages of friction
* Lubricant and its uses
* Belt and chain drives
* Types of belts and pulleys
 |
| 11. | GENERAL REVISION |  GENERAL REVISION | GENERAL REVISION |

FADHL COLLEGE

SCHEME OF WORK

LEVEL: YEAR 2

SUBJECT: BASIC TECH

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| WEEKS | FIRST TERM | SECOND TERM | THIRD TERM |
| 1. | MATERIALS AND THEIR COMMON USES(WOOD AND METAL)* The common uses of wood
* The common uses of metals
* Alloys of metals
 | BELT AND CHAIN DRIVES* Friction and its application
* Advantages and disadvantages of friction
* Lubricant and its uses
* Belt and chain drives
* Types of belts and pulleys
 | SCALE AND SCALE DRAWING* Introduction
* The metric ruler
* Types and uses of scales
 |
| 2. | MATERIALS AND THEIR COMMON USES (Cont.)* The common uses of ceramics
* The common uses of Glass
* The common uses of Plastic and rubber
 | HYDRAULIC AND PNEUMATIC MACHINES* Definition of hydraulic and pneumatic machines
* Effects of air motion around an object
* The principles of flight
* Examples of hydraulic and pneumatic devices
 | PLAN AND BLUEPRINT* Meaning of blueprints
* Drawing as a language
* Parts of a simple building
 |
| 3. | LINES * Lines and their types
* Uses of lines
* Bisection of lines
* How to divide a given line into a given proportion
 |  GEARS* Types of gears
* Uses of gears
* The speed of rotation in gears
 | SIMPLE WOODWORK PROJECTS* Woodwork joints and their properties
* Adhesives and abrasives
 |
| 4. | ANGLES* Definition of different types of angles(acute, obtuse, reflex, complementary, supplementary angles)
* Bisection of angles
 | PROCESSING OF MATERIALS* Wood and Metals
1. Timber production and processing (Seasoning, preservation, Defects)
2. Metal extraction and processing
 | SOLDERING* Meaning of soldering and brazing
* Types of soldering
* Tools and materials needed for soldering
 |
| 5 | GEOMETRIC CONSTRUCTION* Meaning and types of a circle
* Division of circle into equal parts
* Tangents and normals
 | PROCESSING OF MATERIALS* Clay
* Ceramics
* Glass
* Plastics
* Rubber
 | BRAZING* Meaning of brazing
* Values of brazing
* Safety precautions during brazing
 |
| 6. | PLANE FIGURES* Definition and examples of plane figures
* Construction of quadrilaterals
* Areas of regular plane figures
 | ISOMETRIC DRAWING* Meaning of isometric drawing
* Uses and application of isometric drawing
 | MOTION* Definition
* Types of motion
* Application of motion in Technology
 |
| 8. | POLYGONS | OBLIQUE DRAWING* Meaning of oblique drawing
* Uses and application of oblique drawing
 | CONVERSION OF MOTION IN COMMON MACHINES AND APPLIANCES |
| 9. | WOODWORK MACHINES* Common woodwork machines
* Steps in using some of the woodwork machines
* Safety precautions in using woodwork machines
* Major parts of some woodwork machines
* Care and maintenance
 | PERSPECTIVE DRAWING* Meaning and types of perspective drawing
* Applications of perspective drawing
 | FAULT DETECTION* Meaning of systems
* Processes of fault detection
 |
| 10. | METAL WORK MACHINES* Common metalwork machines
* Steps in using some of the metalwork machines
* Safety precautions in using metalwork machines
* Major parts of some metalwork machines
 | ORTHOGRAPHIC PROJECTION * The projection planes
* Principal planes of projection
* Angles of projection
 | PERIODIC MAINTENANCE* Meaning
* Types
* Importance of periodic maintenance
 |
| 11 | GENERAL REVISION | GENERAL REVISION | GENERAL REVISION |