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 |
| 4  5 | 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 |