

# BST Basic Technology

Making Learning Fun!



**Nigerian Educational Research and Development Council**

**(NERDC):**

**UNIFIED SCHEMES OF WORK FOR JUNIOR SECONDARY SCHOOL**

**(JSS TWO)**

## **BST(BASIC TECHNOLOGY) JSS 2 TOPIC/THEMES**

### **1<sup>st</sup> Term**

#### **1. FIRST AID**

- Meaning and Materials
  - Application of simple first aid
  - ABC of first aid
  - Bleeding and breaks circulation (Pulses)
  - Application of ABC of first aids.
- Objectives: -to explain the meaning of first aid  
-identify the contents of First Aid box.  
-apply first aid measures  
-discuss the ABC of first aid to: i. victims of workshop accident ii. road accident victims  
video clips of ABC first aids.

#### **2. RESCUE OPERATIONS**

- Meaning of rescue operations
  - different aspects of rescue operations (e.g. securing the environment, vehicle and victims
  - steps involved in rescue operations.
- Objectives: should be able to:

- explain the meaning of rescue operations
- identify different aspects of rescue operation
- describe the steps involved in each aspect of rescue operation.

### **3. MATERIALS AND THEIR COMMON USES**

- Wood (Furniture, building construction, handles of implements, etc

### **4. USES OF METAL**

- Metals-household
- Utensils, vehicles and ship parts

Objectives: students should be able to explain the uses of ferrous and non-ferrous metals and their alloys...

Images like articles of metals and metal alloys.

### **5. USES OF BRASS AND BRONZE**

- Brass –Decoration, ammunition, etc.
- Bronze- carving statues and ornament, etc.

Objectives: should be able to state the common uses of brass and bronze.

Images like articles made of brass and bronze.

### **6. USES OF CERAMICS AND GLASS**

- Tiles, household utensils

Objectives: should be able to state common uses of tiles and ceramics

images: ARTICLES made of ceramics and glass

### **7 & 8. USES OF RUBBER AND PLASTICS**

Tyres, tubes, foot wears, etc.

- plastic buckets and bottles. (articles of rubber and plastics)

### **9. GEOMETRIC CONSTRUCTION**

- Circles-parts of a circle

### **10. CIRCLES**

- Dividing Circles into a number of parts using set-squares and compasses.

### **11 & 12. REVISION AND EXAMINATION.**

## **2<sup>ND</sup> TERM**

### **1. REVISION OF LAST TERM WORK/POLYGONS**

- Definition of polygon
- Definition of regular and irregular polygon

### **2. PENTAGON**

Pentagon, Hexagon, Heptagon, Octagon Using general and specific methods.

### **3. PLANE FIGURES, QUADRILATERAL (Rectangle and Square)**

Examples of plane figures  
Rectangle, Square and parallelogram.

### **4. PLANE FIGURE: PARALLELOGRAM**

Enlargement and Reduction of plane figures.  
Triangle, Rectangle, Square to a given i. radius by-length of sides ii. radial line method.

### **5. WOODWORK MACHINES I**

- Types and uses of machines
- Portable power tools (belt sander, hand drill, fret saw,
- Machines-circular saw, band saw, wood lathe, surface planner, sander drill, etc.

### **6. WOODWORK MACHINES II**

- Functions of the different machines
  - Care and maintenance of woodwork machines
- Objectives: students should be able to carry out simple operations-cutting and boring with machines.

### **7. & 8. REVIEW ON GOEMETRIC CONSTRUCTION (CIRCLES) AND WOODWORK MACHINES**

- Functions of the different types of machines
- Care and maintenance of woodwork machines.

### **9.METALWORK MACHINES**

- Types of metalwork machines
  - Functions of the different types of machines.
- Objectives: students should be able to :
- identify the various metalwork machines.
  - state the uses of the metalwork machines

## **10. CARE AND MAINTENANCE OF METALWORK MACHINES**

Objectives: students should be able to carry out simple operations like cutting, and drilling. Using workshop overall.

## **11. & 12. REVISION AND EXAMINATION.**

## **3<sup>RD</sup> TERM**

### **1. REVISION OF LAST TERM. BELT AND CHAIN DRIVES**

-Examples Of Belt And Chain Drives.

Objectives: students should be able to describe belt and chain drives

Images like motor driven pepper grinder, motor fan belt, sawing machine, etc.

### **2. BELT AND CHAIN DRIVES**

-Applications Of Belt And Chain Drives

-Students should be able to explain the principles of belt and chain drives.

Images like bicycle and motorcycle chain drives.

### **3. BELT AND CHAIN DRIVES**

Advantages And Disadvantages.

Objectives: students should be able to mention the advantages and disadvantages of belt and chain drive machines.

Images of belt and chain drive machines

### **4. HYDRAULIC AND PNEUMATIC MACHINES (I)**

-Examples of Hydraulic and Pneumatic devices

-Components of the machines.

Objectives: students should be able to:

-identify hydraulic and pneumatic machines

-name the component of each machine.

Images like force pump, double acting pumps, centrifugal.

### **5. HYDRAULIC AND PNEUMATIC MACHINE (II)**

-Operations

-Objectives: students should be able to explain the principles behind the working of pneumatic devices.

Images: pumps, hydraulic jacks, simple garden sprinkler, reaction turbine, water wheels.

### **6.HYDRAULIC AND PNEUMATIC MACHINES (III)**

-Uses and working principles.

Objectives: students should be able to state the uses of machines.

### **7 & 8. GEARS**

-Types of gears, Internal gears, external gears and bevel gears.

- Uses of gears

- Power transmission

-Changing direction

- Selecting speed

Objectives: students should be able to state the uses of gears in a mechanical system.

### **9.GEARS**

- Gear Ratio and Speed of Rotation

- Functions of Lubricants in gears

Objectives: students should be able to:

-Determine gear ratios

-Describe the relationship between gear ratio and speed of rotation.

### **10. GEARS**

- Construction and uses of Gears

Objectives: students should be able to construct gears and use gears.

### **11 & 12. REVISION AND EXAMINATION.**

**[TO OBTAIN THE COMPLETE TEXTBOOK AND THE FULL VIDEOS, CLICK HERE](#)**