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

1st 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 din 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.

2ND 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.

3RD 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.