

NATIONAL EXAMINATIONS COUNCIL  
(NECO)

BASIC EDUCATION CERTIFICATE  
EXAMINATION  
(BECE)

**SYLLABUS**

FOR CANDIDATES IN UPPER BASIC  
(JSS1-3) IN NIGERIA UNDER THE  
UNIVERSAL BASIC EDUCATION (UBE)  
PROGRAMME.

***BECE***

***SECOND EDITION***

# **BASIC TECHNOLOGY**

## **JSS ONE**

### **1. UNDERSTANDING TECHNOLOGY**

- a. Technology related professions
- b. Importance of technological literacy

### **2. SAFETY GUIDELINES**

- a. Safety guidelines for pedestrians
- b. Safety guidelines for cyclists/motor cyclists
- c. Safety guidelines for motorists

### **3. WORKSHOP SAFETY**

- a. Causes of workshop accidents
- b. Types of workshop accidents
- c. Workshop safety devices
- d. Workshop safety rules and regulations
- e. Accident prevention techniques

### **4. PROPERTIES OF MATERIALS**

#### **a. Wood**

- I. Identification by colour: mahogany, afara, obeche, opepe, masonia, etc.
- II. Classification: hardwood and softwood
- III. Properties

#### **b. Metals**

- I. Identification by physical properties, sound, malleability, ductility, etc.
- II. Classification: ferrous and non-ferrous metals with examples
- III. Forms, e.g., rods, pipes, wires, plates, sheets, etc.

#### **c. Ceramics and Glass**

- I. Types, bricks, tiles, bottles, cups, etc.
- II. Properties: brittle, heat resistant, etc.

### **5. BUILDING MATERIALS**

- a. Common building materials: cement, sand, gravel, metal, plastics, wood, glass, leaves, ceramics, grass, etc.
- b. Uses of building materials

## **6. DRAWING INSTRUMENTS AND MATERIALS**

- a. Drawing instruments and materials: Tee-square, set square, pair of compasses, French curves, etc.
- b. Basic techniques of handling drawing instruments and materials
- c. Uses of drawing instruments and materials
- d. Care of drawing instruments and materials

## **7. BOARD PRACTICE**

### **a) Basic board practice:**

- I. Setting drawing paper on the board
- II. Sharpening pencil to conical point and knife edge
- III. Using the tee and set squares for drawing boarder, horizontal and vertical lines
- IV. Positioning and drawing the title block, free hand writing of letters and numerals

## **8. FREE HAND SKETCHING**

- a. Basic freehand sketching techniques of drawing lines curves, circles and irregular shapes

## **9. WOOD WORK HAND TOOLS**

- a) Measuring tools
- b) Setting and marking out tools
- c) Driving tools, e.g., hammer, screw driver, mallet, etc.
- d) Boring tools, e.g., ratchet brace bradawl, etc.
- e) Holding devices
- f) Cutting and pairing tools
- g) Care and maintenance of wood work hand tools

## **10.METAL WORK HAND TOOLS**

- a) Marking out tools: surface plate, scribe odd-leg caliper, etc.
- b) Measuring tools and gauges: steel rule, protractors, etc.
- c) Driving tools: hammer, screw drivers, spanners, etc.
- d) Cutting tools: chisels, files, etc.
- e) Care and maintenance of metal work tools

## **11.MAINTENANCE OF TOOLS AND MACHINES**

- a. Meaning of maintenance
- b. Types of maintenance practices:
  - i. Preventive

- ii. Corrective
  - iii. Predictive
- c. Importance of maintenance