Form One

1.0.0 INTRODUCTION TO COMPUTERS (18 Lessons)

1.1.0 Specific Objectives
By the end of the topic, the learner should be able to:
a) define a computer
b) state the different parts of a computer
c) explain how computers have developed
d) classify the various types of computers
e) identify areas where computers are used
f) define a computer laboratory
g) state the safety precautions and practices in a computer laboratory
h) demonstrate basic hands-on skills on the use of a computer.

1.2.0 Content

1.2.1 Definition of a computer
1.2.2 Parts of computer
1.2.3 Development of computers
1.2.4 Classification of computers
- Physical size
- Functionality
- Purpose
1.2.5 Areas where computers are used

1.2.6 Definition of a computer laboratory

1.2.7 Safety precautions and practices in a Computer laboratory
- Behaviour
- Handing of materials and equipment
- Fire
- Cabling
- Stable power supply
- Burglar proofing
- Ventilation
- Lab layout
- Dust/damp control
- Lighting
- Standard furniture

1.2.8 Hands-on skills
- Start-up, restarting and shut-down(booting)
- Keyboard layout
- Practical Keyboard and mouse skills

2.0.0 COMPUTER SYSTEMS (49 lessons)

2.1.0 Specific objectives
By the end of the topic, the learner should be able to:
a) describe a computer system
b) explain the functional organization of the elements of a Computer system
c) describe input devices of a computer system
d) describe the central processing unit (CPU)
e) describe the output devices of a computer system
f) describe the output devices of a computer system
g) distinguish between power and interface cable
h) explain basic computer set-up and cabling
i) describe the types of secondary storage devices and media
j) distinguish between system software and application software
k) evaluate the criteria for selecting a computer system.

2.2.0 Content

2.2.0 Description of a Computer system

2.2.2 Functional organization of the elements of a Computer System.
- Hard ware
- Software
- Live-ware

2.2.3 Input devices e.g.
- Keying devices
- Pointing devices
- Scanning devices
- Speech recognition devices
- Other digital devices

2.2.4 Central Processing Unit (CPU)
- Control Unit
- Arithmetic and Logic Unit (A.L.U)
- Memory
- Processors
  a. types
  b. clock speeds

2.2.5 Output Devices
- Soft copy output devices e.g.
i) Visual display unit - Liquid Crystal Display (LCD, flat panel, cathode ray tube (CRT)
ii) Sound output
iii) Light emitting diodes (LED)
- Hard copy output devices e.g.
  a. Printers (impact, non-impact)
  b. Plotters

2.2.6 Secondary/auxiliary Storage Devices and Media
  a. Fixed - e.g. Hard disk
  b. Removable e.g.
  i) floppy disks
  ii) tape
  iii) optical disks (CD-R, WORM, CD-RW,DVDs)

2.2.7 Power and interface Cables
- Power Cable
- Parallel cable
- Serial cable

2.2.8 Basic computer set-up and Cabling
- Connecting basic computer components
- Connecting other computer peripherals

2.2.9 Classification of software
a) System software
- firmware
- networking software
- operating system
- utilities
b) Application software
- Acquisition
  a. Standard software (Off the shelf)
  b. User developed (in-house)

2.2.10 Criteria for selecting a Computer system (specifications)
Hardware Considerations
- processor speed
- memory capacity
- warranty
- user needs
- cost
- portability
- other considerations

Software considerations
- Authenticity
- User needs
- User friendliness