Computer Studies

Student Demographic: Forms A-E
Syllabus & Curriculum
One class session per week

Unit 1 – Getting to know the Personal Computer

- Week 1 – Introduction to computer studies
  Objective: To instill an understanding of the various basic components that make up a computer and what their purpose is. Learners will be able to identify said components by both description and by illustration.
    - Icebreakers and introduction to computers.
        - What is a computer? – An electronic tool used to assist humans in the areas of computational technology
        - What are they used for? Business, research, and education
        - Why are they important? The modern world relies on computers. Lesotho must not get left behind
    - Brief history on computing technology
        - Calculators – the first "personal" computer
        - Initially developed to solve complex math problems (ex: Moon landing)
    - What is a component? "Part connected to the computer"
- Week 2 – Introduction to basic components: "What you see" (Use illustrations/props)
    - Monitor (also known as "Screen") – used for viewing information sent from CPU
    - Keyboard – used for typing
    - Mouse – used for moving the pointer and clicking
    - Computer Case – used to store components
    - Difference between Laptop, Desktop, and Mobile
- Week 3 – Introduction to internal components (most critical)
    - Begin with reviewing Monitor, Keyboard, Mouse, and Computer Case
    - CPU – Central Processing Unit "The brain- used for thinking"
    - Hard Drive – used to store information "The memory- used to remember"
    - Distinguish the difference between internal/external components. "If you can see it, it's external"
    - Review difference between Laptop, Desktop, Mobile
- Week 4 – Review
    - Review covered material: Definition of component, 6 components discussed, difference between internal/external components, identifying components from a picture/illustration
- Week 5/6 – 2nd review (if necessary) and *Unit 1 Test*

Unit 2 – Learning how to use a Personal Computer

*Objective:*Unit 1 was all about *understanding* the components of a computer. Unit 2 and beyond is about learning *how to use* the components.

- Week 1 –Introduction to input devices
  - *Typing*
    - Basic functions of a keyboard; text and numerical input
    - Home Keys (Left hand-F, Right hand-J)
    - "The right way and the wrong way" – in regards to typing style. Home keys must be stressed. "Chicken pecking" is the wrong way
    - Spacebar, used for spaces. Backspace, used to delete
    - Shift vs. CAPS Lock – We use Shift to capitalize
  - *Mouse*
    - Used for moving the pointer and for clicking
    - Left Click: used for selecting
    - Right Click: used for options (Introduce Copy and Paste)
    - Double Click: used to open programs
- Week 2
  - Review keyboard/mouse functions
  - Discuss other uses of the keyboard
- Week 3 – Storage Memory
  - Introduce file size
    - Describe what a file is
    - 1 Byte = 8 bits, 1 Kilobyte = 1,024 bytes, 1 Megabyte = 1,024 Kilobytes, 1 Gigabyte = 1,024 Megabytes, 1 Terabyte = 1,024 Gigabytes, etc.
    - Why is memory important?
  - Storage Devices
    - Difference between mechanical hard drives and flash memory
- Week 4
  - Review previous Unit 2 material
  - Introduce the internet
    - Start with Local Area Networks (LANs)
    - Explain how the internet is a big connection of computers
    - Cellular Data – using wireless to access this big connection
- Week 5

Unit 3 – The Operating System

Objective: To gain an understanding of the purpose of the operating system, how the user interacts with it, and how various operating systems differ in their application and use

- Week 1

- Week 2