

Core Components:

- **Hardware:**

The physical components of a computer, such as the Central Processing Unit (CPU), memory (RAM), storage devices, input devices (keyboard, mouse), and output devices (monitor, printer).

- **Software:**

The set of instructions (programs) that tell the hardware what to do.

- **Operating System:**

Manages the computer's resources and provides a platform for running software.

- **Networking:**

Understanding how computers connect and communicate with each other, including the internet.

- **Data Representation:**

How information is stored and processed in a computer using binary code (0s and 1s).

- **Algorithms and Logic:**

Understanding the steps involved in solving problems using logical thinking and algorithms.

Key Concepts:

- **Input/Output:** The process of receiving data and presenting results.
- **Memory:** Temporary and permanent storage of data.
- **Processing:** How the CPU executes instructions and manipulates data.
- **Networking:** Connecting devices to share resources and information.

Why are computer fundamentals important?

- **Digital Literacy:** Provides a foundation for understanding and using technology effectively in various aspects of life.
- **Problem-Solving:** Develops logical thinking and problem-solving skills.
- **Career Opportunities:** Essential for many jobs, especially in the IT field.
- **Online Safety:** Understanding online safety practices and protecting personal information.