

Component 1: Hardware

Key terms

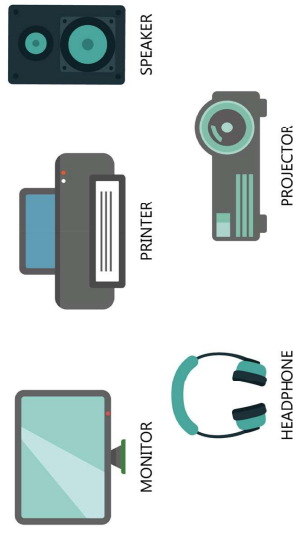
Term	Definition
Input	Data is sent to the computer system using a device.
Output	Data is received from the computer system using a device.
Virtual memory	Data that appears to be stored in main memory, but some of it is actually held in secondary storage. Data is transferred between the two automatically as required.
Volatile	Stored data is lost when the power is interrupted or switched off.
Permanent	Stored data is kept when the power is interrupted or switched off.

Input and output devices

INPUT DEVICES



OUTPUT DEVICES



Primary storage

Summary of the different types of memory:

Type	Cache memory	Read-only Memory (ROM)	Random Access Memory (RAM)	Flash memory	Virtual Memory
Volatile or permanent	Volatile	Permanent	Volatile	Permanent	Volatile
Data can be changed	✓	✓	✓	✓	✓
Relative speed	★★★★★	★★★★★	★★★	★★	★
Example use	The temporary storage of frequently accessed data and instructions.	Storing programs such as the system BIOS.	Storing currently running programs and data.	Storing the programs such as the system BIOS.	Compensates for a main memory shortage by temporarily storing data in secondary storage.

Additional hardware components

Graphics Processing Unit (GPU)	Sound cards	Motherboards
Integrated GPU <ul style="list-style-type: none"> Uses the computer's RAM Cheaper than installing a dedicated GPU Generates less heat and uses less power Perfect for general graphics processing such as watching or editing videos and word processing. 	Dedicated GPU <ul style="list-style-type: none"> Has its own video memory Provides the best visual experience Used by people such as professional graphic designers and serious gamers Uses more power and require a good cooling system. 	<ul style="list-style-type: none"> The sound card will convert analogue input signals into digital data and reverse this process for output. The motherboard is the main circuit board of the computer.