

Theme 2 Knowledge Organiser

Input & Output

An **input** device is a component that sends a signal **into** a computer.

Examples: game controller, microphone, keyboard, barcode scanner

An **output** device is a component that receives a signal **from** a computer.

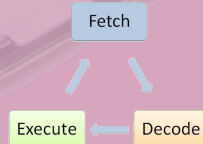
Examples: monitor, speaker, projector.

CPU (Central Processing Unit)

Input (We use our input devices to send instructions **into** the computer.)

Process (Our CPU then processes (carries out) the instruction.)

Output (The result is sent out of the computer to our output device (for us to then see).)



Main memory: ROM & RAM

ROM = Read Only Memory. Small amount of memory (1-2mb), is non-volatile.

Contains: Firmware - bootstrap loader to load operating system. Checks hardware is installed correctly

RAM = Random Access Memory. Much larger amount of memory (4-16GB), is volatile.

Holds programs that are running & instructions that are currently being executed.

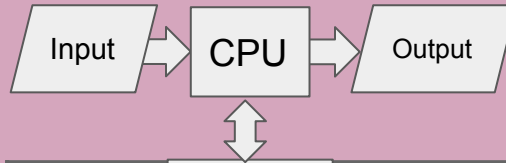
System software (OS)

eg. Windows 10, iOS, Android

Controls: Processor(s), Memory, Input/output devices, Applications, Security - patches

Application software

Application software is programs written to carry out a specific task or set of tasks, for example: word processors, spreadsheets, accounting packages, media players and games.



Secondary Storage

Magnetic storage

Example: Hard Disk Drive (HDD)

Flash storage

Example: Solid State Drives (SSDs), USB memory sticks, SD cards & micro SD cards

Optical storage

Example: Compact Discs (CDs), DVDs, Blu Rays

