



Highsted Knowledge Organiser

Computer Science: Computer Systems - Year 7

What I need to know

- Identify different input, output and storage devices.
- Differentiate between computer system and embedded system.
- Differentiate between hardware and software.

Key Vocabulary

- Input devices	- Output devices
- Storage devices	- Magnetic storage
- Solid state drive	- Optical drive
- Computer systems	- Embedded system
- Hardware	- Software

Student reference point

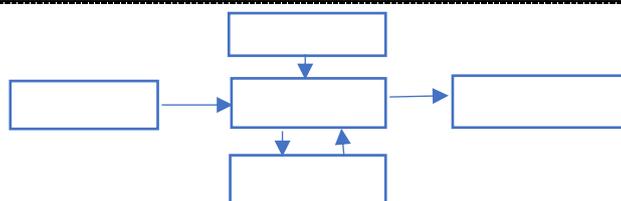
Input devices	Output devices	Storage devices
Send data to the computer	Receives information from the computer	Store information and programs from the computer
<ul style="list-style-type: none"> - Keyboard - Mouse - Barcode reader - Scanner - Touch screen 	<ul style="list-style-type: none"> - Screen - Speaker - Printer - Plotter - Touch screen 	<ul style="list-style-type: none"> - Magnetic storage: hard disk drive - Solid state drive: solid state drives, USB - Optical drive: CD, DVD, Blu Ray

Computer System	Embedded System	Hardware	Software
A computer system is an all-purpose system. You can load and execute various programs simultaneously.	An embedded system forms part of a larger computer system, device or machine. They tend to have one, or a limited number of tasks that they can perform.	Hardware is the physical components of the computer.	Software is the programs that run on the computer
<ul style="list-style-type: none"> - Laptop - Personal Computer (PC) - Tablet - Ipad 	<ul style="list-style-type: none"> - Washing machine - ATM - Traffic light system 	<ul style="list-style-type: none"> - Mouse - Keyboard - Cables - Motherboard - Buttons 	<ul style="list-style-type: none"> - Operating system (Windows OS) - Word processor - Internet Browser (Chrome)

Internal Devices	ROM	RAM
They are components that help with the running of the computer.	Read Only Memory	Random Access Memory
<ul style="list-style-type: none"> - CPU - Fan - Cables - Motherboard - ROM and RAM 	<ul style="list-style-type: none"> - Non-volatile - Data is not lost when computer power is switched off - Small capacity (4-8MB) - Stores the BIOS to check the hardware - Stores the bootstrap to load the operating system 	<ul style="list-style-type: none"> - Volatile - Data is lost when computer power is switch off - Larger capacity (32-128GB) - Holds programs and data currently in use by the user

Challenge question

- Complete this diagram: input, output, storage, software, process



Suggested reading

- <https://www.bbc.co.uk/bitesize/guides/z7qqmsg/revision/1>