

# COMPUTING SYSTEMS AND NETWORKS KNOWLEDGE ORGANISER

### Overview

#### Digital Devices

- You should already know that Technology is something that has been made by people to help us.
- You should also know that Information technology (I.T.) includes computers and things that work with computers.
- Digital devices are things made for a particular purpose, that use processing.

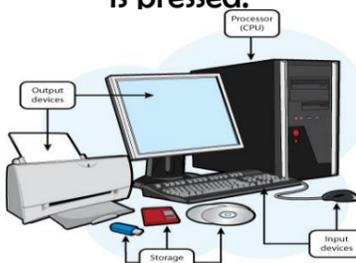
Digital devices have an input, process, and output (IPO).

- Information and data can be shared across networks. Many devices are used to create networks.

### Digital Devices – Input, Process Output (IPO)

- A device is something that has been made for a particular purpose (it has a special use).
- Digital devices use processing (have a process) There is more than just an on-off function.

Digital devices have an input, process, output (IPO)

<p><b>Input:</b> Something that sends a message to the device. E.g. You press a button on the keyboard.</p>  <p><b>Input Devices:</b> Keyboard, joystick, mouse, web cam, microphone, touch screen, track ball, digital camera.</p>	<p><b>Process:</b> The device acts on the message. E.g. The computer follows a program that tells it what to do when the keyboard is pressed.</p> 	<p><b>Output:</b> Something that is sent out by the device. E.g. The letter that you have typed on the screen.</p>  <p><b>Output Devices:</b> Screen/monitor, printer, headphones, projector, speaker, smartboard.</p>
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### Networks and Network Devices

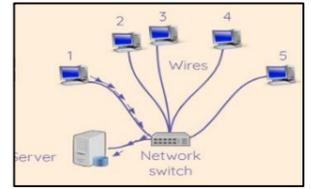
#### Connections and Networks

- In Computing, a connection describes a link between the computer and something else.
- For example, a computer may be connected to the internet through wires, a mobile data system, or WiFi.
- A computer network is a set of connections that joins computers together.
- The computers in the network can send and receive information to one another.



#### Network Devices

- Network switch: a device that helps different devices on a network to be connected with each other.
- Server: a computer that manages the network and stores files
- Wireless access point (WAP): a device, connected to a wired network, that sends and receives wireless signals to and from devices.



### Why Networks Are Useful

- Computer networks allow us to send and receive information between computers that are in different places.
- Networks can help us to communicate quickly and easily.
- Networks can also join computers to shared devices, like scanners and printers.
- The internet is a global network of computers. Imagine how different life would be without the internet!
- If information is shared on a network, it helps to reduce the risk of data being lost, e.g. if one computer breaks.



### Important Vocabulary

Digital Device	Input	Process	Output	Connection	Network	Network Switch	Server	WAP	E-Safety
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