

# COMPUTING SYSTEMS AND NETWORKS- Connecting Computers

# **KNOWLEDGE ORGANISEF**



#### **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.















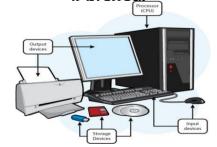
-A device is something that has been made for a particular purpose (it has a special use). Interactive Whiteboards and CleverTouch screens are a good tool for teaching and learning, iPads and other tablets are a good tool for researching, creating, storing and taking images. There are many devices suitable for different purposes. -Digital devices use processing (have a process) There is more than just an on-off function. Digital devices have an input, process, output (IPO)

**Input:** Something that sends a message to the device. E.g. You press a button on the keyboard.



**Input Devices:** Keyboard, joystick, mouse, web cam, microphone, touch screen, track ball, digital camera.

**Process:** The device acts on the message. E.g. The computer follows a program that tells it what to do when the keyboard is pressed.



**Output:** Something that is sent out by the device. E.g. The letter that you have typed on the screen.



# **Output Devices:**

Screen/monitor, printer, headphones, projector, speaker, smartboard.

#### **Networks and Network Devices**

#### **Connections and Networks**

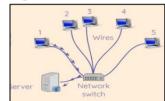
- -In Computing, a connection describes a link between the computer and something else.
- -For example, a computer may be connected to the internet through wires, a mobile data system, or WiFi.
- -A computer network is a set of connections that joins computers together.
- -The computers in the network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

Connection

Network