

Computing systems and networks – Connecting Computers

Knowledge Organiser

	Key Learning
Lesson 1: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can explain how digital devices function
Lesson 2: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can identify input and output devices
Lesson 3: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can recognise how digital devices can change the way that we work
Lesson 4: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can explain how a computer network can be used to share information
Lesson 5: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can explore how digital devices can be connected
Lesson 6: Y3 - IT1 (KPI) , Y3 - IT2, Y3 - IT3, Y3 - IT4, Y3 - IT5	I can recognise the physical components of a network

Input – The computer can only process information that it has been given, or that it has collected. This information is called input. It has been **put into** the computer system.

Process – Processing means to work with or organise and computers use a *computer processor* or *CPU* to do this.

Output – When the computer has processed the information and carried out the task it sends it back **out**. We call this information *output*.

Passwords – A password is a **secret word or phrase** that only you know. It is used to **login** to websites and access personal information.

Digital – Storing, using, or sending information electronically in the form of numbers.

Digital Device - A digital device is a machine or hardware that stores, uses, or sends information electronically in the form of numbers

Microphone - A microphone is a device that converts sound into an electrical signal.

Paint Program – A computer program which allows the user to paint their own digital art.

Fill – Usually a bucket icon used in a paint program to fill an enclosed area with a colour.

Undo – Take your actions in a program back one step.

A computer network – Two or more computers joined together to enable information to be shared between them.

Network switch: A network switch is a device that enables multiple devices on a network to be connected.

Key Questions

What is a switch/server/wireless access point?

- A *switch* is a box that helps different computers and devices talk to each other by connecting them with cables.
- A *server* is a special computer that shares things like information, programs, or services with other computers over a network.
- A *wireless access point* is a device that lets people connect their Wi-Fi gadgets, like laptops, to the internet without needing a cable.

How can the word 'input' be broken up into pieces to help us understand what it means? What about output?

Input comes from a device we use to **put** information **in** to a computer.

Output is what is produced, or **put out**, by the computer.

What is a process?

In computing, a *process* is like a job that a computer is working on. It follows steps to finish the job, like opening a game, running it, and showing it on the screen. It's how the computer gets things done.