Knowledge Organiser

Watton Junior School

Subject:	Topic:	Year:	Term:
Computers	Connecting Computers	3/4	Autumn 1

National Curriculum:

- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration

Key Vocabulary

Spelling	Definition
Digital Device	A piece of physical equipment that uses digital data
Input	Something that sends a message to the device to do an action. e.g You press a button on the keyboard.
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	Allows data to be transmitted by the computer E.g. The letter that you have typed can be seen on the screen.
Program	Software that operates a PC and does various things
Connection	A link between two or more people or things.
Network	A group of many people or things connected together
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	A device, connected to a wired network, that sends and receives wireless signals to and from devices
Network cable	Wires used to connect wired devices to the network

Key Knowledge

Area	Information
Computer networks	Computer networks work together to pass messages from one device to another
Input devices	Input devices are used to provide data and control signals to a digital device. An example of this is typing on a keyboard to turn into letters on a word processor
Output devices	Output devices are used to give the results of processed data. An example of this is a computer printer taking information from a computer and printing it so it can be seen.
Digital Devices	Some digital device can be used for Multiply jobs and purposes.
Digital and non-digital	You can either complete task either physical or on a electrical devices. There are benefits and disadvantages to using both.
Computer network	Many digital devices connected to other digital devices by a network. Computer networks allow us to send and receive information between computers that are in different places. The benefit of connecting digital devices is that it allows information to be shared between users and systems.
Network components	Key network components, including a server and wireless access points. They help connect device together which is useful because everyone can use them.

Key Questions

- How does a digital device work?
- What parts make up a digital device?
- How do digital devices help us?
- How am I connected?
- How are computers connected?
- What does our school network look like?

Misconceptions

. Input, process and output—Not all electrical items are digital devices as they might have an input and output but they don't but there is no processing between the input and the output *e.g. a desk lamp has an on and off switch to light up but does not need to process function to do this action.*

. Network switches — The function of a network switch is simply to direct information between computers, it does not create or edit the information.

. Wireless access points — Without this, wireless devices cannot connect to the network. The wireless access point is likely to be connected to the switch (answer A), but it is not the switch that is connecting to the wireless device.

Important images