Year 7 - Half-Term 2 – Networks, Hardware & Software – Knowledge Organiser

Lesson 1 & 2– Hardware & Storage

Hardware: The physical components that make up a computer system

Examples of Computer Hardware:

- CPU (Central Processing Unit): as the brain of the computer. This piece of hardware receives, stores and then executes instructions for the computer system.
- Motherboard: is the heart of the PC. It serves command central to coordinate the activities of the computer system
- Hard Drive, , Mouse, Keyboard, Monitor

Lesson 3 – Input and Output Devices

Input Device: An input device sends information to a computer system for processing,

Examples of input devices:

- Keyboard
- Mouse
- Microphone

Output Device: An output device reproduces or displays the results of that processing

Examples of output devices:

- Monitor
- Speakers
- Printer
- Projectors

Lesson 4 – Software

Software is defined as the programs or apps that we run on a computer / smart device. Examples of software:

- Presentation software like PowerPoint used to create presentations,
- Web browsers like google chrome used to explore the internet
- Word processing software's such as Microsoft Word that can be used to create documents.

Lesson 5 – Networks Types

Network: A network is a number of computers linked together to allow the sharing of resources, there are two:

Local Area Network: A local area network (LAN) is a collection of devices connected together in one physical location, such as a building, office, or home

Wide Area Network: A WAN covers a large geographical area. Most WANs are made from several LANs connected together

Lesson 6 – Network Connections Wired vs Wireless

A computer network can be either wired or wireless.

Wired networks send data along cables.

Wireless networks send data through the air using radio waves which is quick and cheap to set up and allows for portability. Popular examples of wireless technologies are:

- Bluetooth
- WiFi

Lesson 7 – The Internet & Cyberbullying

Malware, or "malicious software," is an umbrella term that describes any malicious program or code that is harmful to systems. Hostile, intrusive, and intentionally nasty, malware seeks to invade, damage, or disable computers, computer systems, networks, tablets, and mobile devices. Examples of malware include viruses, worms, ransomware and spyware.