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**The Bourne Academy**

**Knowledge Organiser: Year 9 Spring Term - ICT**

**4. Emerging technology**

**a) Artificial intelligence (AI)** is technology that performs tasks that typically require human intelligence, like problem-solving.

**b) Robotics** is the use of machines to perform tasks usually done by humans, like manufacturing.

**c) Bionics** are mechanical systems that mimic biological functions, like prosthetic limbs.

**d) Autonomy** is technology that can perform tasks on its own without human intervention, like driverless cars.

**e) Wearable technology** is smart electronic devices worn on the body, like fitness trackers or smartwatches.

**f) Control systems** is a set of devices that work together to manage or automate tasks, like home security systems.

**g) Weather forecasting app** is an app that provides weather predictions based on data like temperature or rain forecasts.

**h) Virtual reality** is a computer-generated simulation in which a person can interact.

**2. Application software**

**a) Open-source** software is free software that anyone can modify or share.

**b) Information handling** software is used to organize and manage data, like spreadsheets or databases.

**c) Customer relationship management (CRM)** software is used by businesses to manage customer interactions and sales.

**3. Communication tools**

**a) File transfer protocol (FTP)** is a method for transferring files between computers over a network.

**b) Voice over internet protocol (VoIP)** is software for making voice or video calls over the internet.

**c) Messaging software** is used for sending instant messages between users online.

**d) Email software** is used to send and receive messages over the internet.

**e) Video conference** is an electronic meeting, allowing users to hold face-to-face meetings.

**1. System software**

**a) Systems software** is software that helps users interact with computers and manage performance.

**b) Operating system** is the main software that controls computer hardware and allows other software to run.

**c) Utility software** are tools that help maintain computer performance, such as anti-virus.

**d) Anti-virus** is a tool that detects and removes harmful software from your computer.

**e) Backup** is the process of copying important data in case the original is lost or damaged.

**f) Compression** is the process of reducing the size of files to save space.

**g) Defragmentation** is reorganising files on a disk to make data access faster.

**h) Encryption** is a method of scrambling data to keep it secure from unauthorized access.

**i) File explorer** is a graphical tool that helps users manage and access files on a computer.

**j) Firewall** is software that monitors and controls incoming and outgoing network traffic.