Lesson 1: Artificial Intelligence

Artificial intelligence: technology that enables a computer to think or act in a more 'human' way. It does this by taking in information from its surroundings, and deciding its response based on what it learns or senses.

Advantages: AI can be used in healthcare, not only for research purposes, but also to take better care of patients through improved diagnosis and monitoring,

Disadvantages: Some critics believe that if computers become very intelligent, they could learn to do jobs which usually people would do, raising unemployment, and that human autonomy should be fully protected so that humans remain in full control of health-care systems and medical decisions, privacy and confidentiality, not computers.

Lesson 4: Colour & Digital Artifacts

Colours can be used to create meaning for target audiences. Different colours can represent different themes and topics, for example green and brown are commonly used to represent the environment, colours can also be used to evoke different emotions, for example red can be used for anger and yellow can be used for happiness.

Digital artifacts: a digitally created media asset.

Lesson 2: Target Audience

The **target audience** is defined as the main group which a product is designed to appeal towards. Target audiences can be categorised in many ways, but a key focus for producers and designers is the age and gender of the target audience. Developing a good understanding of what type of person is going to engage with a product is important when ensuring that it successfully appeals to them and meets their needs.

Lesson 5: Typography

Typography refers to the style and appearance of a group of related characters and text. Typography can be edited to better suit a digital artifact and can be edited based on the size, font, colour, boldness and case. Typography and text will either be serif or sans serif. Serif fonts have decorative lines or tapers while sans serif fonts don't. Sans serif fonts are considered to be more modern, streamlined, clean and objective, often used for logos and website. They are easily accessible for younger audiences due to their less complex structure. Serif fonts are usually used in lengthy text, such as books, newspapers, and magazines.

Lesson 3: Pixels & Resolution

Pixels are the smallest unit in a digital display. The image size simply refers to the number of pixels that an image contains, this is also referred to as the amount of dots per inch (dpi). In a low-resolution image, the pixels are larger and therefore, fewer are needed to fill the space. This results in images that look blocky or pixelated. An image with a high resolution has more pixels, so it looks a lot better when it is enlarged or stretched. The higher the resolution of an image, the larger its file size will be.

Lesson 6: Cyberbullying

Cyberbullying is when someone bullies others using electronic means. This might involve social media and messaging services on the internet that are accessed on a mobile phone, tablet or gaming platform. The behaviour is usually repeated and at times can be as subtle as leaving someone out of a group chat or cropping them out of a picture.

Cyberbullying can take many forms, including:

1. Threats and intimidation
2. Harassment and Stalking & Defamation
3. Rejection and exclusion
4. Identify theft, hacking and impersonation
5. Publicly posting or sending on personal information about another person
6. Manipulation

Year 7 - Half-Term 6 - Spreadsheets

Lesson 1: Spreadsheets

Spreadsheet: a computer program that represents information in a two-dimensional grid of data.

Purpose: spreadsheets allows users to analyse data and are used in a range of jobs and industries where information is stored, processed and evaluated including the education, business and scientific research sectors.

Cell Reference: spreadsheets are made up of individual cells which hold data, each cell has a cell reference. The cell reference begins with the column letter and is then followed by the row number.

Lesson 2: Formatting

Formatting in spreadsheets refers to a way of using targeted styles to signal what type of data is in a cell. Types of Formatting, user can change the:
fonts, font sizes, the colours, the borders and can also merge cells.
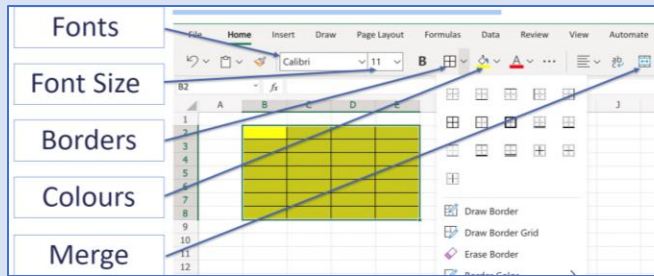
Lesson 3: Formulas

Formula: an equation that makes calculations based on the data in your spreadsheet.

Purpose: Formulas can be used to quickly and efficiently calculate sums using the data stored on a spreadsheet.

Symbols:
- To add cells together, the '+' symbol should be used.
- To subtract data, the '-' symbol should be used.
- To multiply data in cells, the '*' symbol should be used
- To divide data in cells the '/' symbol should be used

The formula should always be written into the cell where the user wants the answer to appear, and it should always begin with an = sign.

Multiplication Formula Example: `=C3*D3`

Lesson 4: Functions

Functions: these enable users to perform mathematical, statistical and logical operations effectively. Functions are used to extract important information quickly, without individuals having to manually read through and process the data.

4 key functions:

'MAX' - stands for maximum: enables users to find the highest number in the cells used within the function.

'MIN' - stands for minimum: enables users to find the lowest number in the cells used within the function.

'AVERAGE' - works out the average number of the selected cells once they have been added together and divided by the number of pieces of data included.

'SUM' - adds together all the numbers within the cells that have been highlighted and added to the function.

Lesson 5: Filters & COUNTIF Function

Filters: used to narrow down the data in your worksheet and hide parts of it from view. While it may sound a little like grouping, filtering is different because it allows you to qualify and display only the data that interests you. For example, you could filter a list of survey participants to view only those who are between the ages of 25 and 34.
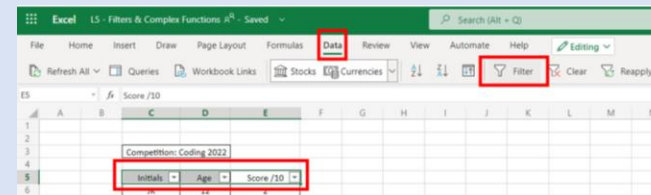
'COUNTIF' function counts how many cells meet your criteria, for example if a user wanted to know how many people scored 5 out of 10 marks in the assessment, with their scores being listed between cells E3 to E17, a 'COUNTIF' function that reads **=COUNTIF(E3:E17, 5)** would total up the number of people who achieved that score.

Lesson 6: Online Safety– Digital Footprint

Your digital footprint is the record of all your interactions, the trail that you leave, online. Once something is posted or shared online, it can be there forever. Understanding your digital footprint helps you choose and control what you leave online for others to find.

Your digital footprint can have a lasting impact on your reputation, relationships, employment opportunities and financial status.

Posting positive, uplifting and encouraging content online can support an effective digital footprint. Posting derogatory, upsetting or inaccurate information online can have the opposite effect and can lead to an obstructive digital footprint.