

<p>Unit 6.1 – We are toy makers</p> <p>Accelerometer: hardware component providing data on changes in motion, typically in three directions</p> <p>Bluetooth: wireless digital communication protocol using low energy signals over short distances</p> <p>Controller: programmable device that determines electronic output based on electronic input</p> <p>Decomposition: breaking a problem down into smaller parts</p> <p>Edge connector: part of a circuit board that allows input and output components to be directly connected</p> <p>Embedded system: computer hardware and software that forms part of a device or product</p> <p>Input: data supplied to a computer</p> <p>Interactive: system whose output is determined by the input provided</p> <p>Light-emitting diode (LED): an electronic component that lights up when current flows in one direction</p> <p>MakeCode: block- and text-based editor from Microsoft, supporting a variety of hardware platforms including the micro:bit</p> <p>micro:bit: simple, single board programmable computer with integrated input, output and network capabilities</p> <p>Microprocessor: single silicon chip that performs all the functions of a computer's central processing unit</p> <p>Output: information produced by a computer</p> <p>Simulator: software that allows one computer system to behave as another</p> <p>System: a set of components (perhaps of different types, such as hardware and software) working together</p>
<p>Unit 6.2 – We are computational thinkers</p> <p>Abstraction: computational thinking approach to managing complexity by simplifying things, through identifying what is important and what detail can be hidden or ignored</p> <p>Algorithm: a sequence of precise instructions or steps (sometimes a set of rules) to achieve an objective</p> <p>Binary search: search algorithm that identifies repeatedly which half of the list of possible elements the target belongs to</p> <p>Decomposition: breaking a problem down into smaller parts</p> <p>Divide and conquer: class of algorithms in which the problem is decomposed into smaller, simpler parts, to which the same algorithm can then be applied</p> <p>Graph: data structure showing the connections between elements</p> <p>Greedy algorithm: algorithms that work on a 'biggest first' basis, applying divide and conquer methods to reduce the problem rapidly to a simpler problem</p> <p>Linear search: search algorithm that looks at each element in turn to see if it meets the criteria</p> <p>Quicksort: 'divide and conquer' sort algorithm which partitions a list into elements smaller than and larger than a pivot element, and then applies the algorithm to sorting each of these lists</p> <p>Search: to identify an element of a list that meets specified criteria</p> <p>Search algorithm: the way results for a search are selected and ranked, typically through the presence of key words, and by the number and quality of inbound links</p> <p>Selection sort: sort algorithm which looks for the largest element, then the next largest and so on, until the list is in order</p> <p>Sort: to put a list into order</p>
<p>Unit 6.3 – We are publishers</p> <p>Creative Commons: licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions</p> <p>Desktop publishing (DTP): software and hardware system designed to produce high-quality print (or equivalent digital) media by users without experience in publishing or printing</p> <p>eBook: a book made available in digital form</p> <p>ePub: eBook format supported by Apple Books and Google Play Books</p> <p>Folder: a collection of files in a device or network file system</p> <p>Image: picture, diagram, chart or photograph</p> <p>Portable document format (PDF): Adobe's open standard for digital versions of print media, supported across different software platforms and devices – typically includes support for commenting and other annotation</p> <p>Text: the written word</p>
<p>Unit 6.4 – We are connected</p> <p>Anchor tag bias: disproportionate weight given to one perspective, typically because it accords with the author's own</p> <p>Blog: a website consisting of short articles, presented in reverse date order, typically inviting responses</p>

<p>Fake news: a fictional, or partly fictional, story presented as news</p> <p>Hyperlink: web technology allowing web pages to link to other pages, for example to show the source of information</p> <p>Neutral point of view: a balanced perspective where all sides of an argument are presented fairly</p> <p>Online bullying (cyberbullying): deliberate, typically repeated or extreme harassment conducted via the Internet or other network technologies</p> <p>Plausible: an argument or story that is likely or probable, one that many might believe</p> <p>Reliable: a source that can be trusted, based on authority, expertise or experience</p> <p>Social media: websites and apps that allow users to create and share content or to participate in conversations with one or more other users</p> <p>Source: the origin of a piece of information</p>
<p>Unit 6.5 — We are advertisers</p> <p>Creative Commons: licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions</p> <p>Export: to save media in a format such that it can be watched, listened to or read by others without access to the editing software used in its production</p> <p>Final cut: stage of video production in which the footage is in its finished form in the editing software</p> <p>Rough cut: stage of video production in which scenes and shots are assembled in the correct sequence but without the attention to detail needed in the final cut</p> <p>Rushes: unedited footage from a video recording</p> <p>Storyboard: planning document for video or animation in which each scene, or sometimes shot, is drawn</p>
<p>Unit 6.6 — We are AI developers</p> <p>Artificial intelligence: the study of automated systems that perform actions which require intelligence when performed by humans</p> <p>Classifier: machine learning model which assigns an input to one of a number of distinct classes</p> <p>Decision tree: branching sequence of questions used to determine to which class an item belongs</p> <p>Image recognition: machine learning application in which images are classified — examples include facial recognition and optical character recognition</p> <p>Label: the name given to examples in a group in a machine learning classifier</p> <p>Layer: group of nodes/‘neurons’ in a neural network all the same ‘distance’ away from the input nodes</p> <p>Machine learning: approach to artificial intelligence in which the relationship between input and output of a computer system is determined by the data provided to the system, rather than by the program directly</p> <p>Model: the way a machine learning algorithm relates input to corresponding output, based on the training data it is provided with</p> <p>Natural language processing: machine learning applications concerned with human language, such as identifying the sentiments or emotions in a piece of text or interacting in a conversation</p> <p>Neural network: group of machine learning algorithms, based loosely on the brain, that recognise patterns. The functions change during the training process to improve the accuracy of the model</p> <p>Node: individual ‘neuron’ in an artificial neural network, accepting inputs and using a function to determine output</p> <p>Sentiment analysis: application of natural language processing which attempts to identify the broad emotional tone of a piece of text</p> <p>Spectrogram: representation of audio showing the different frequencies present</p> <p>Speech recognition: application of machine learning in which speech is transcribed to text</p> <p>Test data: examples given to a machine learning system to determine how good the model is at determining output from input</p> <p>Training data: data provided to a machine learning system to develop the specific model it uses to relate input and output</p> <p>Watson: IBM’s cloud-based machine learning platform</p>