



GLOSSARY

What do all the terms mean?

The Progression Framework uses a number of terms and phrases that are not immediately self-evident. These are explained below.

Key term	Definition
Algorithm	An unambiguous set of rules or a precise step-by-step guide to solve a problem or achieve a particular objective.
Block	A graphical representation of computer code in languages such as Scratch; also used to describe a part of a computer program.
Block language	A programming language in which blocks are used to program the computer.
Cache	To make a copy of information for faster retrieval or processing.
Command	An instruction, written in a particular programming language, for the computer to execute.
Content management system	A database-driven system for managing web-based content, in which pages are generated automatically from stored content. Examples include WordPress and Moodle.
Data	A structured set of numbers, possibly representing digitised text, images, sound or video, which can be processed or transmitted by a computer; also used for numerical (quantitative) information.
Debug	To fix the errors in a program.
Digital devices	Electronic hardware that processes information represented as numbers, using a microprocessor to control its operation, including laptop computers, tablets and smartphones.
Domain Name System (DNS)	The distributed automatic system that converts domain names into the IP addresses that are used for routing packets via the internet.
Encryption	Securely encoding information so that it can only be read by those knowing both the system used and a secret, private key.
E-safety	Used to describe behaviours and policies intended to minimise the risks to a user of using digital technology, particularly the internet.
Hardware	The physical systems and components of digital devices; see also software .
Hypertext mark-up language (HTML)	HTML is the language in which web pages are composed.

Hypertext transfer protocol (HTTP)	HTTP is the standard protocol for the request and transmission of HTML web pages between browser and web server.
Hypertext transfer protocol – secure (HTTPS)	An encrypted version of HTTP in which page content cannot be read by the internet routers and gateways through which it passes.
Input	Data provided to a computer system, e.g. via a keyboard, mouse, microphone, camera or physical sensors.
Interface	The boundary between one system and another – often used to describe how a person interacts with a computer.
Internet Protocol (IP) addresses	Numeric addresses uniquely specifying computers directly connected to the internet; also used on private networks to uniquely identify computers on that network.
Iteration	A form of repetition in which a variable keeps track of how many times the loop has been executed.
Loop	A block of code repeated automatically under the program's control.
Network	The computers and the connecting hardware (Wi-Fi access points, cables, fibres, switches and routers) that make it possible to transfer data using an agreed method ('protocol').
Operating system	The programs on a computer that deal with internal management of memory, input/output, security and so on, such as Windows 10 or iOS.
Output	The information produced by a computer system for its user, typically on a screen, through speakers or on a printer, but possibly through the control of motors in physical systems.
Packets of data	A small set of numbers that get transmitted together via the internet, typically enough for 1000 or 1500 characters.
Platform	Used to describe computer systems in which particular content, programs or systems can be developed.
Program	A stored set of instructions encoded in a language understood by the computer that does some form of computation, processing input and/or stored data to generate output.
Pulse code modulation (PCM)	The standard format for audio files, such as CDs, in which the amplitude of the sound is represented at one of, say, 65,536 levels, sampled, say, 44,100 times a second.
Repetition	Executing a section of computer code a number of times as part of the program.
Reverse engineer	The process of extracting knowledge or design information from an artefact, such as a computer program, often by experimenting with it to see how different inputs produce different outputs.
Safe search mode	A search engine functionality in which inappropriate results are hidden.
Script	A computer program typically executed one line at a time through an interpreter, such as the instructions for a Scratch character.
Selection	A programming construct in which one section of code or another is executed depending on whether a particular condition is met.
Sequence	To place program instructions in order, with each executed one after the other.

Server	A computer connected to the internet or to a local area network providing services – such as file storage, printing, authentication, web pages or email – automatically to other computers on the internet or local network.
Simulation	Using a computer to model the state and behaviour of real-world (or imaginary) systems, including physical or social systems; an integral part of most computer games.
Software	The programs that control or are run on a computer, written in one or other programming language, including the operating system, interpreters, compilers and application programs (apps).
Sprite	A computer graphics object that can be controlled (programmed) independently of other objects or the background.
Unicode	A system for representing typographic symbols and text in many different writing systems digitally.
Uniform Resource Locator (URL)	A standard for specifying the location on the internet of certain data files, such as http://info.cern.ch/hypertext/WWW/TheProject.html . In this case (and typically), the URL includes the protocol used to transmit the data, the computer on which it is stored, the file path and the file name of the data.
Variables	A way in which computer programs can store, retrieve or change data, such as a score, the time left or the user's name.
Web (World Wide Web or WWW)	A service provided by computers connected to the internet (web servers) in which pages of hypertext (web pages) are transmitted to users; the pages typically include links to other web pages and may be generated by programs automatically.

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