**abstraction**: changing a human problem into one that can be solved by a computer.
**access point**: where a device connects to a Wifi service.
**accumulator (ACC)**: stores the results of calculations made by the ALU.
**ALU**: arithmetic and logic unit.
**array**: a data structure.
**assembler**: converts low-level language programs into executable code.
**binary**: a number system that uses only 0 and 1.
**break point**: interrupts a program at a specific line.
**bridge**: connects one LAN to another.
**bus**: pathway used to transfer data.
**cache memory**: fast access temporary storage on the CPU.
**central processing unit**: the components of the computer that process the instructions.
**character**: any letter, number, punctuation mark or symbol.
**character sets**: the way characters are represented in binary.
**circuit switching**: provides a dedicated link between two nodes.
**CISC**: complex instruction set computer.
**class**: a template for creating objects in object-oriented programming.
**clock speed**: indicates how fast each instruction will be executed.
**command line interface (CLI)**: interface between user and computer that is command driven.
**compiler**: translates high level source code into machine code all in one go.
**computer architecture**: the internal organisational structure of a computer.
**control unit (CU)**: directs the operation of the CPU.
**cookie**: software used by a web browser to gather user information.
**current instruction register (CIR)**: stores the instruction that is currently being executed.
**data capacity**: the amount of data a storage device can hold.
**debugging**: finding and correcting errors in computer code.

**decomposition**: splitting a complex problem into smaller parts.
**defragmentation software**: rearranges the data on a disk to make it more efficient.
**denary**: a number system that uses the digits 0–9.
**digitise**: changing an analogue value to a digital one.
**documentation**: explanation of the program code.
**Domain Name System (DNS)**: database that matches IP addresses to computer system resources.
**embedded system**: software and hardware created for a specific purpose.
**encapsulation**: wrapping code and data together into a single unit.
**encryption**: scrambles data to prevent it being understood if it is intercepted.
**error diagnostics**: error messages displayed to help the programmer.
**fetch-decode-execute cycle**: three steps to processing instructions when a program is running.
**field**: a single data item in a record.
**file**: a collection of related records.
**file server**: computer on the network that stores the files used by workstations.
**flag**: a bit that indicates something such as a register overflow.
**flash memory**: stores data permanently such as on a camera card or USB stick.
**function**: a subroutine that returns a value.
**gateway**: connects a LAN to a WAN such as the internet.
**generations of files**: backing up using the grandfather–father–son system.
**global variable**: a variable that is recognised throughout a program.
**graphics processor unit (GPU)**: processing 3D graphics and video animation.
**GUI**: graphical user interface.
**hexadecimal**: a number system that uses the characters 0–F.
**hub**: a connection point between cables in a network.
**human computer interface (HCI)**: where the computer and the human interact.
**Glossary**

**inheritance:** allows a class to use the properties and methods of an existing class.

**instance variable:** variables that are bound to class instances.

**instruction set:** the set of machine code instructions recognised by a CPU.

**interpreter:** translates high-level code into machine code one line at a time.

**iteration:** a process that is repeated.

**key logger:** malware that records the key presses of the user.

**layer:** one of the layers of the TCP/IP.

**linker:** links compiled sections of code together.

**local variable:** a variable that is only recognised in a particular subroutine.

**lossless compression:** compression of files with no reduction of data quality.

**lossy compression:** compression of files with a reduction of data quality.

**memory address register (MAR):** stores the memory location of data currently being written or read.

**memory inspector:** displays the contents of all the stores in a section of memory.

**method:** the behaviour of an object in object-oriented programming.

**module:** a discrete part of a computer program.

**motherboard:** the circuit board holding all the components of the computer.

**object:** a particular instance of a class.

**object-oriented languages:** using objects rather than actions and data rather than logic.

**overflow:** bits that disappear from registers following operations.

**packet switching:** data is split up into small packets.

**program counter (PC):** stores the location of the next instruction needed by the processor.

**protocol:** a set of rules such as HTTP (Hypertext Transfer Protocol).

**pseudocode:** an algorithm not using a specific programming language.

**RAM:** random access memory.

**record:** a collection of related items.

**repetition:** a process that is repeated.

**RISC:** reduced instruction set computer.

**ROM:** read only memory.

**router:** forwards packets of data along a network.

**sampling:** the number of samples per second taken when digitising sound.

**selection:** following a particular route depending on the answer to a question.

**sequence:** instructions are written to be executed in a predetermined order.

**single stepping:** executes a program one line at a time when debugging.

**software engineering:** the process of developing software.

**store dump:** displays the contents of all variables used by the program.

**subroutine:** a section of program code that can be called many times.

**switch:** filters and forwards data packets to the intended destination.

**trace:** displays the order in which the program is being executed.

**utility software:** keeps the computer running efficiently.

**variable lifetime:** a variable exists only as long as the program code that uses it.

**variable watch:** shows values of variables while the program is running.

**virus:** malware that can damage data on your computer.

**worm:** malware that replicates itself in order to spread to other computers.