St Elizabeth's Catholic Voluntary Academy - Progression in Computing

Intent

At St Elizabeth's, we aim to prepare our pupils for the future by giving them the opportunities to gain knowledge and develop skills that will equip them for an everchanging digital world. Knowledge and understanding of Computing is of increasing importance for children's future both at home and for employment. Our Computing curriculum focuses on a progression of skills in digital literacy, computer science and information technology to ensure that children become competent in safely using, as well as understanding, technology. These strands are taught discretely through a range of units during children's time in school to ensure the learning is embedded and skills are successfully developed. Our intention is that Computing also supports children's creativity and cross curricular learning to engage children and enrich their experiences in school.

Implementation:

1. Curriculum drivers shape our curriculum breadth in Computing. They are derived from an exploration of the backgrounds of our students, our beliefs about high quality education and our values. They are used to ensure we give our students appropriate and ambitious curriculum opportunities. **Our curriculum drivers are community, spirituality, culture, democracy and possibilities.**
2. Cultural capital gives our students the vital background knowledge required to be informed and thoughtful members of our community who understand and believe in British values.
3. Curriculum breadth is shaped by our curriculum drivers, cultural capital, subject topics and our ambition for students to study the best of what has been thought and said by many generations of academics and scholars.
4. Our curriculum distinguishes between subject topics and 'Curriculum Themes'. Subject topics are the specific aspects of subjects that are studied.
5. **Curriculum Themes** tie together the subject topics into meaningful schema. The same concepts are explored in a wide breadth of topics. Through this 'forwards-and-backwards engineering' of the curriculum, students return to the same themes over and over and gradually build understanding of them. In Computing, these curriculum themes are; ***Computing Systems and Networks, Creating Media, Programming A, Data and Information, Programming B.***
6. **Golden Threads:** These 'Golden Threads' help students to relate each topic to previously studied topics and to form strong, meaningful schema. In Computing these Golden Threads include: ***Digital Literacy, Computer Science and Information Technology.***
7. Cognitive science tells us that working memory is limited and that cognitive load is too high if students are rushed through content. This limits the acquisition of long-term memory. Cognitive science also tells us that in order for students to become creative thinkers or have a greater depth of understanding they must first master the basics, which taken time.
8. **Progression:** For each of the Curriculum Themes, learning is planned by year group, each of which includes the procedural and Golden Threads in each subject, giving students a way of expressing their understanding of the Curriculum.
9. **Cognitive Domains:** Within each year group, students gradually progress in their procedural fluency and semantic strength through three cognitive domains: remembering, knowing and reasoning. The goal for students is to display sustained mastery at the 'advancing' stage of understanding by the end of each phase (Key Stage 1, Lower Key Stage 2, Upper Key Stage 2) and for the most able to have a greater depth of understanding at the 'deep' stage.

Progression through the Cognitive Domains		
Remembering	**Knowing**	**Reasoning**
Acquiring knowledge.	Applying knowledge.	Reasoning with knowledge.
Knowledge is explicit and unconnected.	Knowledge is explicit and connected.	Knowledge is connected and tacit.
Relying on working memory.	Drawing on long-term memory, freeing working memory to consider application.	Relies on long-term memory, freeing working memory to be inventive.
Procedures processed one at a time with conscious effort.	Procedures being automatic.	Automatic recall of procedures.
Understands only in the context in which the materials are presented.	Sees underlying concepts between familiar contexts.	Uses conceptual understanding in unfamiliar situations.
New information does not readily stick. Schemes are limited.	New information is linked to prior knowledge. Schemas are strong.	Readily assimilates new information into rapidly expanding schemas.
Struggles to search for problem solutions. Relies on means-end analysis.	Combines searching for problem solutions with means-end analysis.	Draws on a vast store of problem solutions.
Requires explicit instructions and models.	Uses models effectively.	Prefers discovery approaches to learning.

10. **Pedagogical Content Knowledge and Strategies:** As part of our progression model we use a different pedagogical style in each of the cognitive domains of remembering, knowing and reasoning. This is based on the research of Sweller, Kirschner and Rosenshine who argue to direct instruction in the early stages of learning and discovery based approaches later. We use direct instruction in the Remembering domain and problem-based discovery in the Reasoning domain. This is called the reversal effect.
11. Our curriculum design is based on evidence from cognitive science; three main principles underpin it:
    - Learning is most effective with spaced repetition.
    - Retrieval of previously learned content is frequent and regular, which increases both storage and retrieval strength.
    - By revisiting Golden Threads, pupils are able to build a strong schema, and develop skills to become a competent user of compute.
12. In addition to the three principles we also understand that learning is invisible in the short-term and that sustained mastery takes time.
13. Our content is subject specific. We make intra-curricular links to strengthen schema.
14. Continuous provision, in the form of daily routines, replaces the teaching of some aspects of the curriculum and, in other cases, provides retrieval practice for previously learned content.

Key Stage 1 - Milestone 1
Computing Science
• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs.
Information Technology
• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
Digital Literacy
• Recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

	Lower Key Stage 2 – Milestone 2	Upper Key Stage 2 – Milestone 3
Computer Science	*Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.*	
	Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.	Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.
	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	
	Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects. Children understand how variables can be used to store information while a program is executing.	Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design.
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	
	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'if' statements, repetition and variables. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. traffic light algorithm in 2Code. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables.
	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.	
	Children can list a range of ways that the internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails	Children understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online

	using 2Email. They can describe appropriate email conventions when communicating in this way.	communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.
Information Technology	*Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.*	
	Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine or internet-wide search engines.	Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	
	Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.	Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.
Digital Literacy	*Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.*	
	Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email. They know more than one way to report unacceptable content and contact.	Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.

Breadth of Study – Key Stage 1

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Use logical reasoning to predict the behaviour of simple programs.
  Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private and recognise common uses of information technology beyond school.

Breadth of Study – Key Stage 2

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works, detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Topics Across the School	
ELGs most pertinent for Computing:	
Area of Learning: Personal, Social and Emotional Development Managing Self Expressive Arts and Design Creating with Materials Computational Thinking	**Early Learning Goals:** • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
Throughout the year, Computing is accessible and embedded through Continuous Provision and through general teaching.	

Milestone 1 (Remembering and Knowing) Year 1	Milestone 1 (Knowing and Reasoning) Year 2	Milestone 2 (Remembering and Knowing) Year 3	Milestone 2 (Knowing and Reasoning) Year 4	Milestone 3 (Remembering and Knowing) Year 5	Milestone 3 (Knowing and Reasoning) Year 6

	ADVENT 1 Computing Systems and Networks Digital Literacy	ADVENT 2 Creating Media Information Technology	LENT 1 Programming A Computer Science	LENT 2 Data and Information Information Technology	PENTECOST 1 Creating Media Information Technology	PENTECOST 2 Programming B Computer Science
Online Safety – taught across the year and included in our RSHE curriculum						
YEAR 1 **Composite**	**Technology around us** *Recognising technology in school and using it responsibly.* To identify technology in the	**Digital Painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally	**Moving a Robot** Writing short algorithms and programs for floor robots and predicting program outcomes.	**Grouping Data** Exploring object labels, then using them to sort and group objects by properties. To label objects and identify	**Digital Writing** Using a computer to create and format text, before comparing to writing non-digitally. To use a computer	**Programming Animations** Designing and programming the movement of a character on screen to tell stories.

Components	classroom and around us in school and create rules for using technology responsibly. To identify a computer and its main parts and use a mouse in different ways. To use a keyboard to type and edit text.	To describe what different tools do – including freehand, shape and line tools. To make careful choices when painting a digital picture and explain why I chose the tools I used. To use a computer on my own to paint a picture and compare this to a picture on paper.	To explain what a given command will do and act out the given word. To combine four direction commands to make a sequence. To plan a simple program and find more than one solution to a problem.	objects can be counted. To describe objects in different ways and count objects with the same properties. To compare groups on objects and answer questions about a group.	to write and to add and move text. To identify that the look of text can be changed on a computer and make careful choices when changing text. Can explain why I used the tools I chose and can compare writing on a computer with writing on paper.	To choose a command for a given purpose and show that a series of commands can be joined together. To identify the effect of changing a value and explain that each sprite has its own instructions. To design the parts of a project and use my algorithm to create a program.
YEAR 2 **Composite** **Components**	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond To recognise the uses and features of information technology and identify information technology in the home.	**Digital photography** Capturing and changing digital photographs for different purposes To know what devices can be used to take photographs and can use a digital device to take a photograph.	**Robot algorithms** Creating and debugging programs and using logical reasoning to make predictions. To describe a series of instructions as a sequence and explain what happens when we change the order of instructions.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer. To recognise that we can count and compare objects using tally charts and know that objects can be represented as pictures.	**Making Music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. To identify that there are patterns in music. To show how music is made	**Programming Quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz To explain that a sequence of commands has a start and has an outcome. To create a program using a given design

	To identify information technology beyond school and explain how information technology benefits us. To show how to use information technology safely and recognise that choices are made when using information technology.	To describe what makes a good photograph. To recognise that images can be changed and can use tools to change an image.	To use logical reasoning to predict the outcome of a program (series of commands) and explain that programming projects can have code and artwork. To design an algorithm and create and debug a program that I have written.	To create a pictogram, select objects by attribute and make comparisons. To explain how we can present information using a computer.	from a series of notes. To create music for a purpose and review and refine my computer work.	and change a given design. To create a program using my own design and can decide how my project can be improved.
YEAR 3 **Composite** **Components**	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks To explain how digital devices function and can identify input and output devices. To recognise how digital devices can change the way we work, and explore	**Stop-frame animation** Capturing and editing digital still images to produce a stopframe animation that tells a story. To explain that animation is a sequence of drawings, photographs or images and can plan an animation using a story board. To create a stop-frame animation,	**Sequencing sounds** Creating sequences in a block-based programming language to make music To explore a new programing environment and identify that each sprite is controlled by the commands I choose. To explain that a program has a start and recognise that a sequence of	**Branching databases** Building and using branching databases to group objects using yes/no questions. To create questions with yes/no answers and identify the object attributes needed to collect relevant data. To create a branching database and identify objects	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose To recognise how text and images convey information and layout can be edited. To choose appropriate page settings and can add content to a	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of action To explain how a sprite moves in an existing project and create a program to move a sprite in four directions. To adapt a program to a new context and develop it by adding features. To design and create a maze-based

	how digital devices can be connected. To explain how a computer network can be used to share information and recognise the physical components of a network.	identifying the need to work consistently and carefully. To review and improve an animation and evaluate the impact of adding other media to an animation.	commands can have an order. To change the appearance of my project and create a music project from a task description.	using a branching database. To explain why it is helpful for a database to be well structured and can compare the information in a pictogram with a branching database.	desktop publishing publication. To consider how different layouts can suit different purposes consider the benefits of desktop publishing.	challenge and identify and fix bugs in a program.
YEAR 4 **Composite** **Components**	**The internet** Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. To describe how networks physically connect to other networks and that these networked devices make up the internet. To outline how websites can be shared via the World Wide Web and can describe how content can be added and accessed	**Audio editing** Capturing and editing audio to produce a podcast, ensuring that copyright is considered. To identify that sound can be digitally recorded and use a digital device to record sound. To explain that a digital recording is stored as a file and that audio can be changed through editing. To show that different types of audio can be combined and	**Repetition in shapes** Using a text-based programming language to explore count controlled loops when drawing shapes. To identify that accuracy in programming is important and can create a program in a text-based language. To explain what 'repeat' means and modify a count-controlled loop to produce a given outcome.	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation To explain that data gathered over time can be used to answer questions and use a digital device to collect data automatically. To explain that a data logger collects 'data points' from sensors over time. To use data collected over a	**Photo editing** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled To explain that digital images can be changed and change the composition of an image. Describe how images can be changed for different uses. To make good choices when selecting different tools. To recognise that	**Repetition in games** Using a block-based programming language to explore count controlled and infinite loops when creating a game To develop the use of count-controlled loops in a different programming environment. To explain that in programming there are infinite loops and count controlled loops and develop a design which includes two or more loops which run at the same time. To modify an infinite loop in a given

	on the World Wide Web. To recognise how the content of the WWW is created by people and evaluate the consequences of unreliable content.	played together and evaluate editing choices made.	To decompose a program into parts and create a program that uses count-controlled loops to produce a given outcome.	long duration to find information, and identify the data needed to answer questions and use collected data to answer questions.	not all images are real and evaluate how changes can improve an image.	program, design and create a project that includes repetition.
YEAR 5 **Composite** **Components**	**Sharing information** Identifying and exploring how information is shared between digital systems. To explain that computers can be connected together to form systems and recognise the role of computer systems in our lives. To recognise how information is transferred over the internet and can explain how sharing information online lets people in different places work together. To contribute to a shared project online and evaluate	**Video editing** Planning, capturing, and editing video to produce a short film To recognise video as moving pictures, which can include audio and identify digital devices that can record video. To capture video using a digital device and recognise the features of an effective video. To identify that video can be improved through reshooting and editing and consider the impact of the	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller. To control a simple circuit connected to a computer, write a program that includes count-controlled loops and explain that a loop can stop when a condition is met e.g. number of times. To conclude that a loop can be used to repeatedly check whether a condition has been met.	**Flat-file databases** Using a database to order data and create charts to answer questions. To use a form to record information and compare paper and computer-based databases. To outline how grouping and then sorting data allows us to answer questions and explain that tools can be used to select specific data. To explain that computer programs can be used to compare data visually and	**Vector drawing** Creating images in a drawing program by using layers and groups of objects To identify that drawing tools can be used to produce different outcomes. To create a vector drawing by combining shapes, use tools to achieve a desired effect and recognise that vector drawings consist of layers. To group objects to make them easier to work with and evaluate my vector drawing.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz To explain how selection is used in computer programs and relate that a conditional statement connects a condition to an outcome. To explain how selection directs the flow of a program and design a program which uses selection. To create a program which uses selection and evaluate my program.

	different ways of working together online.	choices made when making and sharing a video.	To design a physical project that includes selection and create a controllable system that includes selection.	apply my knowledge of a database to ask and answer real-world questions.		
YEAR 6 **Composite** **Components**	**Internet communication** Recognising how the WWW can be used to communicate and be searched to find information. To identify how to use a search engine and describe how search engines select results. To explain how search results are ranked and recognise why the order of results is important, and to whom. To recognise how we communicate using technology and evaluate different methods of	**Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation. To review an existing website and consider its structure. To plan the features of a web page, consider the ownership and use of images (copyright). Can recognise the need to preview pages, can outline the need for a navigation path and recognise the implications of linking to content	**Variables in games** Exploring variables when designing and coding a game. Can define a 'variable' as something that is changeable, know why a variable is used in a program and can choose how to improve a game by using variables. Can design a project that builds on a given example. Can use my design to create a project and evaluate my project.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data. Can identify questions which can be answered using data and explain that objects can be described using data. Can explain that formula can be used to produce calculated data and apply formulas to data, including duplicating. Can create a spreadsheet to plan an event and	**3D modelling** Planning, developing, and evaluating 3D computer models of physical objects Can use a computer to create and manipulate three-dimensional (3D) digital objects. Can compare working digitally with 2D and 3D graphics and construct a digital 3D model of a physical object. Can identify that physical objects can be broken down into a collection of 3D shapes, design a digital model by	**Sensing Movement** Designing and coding a project that captures inputs from a physical device To create a program to run on a controllable device and explain that selection can control the flow of a program. To update a variable with a user input and can use conditional statements to compare a variable to a value. To design a project that uses inputs and outputs on a controllable device and develop a program to use inputs and outputs

	online communication.	owned by other people.		choose suitable ways to present data.	combining 3D objects and develop and improve a digital 3D model.	on a controllable device.

Cognitive Domains – Key Stage 1		
Remembering	**Knowing**	**Reasoning**
Label List Name Describe Find How/Who/Which/What/ Where Reasoning	Compare and contrast Point out Create Identify Explain / explain the method Summarise Explain why Organise Show Evaluate Group Why… What are the main similarities and differences between…? Find out… Create a timeline to show… Suggest some reasons… What observations can you make about?	Recommend True or false…? Do you agree…? What is the connection between…? Investigate Suggest Always, sometimes or never? Explain the concepts of… Discover Discuss… Summarise Give evidence that… Do you agree that…? Suggest reasons Compile Which best describes…? Which is the odd one out? Could this be true? What influence did ___ have on ___ Could….? Justify your answer Find evidence of… Present a piece of writing to explain…

Cognitive Domains – Key Stage 2		
Remembering	**Knowing**	**Reasoning**
Describe Label Name Define List Create	Is___ a reliable source? Provide a chronology of… Identify significant events… What impact did… Present information about… Summarise… What evidence is there that… Give an overview of… Compare Contrast Compare and contrast Organise information about… Explain/Explain why Classify Identify patterns between Identify the similarities and differences Demonstrate Give some reasons Suggest reasons why… Point out What observations can you make about…	Relate Investigate using multiple sources of evidence… Recommend sources of evidence/artefacts to show… Select Compile Research Make generalisations Prove… Persuade Investigate Recommend Draw conclusions Propose Summarise True or false…? Do you agree? Justify your answer Use historical language to present your information on… Plan an historical enquiry that uses multiple sources of evidence to explain…

Vocabulary Progression Chart for Computing – Key Stage 1 and 2			
Term	**Definition**	**Key Stage 1**	**Key Stage 2**
Algorithm	A precise set of ordered steps that can be followed by a human or a computer to achieve a task	✓	✓

Attribute (property)	A word or a phrase that can be used to describe an object such as its colour, size, or price	✓	✓
Browser	SEE: Web browser	-	✓
Code	The commands that a computer can run	✓	✓
Code snippet	A section of a program viewed in isolation	✓	✓
Command	A single instruction that can be used in a program to control a computer	✓	✓
Computer	A programmable machine that accepts and processes inputs and produces outputs (input, process, output; IPO)	✓	✓
Computer Network	A group of interconnected computing devices	-	✓
Computer System	A combination of hardware and software that can have data input to it, which it then processes and outputs. It can be programmed to perform a variety of tasks.	-	✓
Condition	A statement that can be either True or False	-	✓
Condition-controlled loop	SEE: Loop (condition-controlled)	-	✓
Count-controlled loop	SEE: Loop (count-controlled)	-	✓
Data	A letter, word, number etc. that has been collected for a purpose, but stored without context	✓	✓
Data Set	A collection of related data	-	✓
Debugging	The process of finding and correcting errors in a program	✓	✓
Decompose	To break down a task into smaller, more achievable steps	-	✓
Digital Device	A computer or a device with a computer inside that has been programmed for a specific task	-	✓
Domain Name	The part of a website's URL that is user friendly and identifies that it is under the control of a particular person or organisation e.g. raspberrypi.org	-	✓
Execute (run)	SEE: Run	-	✓
Hardware	The physical parts of a computer system	-	✓
HTML (HyperText Markup Language)	A standardised language used to define the structure of web pages	-	✓
Hyperlink	(Also: link, weblink) Text or media that when clicked, takes the user to another specified location (URL)	-	✓
Infinite Loop	SEE: Loop (infinite)	-	✓
Information	Data put into a context that provides meaning	✓	✓
Information Technology	The study, use, and development of computer systems for storing, processing, retrieving, and sending information	✓	-

Input	Data that is sent to a program to be processed	-	✓
Input Device	A piece of hardware used to control, or send data to, a computer	-	✓
Internet	The global system of interconnected computer networks	-	✓
Loop	(Count-controlled, condition-controlled, or infinite) Commands that repeatedly run a defined section of code	-	✓
Loop (condition-controlled)	A command that repeatedly runs a defined section of code until a condition is met	-	✓
Loop (count-controlled)	A command that repeatedly runs a defined section of code a predefined number of times	-	✓
Loop (infinite)	A command that repeatedly runs a defined section of code indefinitely	-	✓
Nework	SEE: Computer network	-	✓
Object	Something that can be named and has other attributes (properties), which can be labelled	✓	✓
Object	Something that is uniquely identifiable and has attributes	-	✓
Output	The result of data processed by a computer	-	✓
Output Device	A piece of hardware that is controlled by outputs from a computer	-	✓
Procedure	A named set of commands that can be called multiple times throughout a program. This type of subroutine does not return a value.	-	✓
Process	A program, or part of a program, that is running on a computer	-	✓
Program	A set of ordered commands that can be run by a computer to complete a task	✓	✓
Property (attribute)	A word or a phrase that can be used to describe an object such as its colour, size, or price	✓	-
Repetition	Part of a program where one or more commands are run multiple times in a loop	-	✓
Router	A device that manages the flow of data between computer networks	-	✓
Run (execute)	To action the commands in a program	✓	✓
Selection	Part of a program where if a condition is met, then a set of commands is run	-	✓
Server	A networked computer that manages, stores, and provides data such as files to other computers	-	✓
Software	The programs used to control computers and perform specific tasks	-	✓
Stored (data)	Data kept digitally so that it can be accessed by a computer	-	✓
Subroutine	A named sequence of commands designed to perform a specific task	-	✓

Switch (network switch)	A device that manages the flow of data packets within a computer network	-	✓
Technology	The use of scientific knowledge for practical purposes	✓	-
URL (Uniform Resource Locator)	The address of a file on the internet	-	✓
Variable	A named piece of data (often a number or text) stored in a computer's memory, which can be accessed and changed by a computer program	-	✓
Web	SEE: WWW (World Wide Web)	-	✓
Web address	SEE: URL (Uniform Resource Locator)	-	✓
Web Browser	A program used to view, navigate, and interact with web pages	-	✓
Web Page	A HTML document viewed using a web browser	-	✓
Website	A collection of interlinked web pages, stored under a single domain	-	✓
WiFi	A technology that allows devices to wirelessly access a network and transfer data	-	✓
WAP (Wireless Access Point)	A network device that allows wireless computing devices to connect to a wired network	-	✓
WWW (World Wide Web)	A service provided via the internet that allows access to web pages and other shared files	-	✓