



Computing is split into three **strands**: **Computer Science** (programming or coding, and problem solving); **Information Technology** (using spreadsheets, creating presentations and manipulating graphics); and **Digital Literacy** (encompassing e-safety and teaching pupils how to select the most appropriate digital content).

EYFS	The early learning goal states that by the end of EYFS children can recognise that a range of technology is used in places such as homes and schools.	
Y1 Safer Internet (Digital Literacy)	Knowledge and Understanding <ul style="list-style-type: none"> • To know that websites sometimes include pop-ups that take them away from the main site. • To know they must tell a trusted adult immediately if anyone tries to contact them via the internet. • To know that personal information should not be shared online. 	Skills <ul style="list-style-type: none"> • To follow the school's safer internet rules. • To know how to act if they find something inappropriate online or something they are unsure of. • To know how to recognise advertising on websites and learn to ignore it.
Y2 Safer Internet (Digital Literacy)	<ul style="list-style-type: none"> • To understand the different methods of communication e.g. email, online forums • To know you should only open an email from a known source. • To begin to evaluate websites and know that everything on the internet is not true. • To know that it is not always possible to copy some text and pictures from the internet. 	<ul style="list-style-type: none"> • To follow the school's safer internet rules. • To be able to use a password to access the secure network. • To know how to use the internet for learning and communicating with others. • To send and receive email as a class.

Year 1	Algorithm and Programs (Computer Science) <ul style="list-style-type: none"> To be able to create a simple series of instructions – left and right. To be able to record their routes. To understand forwards, backwards, up and down. To put two instructions together to control a programmable toy (Bee-bot). To begin to plan and test a Bee-bot journey. 	Data retrieving and organising (Information Technology) <ul style="list-style-type: none"> To be able to capture images with a camera. To be able to print out a photograph with help. To be able to record a sound and play it back. To enter information into a template to make a graph. To be able to talk about the results shown in a graph. 	Communicating (Information Technology) <ul style="list-style-type: none"> To be able to recognise what an email address looks like. To be able to join in sending a class email. To be able to use the @ key and type an email address. To be able to word process ideas using a keyboard. To use the spacebar, back space, enter, shift and arrow keys. To be able to print out a page from the internet.
Year 2	Algorithm and Programs (Computer Science) <ul style="list-style-type: none"> To be able to predict the outcomes of a set of instructions. To use right angle turns. To use the repeat commands. To be able to test and amend a set of instructions. To write a simple program and test it. To be able to predict what the outcome of a simple program will be. 	Data retrieving and organising (Information Technology) <ul style="list-style-type: none"> To be able to find information on a website. To be able to click links in a website. To be able to print a web page to use as a resource. To be able to experiment with text, pictures and animation to make a simple slide show. To be able to use the shape tools to draw. 	Communicating (Information Technology) <ul style="list-style-type: none"> To be able to send and reply to messages sent by a safe email partner (within school). To be able to word process a piece of text. To be able to insert/delete a word using the touchpad and arrow keys. To be able to highlight text to change its format e.g. B, I, U.

Y3 Safer Internet (DL)	Knowledge and Understanding <ul style="list-style-type: none"> • To be responsible for what we share online. • To keep our personal identity personal – not sharing full names, addresses, passwords, personal details. • The importance of changing passwords. • That not everyone may be honest online. • To discuss the positive and negative impact of the use of ICT in their own lives. 	Skills <ul style="list-style-type: none"> • To follow the school’s safer internet rules • To be able to make safe choices about use of technology. • To know how to create strong passwords and manage them so that they remain strong.
Y4 Safer Internet (DL)	Knowledge and understanding <ul style="list-style-type: none"> • Photos can only be shared with the owner’s permission. • To find report/ block buttons on commonly used websites. • That spending too long using technology can have negative health consequences. • To be responsible for our own actions online. • Children recognise the need to choose age-appropriate games to play on their devices, and when to limit use. • Children recognise the need to protect their devices from viruses. • Children understand that any personal information they put online can be seen and used by others. 	Skills <ul style="list-style-type: none"> • To follow the school’s safer internet rules • To be able to make safe choices about use of technology. • To use technology in ways which minimises risk, e.g. responsible use of online discussions, etc.
Y5 Safer Internet (DL)	Knowledge and understanding <ul style="list-style-type: none"> • To recognise why people may publish content that is not accurate and understand the need to be critical evaluators of content. • To understand that some material on the internet is copyrighted and may not be copied or downloaded. • To understand that some messages may be malicious and know how to deal with this. 	Skills <ul style="list-style-type: none"> • To follow the school’s safer internet rules • To be able to make safe choices about use of technology. • To independently, and with regard for e-safety, select and use appropriate communication tools to solve

	<ul style="list-style-type: none"> • To understand the benefits of developing a 'nickname' for on line users. • To know that content online is extremely difficult to remove. • To know what to do if they discover something malicious or inappropriate. 	<p>problems by collaborating and communicating with others within and beyond school.</p> <ul style="list-style-type: none"> • To competently use the internet as a search tool. • To be able to reference information sources. • To use appropriate strategies for finding, critically evaluating, validating and verifying information, e.g. using different keywords, skim reading to check relevance of information, cross checking with different websites or other non ICT resources. • To use knowledge of the meaning of different domain names and common website extensions (e.g. .co.uk; .com; .ac; .sch; .org; .gov; .net) to support validation of information.
Y6 Safer Internet (DL)	<p>Knowledge and understanding</p> <ul style="list-style-type: none"> • Children recognise their own right to be protected from the inappropriate use of technology by others and their responsibility to report concerns. • Children understand how to use social networking websites appropriately, keeping an adult informed about their online activity. They make good choices when they present themselves online. • Children recognise the appropriate online tools to collaborate and communicate with others, understanding how to protect themselves from cyberbullying or causing hurt to others, especially when using social networks. • Children understand the need to respect the rights of other users, and understand their own responsibility for information that is shared and how it may impact on others. 	<p>Skills</p> <ul style="list-style-type: none"> • To follow the school's safer internet rules • To be able to make safe choices about use of technology. • To use technology in ways which minimises risk, e.g. responsible use of online discussions, etc. • To use technology in ways which minimises risk, e.g. responsible use of online discussions, etc. • To independently, and with regard for e-safety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school.

Year 3	Algorithms and Programs (CS)	Data retrieving and organising (IT)	Communicating (IT)	Using the Internet To find relevant information by browsing a menu. (IT)	Databases (IT)	Presentation (IT)	Topics
	<p>To experiment with variables to control models.</p> <p>To use 90 degree and 45 degree turns.</p> <p>To be able to give an on-screen robot directional instructions.</p> <p>To draw a square and other shapes on screen using commands.</p> <p>To be able to write more complex programs.</p>	<p>To review images on a camera and delete unwanted images.</p> <p>To be able to download images from a camera into files on the computer.</p> <p>To be able to use photo editing software to crop photos and add effects.</p> <p>To manipulate sound when using simple recording story boarding</p>	<p>To be able to use the email address book.</p> <p>To open and send an attachment.</p>	<p>To search for an image, then copy and paste it into a document.</p> <p>To be able to use 'Save picture as' to save an image to the computer.</p> <p>To be able to copy and paste text into a document.</p> <p>To begin to use note making skills to decide what text to copy.</p>	<p>To be able to input data into a prepared database.</p> <p>To sort and search a database to answer simple questions.</p> <p>To be able to use a branching database.</p>	<p>To create a presentation that moves from slide to slide and is aimed at a specific audience.</p> <p>To be able to combine text, images and sounds and show awareness of audience.</p> <p>To know how to manipulate text, underline text, centre text, change font and size and save text to a folder.</p>	<p>Coding</p> <p>Online Safety</p> <p>Spreadsheets</p> <p>Touch typing</p> <p>Email including email safety</p>

Year 4	Algorithms and Programs (CS)	Data retrieving and organising (IT)	Communicating (IT)	Using the Internet To find relevant information by browsing a menu. (IT)	Databases (IT)	Presentation (IT)	Topics
	<p>To be able to use repeat instructions to draw regular shapes on screen, using commands.</p> <p>To be able to experiment with variables to control models.</p> <p>To make turns specifying the degrees.</p> <p>To give an onscreen robot specific directional instructions that takes them from x to y.</p> <p>To be able to make accurate predictions about the outcome of a program they have written.</p>	<p>To capture images using webcams, screen capture, scanning, visualiser and internet?</p> <p>To be able to choose images and download into a file.</p> <p>To download images from the camera into files on the computer.</p> <p>To be able to copy graphics from a range of sources and paste into a desktop publishing program.</p>	<p>To be able to appreciate the benefits of ICT to send messages and to communicate.</p> <p>To use the automatic spell checker to edit spellings.</p>	<p>To be able to use a search engine to find a specific website.</p> <p>To use note-taking skills to decide which text to copy and paste into a document.</p> <p>To use tabbed browsing to open two or more web pages at the same time.</p> <p>To open a link to a new window.</p> <p>To be able to open a document (PDF) and view it.</p>	<p>To be able to input data into a prepared database.</p> <p>To sort and search a database to answer simple questions.</p> <p>To be able to recognise what a spreadsheet is.</p> <p>To use the terms 'cells', 'rows' and 'columns'.</p> <p>To know how to enter data, highlight it and make bar charts</p>	<p>To be able to create a lengthy presentation that moves from slide to slide and is aimed at a specific audience.</p> <p>To be able to insert sound recordings into a multimedia presentation.</p> <p>To know how to manipulate text, underline text, centre text, change font and size and save text to a folder.</p>	<p>Topics Coding</p> <p>Online Safety</p> <p>Spreadsheets</p> <p>Writing for different audiences</p> <p>Logo</p> <p>Animation</p> <p>Effective searching</p> <p>Hardware Investigators</p>

Year 5	Algorithms and Programs (CS)	Data retrieving and organising (IT)	Communicating (IT)	Using the Internet (IT)	Databases (IT)	Presentation (IT)	Topics Coding
	<p>To be able to combine sequences of instructions and procedures to turn devices on or off.</p> <p>To understand input and output.</p> <p>To be able to use an ICT program to control an external device that is electrical and/or mechanical.</p> <p>To use ICT to measure sound or light or temperate using sensors.</p> <p>To be able to explore 'What is' questions by playing adventure or quest games.</p> <p>To write programs that have sequences and repetitions.</p>	<p>To be able to listen to streaming audio such as online radio.</p> <p>To download and listen to podcasts.</p> <p>To be able to produce and upload a podcast.</p> <p>To manipulate sounds using Audacity.</p> <p>To select music from open sources and incorporate it into multimedia presentations.</p> <p>To be able to work on simple film editing.</p>	<p>To be able to use instant messaging to communicate with class members.</p> <p>To conduct a video chat with someone elsewhere in the school or in another school</p>	<p>To use a search engine using keyword searches.</p> <p>To be able to compare the results of different searches.</p> <p>To decide which sections are appropriate to copy and paste from at least two web pages.</p> <p>To be able to save stored information following simple lines of enquiry.</p> <p>To download a document and save it to the computer.</p>	<p>To be able to create a formula in a spreadsheet and then check for accuracy and plausibility.</p> <p>To search databases for information using symbols such as = > or</p>	<p>To use a range of presentation applications.</p> <p>To be able to consider audience when editing a simple film.</p> <p>To know how to prepare and then present a simple film.</p> <p>To use ICT to record sounds and capture both still and video images.</p> <p>To make a home page for a website that contains links to other pages.</p> <p>To capture sounds, images and video.</p> <p>To use the word count tool to check the length of a document.</p> <p>To be able to use bullets and numbering tools.</p>	<p>Online Safety</p> <p>Spreadsheets</p> <p>Databases</p> <p>Game creator 3D modelling</p> <p>Concept maps</p>

Year 6	Algorithms and Programs (CS)	Data retrieving and organising (IT)	Communicating (IT)	Using the Internet (IT)	Databases (IT)	Presentation (IT)	Topics
	<p>To explain how an algorithm works.</p> <p>To be able to detect errors in a program and correct them.</p> <p>To use an ICT program to control a number of events for an external device.</p> <p>To be able to use ICT to measure sound, light or temperature using sensors and interpret the data.</p> <p>To explore 'what if' questions by planning different scenarios for controlled devices.</p> <p>To use input from sensors to trigger events.</p> <p>To check and refine a series of instructions</p>	<p>To explore the menu options and experiment with images (colour effects, options, snap to grid, grid settings etc.)</p> <p>To add special effects to alter the appearance of a graphic.</p> <p>To be able to 'save as' gif wherever possible to make the file size smaller (for emailing or downloading).</p> <p>To make an information poster using their graphics skills to good effect.</p>	<p>To conduct a video chat with people in another country or organisation.</p>	<p>To be able to contribute to discussions online.</p> <p>To use a search engine using keyword searches.</p> <p>To use complex searches using such as '+' 'OR' "Find the phrase in inverted commas".</p>	<p>To collect live data using data logging equipment.</p> <p>To identify data error, patterns and sequences.</p> <p>To use the formulae bar to explore mathematical scenarios.</p> <p>To be able to create their own database and present information from it.</p>	<p>To present a film for a specific audience and then adapt same film for a different audience.</p> <p>To be able to create a sophisticated multimedia presentation.</p> <p>To confidently choose the correct page set up option when creating a document.</p> <p>To confidently use text formatting tools, including heading and body text.</p> <p>To use the 'hanging indent' tool to help format work where appropriate (e.g. a play script).</p>	<p>Coding Online</p> <p>Safety</p> <p>Spreadsheets</p> <p>Blogging</p> <p>Text adventures</p> <p>Networks</p> <p>Quizzing</p>

