

Computing Progression



	EY	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing Systems and Networks	Understand that computers and devices are made up of different components.		<p>Recognise common uses of digital technology beyond schools.</p> <p>Recognise how information technology benefits people.</p>	<p>Explain how networks for digital devices can be used to share information.</p> <p>Explain how the concepts of input, process and output are fundamental to all digital devices.</p>	<p>Describe how networked devices connect to make up the internet.</p> <p>Explain how websites can be shared, stored, accessed and added to on the World Wide Web.</p> <p>Frame questions and identify key word searches to search for information on the internet.</p>	<p>Explain how computers can be connected together to form systems.</p> <p>Explain the role of computer systems in our lives.</p> <p>Explain how information is shared over the internet.</p>	<p>Describe how search engines select results.</p> <p>Explain how search results are ranked and why the order of results is important.</p>
	Core Skills						
Digital Literacy	<p>Open and use simple apps on an ipad</p> <p>Use a mouse or finger to make something happen on the screen e.g. paint, click on an object.</p> <p>Use a digital device to scan a QR code</p> <p>Use a digital device to capture photos and videos</p>	<p>Switch and log on and off a computer.</p> <p>Use a mouse to click and drag, open a program and create a picture.</p> <p>Identify, find and use the following keys accurately: letters, numerals, shift (to create a capital letter).</p> <p>Type their name and simple words on a computer.</p> <p>Save work to a file with support.</p>	<p>Log onto a computer using a unique username and password.</p> <p>Make corrections or undo changes.</p> <p>Highlight and select text to make changes e.g. colour, size, font, bold, italics</p> <p>Using both hands, type and edit sentences on a computer.</p> <p>Identify, find and use the following keys accurately: space</p>	<p>Create and name folders.</p> <p>Navigate file pathways to save and open work.</p> <p>Save documents into different formats.</p> <p>Use the cut, copy and paste function.</p>			<p>Create and manage their own passwords for logging onto a computer (and other sites or applications where applicable).</p>

	Open work from a file with support.	bar, enter and backspace. Save work to a file. Open work from a file. Print work using the drop down menu.				
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**To approach computing including problem solving situations with persistence, resilience and confidence.
Children who enhance their computing skills by building on initial tasks to further strengthen their understanding and knowledge.**

Multimedia

<p>Music: Use music software to explore and arrange digital sounds</p> <p>Painting: Use a range of appropriate paint tools and colours to paint a digital picture</p>	<p>Painting Select from a range of appropriate paint tools and colours to paint a digital picture.</p> <p>Pictograms Use digital pictograms to answer questions. Use collected data to create a pictogram on a digital device for a purpose.</p>	<p>Photography Use a digital device to compose and capture photos for a purpose. Use digital tools to make effective changes to photos.</p> <p>Music Record and add sound to digital pictures or text. Use music software to arrange digital sounds to create and play a composition.</p>	<p>Desktop Publishing Plan and create a presentation for a purpose, which includes text, images/photos, transition effects and hyperlinks. Import images from a file or the internet into their work. Resize, crop and rotate images/photos effectively. Effectively layout and edit the content in a presentation to engage and communicate to the audience more clearly.</p> <p>Animation Plan, create, review and improve an effective stop frame animation.</p>	<p>Image/Photo editing Change the composition of an image/photo for a purpose. Use retouching tools to improve images and consider which tools are appropriate for retouching.</p> <p>Databases Compare paper and computer-based databases Explain what a 'field' and 'record' is in a database. Outline how 'AND' and 'OR' can be used to refine data selection. Apply knowledge of a database to ask and answer real-world questions.</p>	<p>Vector Drawing Create a vector drawing by combining shapes in layers. Use zoom, resize and modification tools to achieve a desired effect.</p> <p>Spreadsheets Answer questions from an existing data set. Build a data set in a spreadsheet application. Construct formulae in spreadsheets (e.g. =SUM) to produce calculated data for a purpose. Use spreadsheets to create graphs for a purpose.</p>	<p>Web Page Creation Recognise the features and structure of a web page. Plan, create, review and improve an effective website. Plan and create multiple webpages with clear navigation paths, using hyperlinks to link pages together.</p>
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Online Safety

Self Image and Identity						
Describe that they are allowed to say if they don't like something and who they could tell	Understand when and how to speak to a trusted adult if they don't like something online.	Give examples of issues online and how they might get help.	Take appropriate measures to protect their own online identity.	Understand that people may have a different online identity to that in real life.	Understand how and why their identity can be copied by other users.	Understand the negative consequence of sharing nude selfies.
Online Relationships						
	Understand how to use the internet (with support) to communicate with people they know respectfully.	Understand how to use the internet to communicate with people they don't know online.	Understand the risks of communicating with someone they don't know online.	Understand how to respectfully communicate with and about others online.	Understand how to make a positive contribution to their online community.	Understand how to be mindful of others' feelings in different contexts online. Understand how and why people that they communicate with online may try to influence others negatively.
Online Reputation						
Identify some of the types of things that can be put online e.g. photos, videos but not an apple or colouring book	Describe what information they should not put online.	Understand that information online can stay there forever.	Understand what personal information is safe and unsafe to share online.	Understand that fake personal information can be created, copied and shared online.	Understand that judgements are made about people based on their online information.	Understand how to create a positive online reputation.
Online Bullying						
Describe ways in which some people can be unkind online and know how this can make others feels.	Describe how to behave online in ways that do not upset others.	Understand what online bullying can look like and some strategies for dealing with it.	Understand how technology can be used for online bullying.	Understand the impact of online bullying and the actions to take.	Understand when and how to get help for someone that is being bullied online.	Understand how to capture evidence of online bullying and how to report it.
Managing Online Information						
Begin to understand how to use the internet to find things out and identify devices which can be used	Understand how to find things out by typing in a simple keyword in a search engine.	Understand that not all information online is true.	Understand how to make accurate online searches.	Critically evaluate whether or not information online is true.	Critically evaluate whether false information online is intentional or unintentional.	Use strategies to analyse and evaluate the validity of information online.
Health, Well-being and Lifestyle						
Identify rules to keep them safe and healthy when using technology.	Identify rules to keep them safe when using technology.	Identify guidelines for using technology safely in different settings.	Understand how spending too much time using technology can have	Identify strategies to limit their time on technology.	Understand the negative impact that technology can have on their sleep.	Understand the purpose of systems that regulate age-related content.

				a negative impact on them.			
Privacy and Security							
Identify some types of personal information that need to be private	Identify types of personal information that need to be private.	Explain what passwords are used for and to use them.	Know who they should and shouldn't be sharing information with and why.	Understand the measures to take to prevent people accessing their data.	Understand how some apps and games take payment for additional information.	Understand ways in which data can be kept private and secure.	
Copyright and Ownership							
Understand the work they create using technology belongs to them.	Explain why work they create using technology belongs to them.	Recognise that content on the internet may belong to other people.	Understand the issues caused by copying someone's work without permission.	Identify whether or not they have the right to reuse content from the internet.	Demonstrate how to make references to and acknowledge sources they have used from the internet.	N/A	

Programming	<p>Floor Robots Explore floor robots.</p> <p>Match a command to an outcome</p> <p>Begin to combine directional commands to make a sequence</p>	<p>Floor Robots (or/and a digital representation) Match a command to an outcome.</p> <p>Use logical reasoning to predict the outcome of a sequence of commands.</p> <p>Combine directional commands to make a sequence.</p> <p>Design and create an algorithm to meet a specific goal.</p> <p>Test and debug a simple program.</p>	<p>Scratch Junior Identify and explain that a sequence of commands has a start.</p> <p>Match two sequences of commands with the same outcome.</p> <p>Change the outcome of a sequence of commands.</p> <p>Create a program (by deciding which 'blocks' to use and building a sequence) to meet a given design.</p> <p>Design and create a program using their own design.</p> <p>Test, debug and improve simple programs created by others and begin to find and correct errors in their own programs.</p>	<p>Scratch 3 Recognise that a range of objects (e.g. Sprites, backdrops) in a programming environment have attributes linked to them.</p> <p>Recognise how different commands are represented in a programming environment (as blocks in Scratch).</p> <p>Control objects in a programming environment using a sequence of connected commands.</p> <p>Explain how the objects in a program will respond exactly to the code.</p> <p>Use a variety of inputs (command blocks) to control a variety of outputs (e.g. sound, motion, speech).</p> <p>Test, evaluate, debug and improve programmed sequences created by others and their own.</p>	<p>Scratch 3/Crumbles Decompose programs to understand that repetition means repeating a sequence a certain number of times or until a specific result is achieved.</p> <p>Design and create programs that use repetition including those that control a physical system (<i>Crumbles - Sparkles - link to DT – fairground project</i>).</p> <p>Test, evaluate, debug and improve their own programmed sequences that use repetition.</p>	<p>Scratch 3/Crumbles Decompose programs to understand that selection uses conditions to control the flow of a sequence.</p> <p>Design and create programs that use selection to direct the flow of a program ('if' and 'if... else' statements) including those that control a physical system (<i>Crumbles</i>).</p> <p>Test, evaluate, debug and improve their own programmed sequences that use selection.</p>	<p>Scratch 3/Crumbles Decompose programs that include variables that can be changed to predict the outcome of a sequence.</p> <p>Design and create programs that include variables including those that control a physical system (<i>Crumbles - link to DT Mountain Buggy project</i>).</p> <p>Test, evaluate, debug and improve their own programmed sequences that include variables.</p>
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