



CURRICULUM PROGRESSION – Computing

	<u>Reception</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
E-Safety	Recognise the difference between a friend and stranger Explain why we have rules	I can give examples of some E-Safety rules and why they keep us healthy and safe	I can explain why I keep passwords a secret I can explain why E-Safety rules are important	- Use technology safely and respectfully, keeping personal information private - Use technology safely and recognise acceptable and unacceptable behaviour	- Use technology responsibly and understand that communication online may be seen by others - Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies	- Understand the need to only select age appropriate content	- Use technology respectfully and responsibly and identify a range of ways to report concerns about content and contact in and out of school
Programming	Understand a series of instructions Create a set of instructions	Writing short algorithms and programs for floor robots, and predicting program outcomes. Designing and programming the movement of a character on screen to tell stories	-I can use algorithms to program a floor robot and create online programmes -I can create sequences for different outcomes -I can begin to test and debug different programs	- I can order and explain a sequence, and implement an algorithm as a code - I can combine sound commands and describe the objects I need - I can create a program for a design and choose design choices	- I can explain what debugging is - I can explain what coding is - I can give an example of a programming language - I can explain why a programmer would re-use existing code snippets	- I can explain what debugging is - I can explain why engineers test their code - I can explain the use of an "if" condition - I can explain what an infinite loop is and how it is used	- I can explain what debugging is - I can give real world examples of programming - I can explain how the "if <" statement world work - I can explain why it is important to test code



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<p>Computing networks Computing systems</p>	<p>Explore an old typewriter and mechanical toys Use a beebot Play games on an interactive whiteboard</p>	<p>- I can locate technology around the classroom and explain how technology helps us - I can use different parts of a computer and use a mouse and keyboard for different purposes</p>	<p>-I can describe different uses of computers and identify these as a part of I.T -I can sort and identify different parts of I.T</p>	<p>-I can explain what an output and input are -I can explain that a computer network is made up of different connections and describe how this is useful</p>	<p>-I can demonstrate how information is shared across the internet and explain why a network needs protecting - I can describe how the internet is used for many purposes - I can describe what the World Wide Web is, how to access it and the different risks on it</p>	<p>-I can describe that a compute has inputs, outputs and processes - I can identify different parts of a computer system and explain the benefits of these - I can identify how the internet allows group collaboration and how this can be done safely</p>	<p>- I can compare different search results and refine my search - I can explain how search results are ordered and the criteria needed for these -I can explain how search engines are limited - I can decide how I should communicate safely online and what I should share</p>
<p>Creating media</p>	<p>Take a photograph with a camera or iPad</p>	<p>- I can use a variety of different tools online and explain what these have made - I can imitate an artist online and decide whether I prefer drawing on a computer or on paper</p>	<p>- I can describe music as a sequence of notes and create a rhythm pattern - I can create a musical pattern on a computer - I can save and reopen my work - I can evaluate my work and explain how I can make it better</p>	<p>- I can describe the difference between texts and images and explain the advantages and disadvantages of using them -I can edit text for a given purpose and choose a layout for a given purpose - I can identify uses of desktop</p>	<p>- I can identify different digital devices and evaluate how these work when making a podcast - I can identify digital files - I can choose suitable sounds for a podcast and edit audio sounds</p>	<p>- I can compare and identify different features of a video - I can evaluate and make a variety of changes to a video - I can recognise that my choices when making a video will affect the final outcome</p>	<p>- I can compare different websites and create a webpage for a specific purpose - I can identify copyright free images and explain how I can use them</p>



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		<ul style="list-style-type: none"> - I can format text and describe whether it is bold, italic or underlined - I can decide if I prefer typing or writing and explain why 		<ul style="list-style-type: none"> publishing and explain why this is useful in the real world 			<ul style="list-style-type: none"> - I can use hyperlinks - I can describe why navigation paths are useful - I can evaluate the user experience of a website and explain the implication of linking a website to others
Data and Information	<ul style="list-style-type: none"> -Count objects, actions and sounds -Link a number symbol with its value -Continue, copy and recreate patterns 	<ul style="list-style-type: none"> - I can say what a leader is - I can say how we group different objects - I can say why grouping things are important - I can say how I would record my groups 	<ul style="list-style-type: none"> -I can record and enter data into a computer, using a tally chart to help me -I can use "more than/less than" and "most/least" questions - I can make a pictogram and use a common attribute to help me 	<ul style="list-style-type: none"> - I can explain what data is - I can explain what a branching data base is - I can explain why it is important to use yes/no questions in a branching database - I can explain what a branching database does 	<ul style="list-style-type: none"> - I can explain what data is - I can consider how data can be sorted - I can explain what a data logger can do and why it is useful - I can think about what is important to do with data 	<ul style="list-style-type: none"> - I can explain what data is - I can explain what a record is - I can explain how computers sort information - I explain what an "And" command can do when searching for data 	<ul style="list-style-type: none"> - I can explain what data is - I can explain what a cell is - I can explain what a formula is - I can show the answer to a question on different forms of data