



Computing Curriculum Milestones

Connecting Stone	Big Idea (NC links)	Year R	Years 1 & 2	Years 3 & 4	Years 5 & 6
E-Safety 	Understand the importance of and practise how to stay safe online.	Understand how to stay safe online.	<i>Define, identify and explain the importance of a password for online safety</i> <i>Use technology safely and respectfully, understand how to achieve this and highlight to an adult when I see something worrying online</i>	<i>Define, identify and explain what makes a password secure</i> <i>Recognise, apply knowledge of and explain how to be safe and respectful online</i> <i>Know, articulate and reflect upon the fact that anything I post online can be seen by others.</i>	<i>Explain, apply knowledge of and investigate the consequences of sharing too much information online</i> <i>Recognise, examine and measure the impact of acceptable/unacceptable online behaviours</i> <i>Describe, classify and evaluate the use and effect of digital content on the user</i>



			<i>Recognise, explain and debate why I should go online for a short amount of time</i> <i>Recognise, apply knowledge of and compare age-appropriate websites</i> <i>Identify, agree on and justify sensible e-safety rules</i>	<i>Recognise, evaluate and prove what "too long" online looks like.</i> <i>With parental support, identify, explain why and validate what an age-appropriate game is for me.</i>	<i>Identify, apply knowledge of and appraise a range of ways to report concerns about digital content and keep my devices safe</i>
technology 	Be responsible, competent and confident in the use of technology.	Have fine motor skills to use a range of hardware and components competently, safely and confidently.	<i>Recognise, compare and investigate the way technology and its benefits is used in our lives</i>	<i>Name, explore and explain the document processes and their origin (save and retrieve etc.)</i>	<i>Describe, classify and evaluate the effectiveness of the different parts of the internet and the purpose they have.</i>



			<i>Use, apply knowledge of and appraise links to websites to find information</i> <i>Know, explain and discuss how online content has been created by other people.</i> <i>Know, compare and prove the differences between the online and physical world.</i>	<i>Recognise, use and explain the parts of a computer</i> <i>Use, classify and appraise the reliability of information I find on the internet</i> <i>Recognise, apply knowledge of and evaluate the use of appropriate images found online.</i>	<i>Use, compare and review different appropriate online communication tools for different purposes.</i> <i>Use, evaluate and grade search engines to find appropriate information and check reliability</i> <i>Recognise, evaluate and prove the reliability of information I find on the world wide web.</i> <i>Understand, explain and investigate the meaning of copyright and find out who online information belongs to.</i>
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					<i>Recognise, use and evaluate the effectiveness of hyperlinks in the online world</i>
multimedia 	Understand and select appropriate multimedia.	Use new vocabulary and ask questions to ensure there is understanding of what has been said. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.	<i>Experiment with, select and adapt different technology tools to present my ideas</i> <i>Understand, use and adapt the use of keyboards on a device</i> <i>Begin to use, apply knowledge of and explain file functions on a device (save and retrieve etc)</i>	<i>Apply knowledge of, review and adapt different effects with different technology tools, including text</i> <i>Create, modify and present documents for a particular purpose (text, graphics and sound).</i> <i>Know, develop and create appropriate keyboard</i>	<i>Identify, use and evaluate the effectiveness of editing tools to refine my work.</i> <i>Recognise, apply knowledge of and appraise learnt skills when using unfamiliar technology.</i> <i>Identify, discuss and evaluate audience atmosphere and structure when planning a particular outcome.</i>



			<i>Name, explain and discuss the use of online tools to share ideas with others.</i>	<i>commands to support programs.</i> <i>Explore, experiment with and evaluate the effectiveness of new media to create atmosphere when presenting.</i> <i>Evaluate, improve and reflect upon the effectiveness of mine and my peers' learning</i> <i>Select, apply knowledge of and evaluate appropriate tools to share my learning online.</i>	<i>Locate, implement and critique an appropriate online/offline tool to create and share ideas.</i> <i>Comment on, appraise and measure the effectiveness of my work and the work of others in the digital world.</i>
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coding 	Use the language and procedures of computer program effectively.	Listen to and follow sequenced instructions.	<i>Give, act out and compose instructions to a friend to move around.</i> <i>Identify, implement and evaluate a sequence of commands and begin to refer to this an algorithm.</i> <i>Experiment with, predict and evaluate an algorithm.</i> <i>Observe, examine and evaluate a program to debug it effectively.</i>	<i>Identify, implement and program commands into a sequence to achieve a desired outcome.</i> <i>Outline, implement and experiment with my program and recognise when there is a problem and I need to debug it.</i> <i>Recognise, implement and test a variety of tools to create a program.</i> <i>Locate, choose and experiment with a</i>	<i>Deconstruct a problem into smaller parts, design an algorithm for a specific outcome and use this to write a program.</i> <i>Select, test and evaluate the effectiveness and efficiency of my algorithm.</i> <i>Recognise, implement and reflect on the effectiveness of 'if' and 'then' commands to select an action.</i> <i>Recognise, examine and comment on how a computer model can</i>



				sensor to detect a change which can select an action within my program. Select, present and evaluate the algorithm I will need for a simple task. Identify, apply and test an efficient procedure to simplify a program. Recognise, link and measure the impact of using algorithms to help solve problems in other learning such as	provide information about a physical system. Recognise, apply knowledge of and detect when I need to use a variable/operators to achieve a required output and to stop a program. Identify, apply and facilitate different inputs to control a device or onscreen action and predict what will happen. Recognise, choose and test a variable to increase programming possibilities.
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				maths, science and DT.	
data handling 	Process a range of information effectively.	Articulate my thoughts and ideas in well-formed sentences. Use talk to help work out problems and organise thinking and activities, and explain how things work and why they happen.	<i>Identify, choose and assess the different ways in which information can be collected/recorded e.g. camera, sound recorder.</i> <i>Identify, organise and manage different kinds of information and present it to others.</i> <i>Gather, experiment with and compare information on a pictograph and talk about what I have found out.</i>	<i>Categorise, structure and manage data in different ways.</i> <i>Plan, create and search a ready-made database to answer questions.</i> <i>Identify, organise and present data to help me answer a question.</i> <i>Identify, examine and evaluate when collected data may be inaccurate.</i>	<i>Collect and record and evaluate data on a spreadsheet.</i> <i>Select, examine and evaluate the most effective tool to collect data for my investigation.</i> <i>Plan, prepare and implement the process needed to investigate the world around me.</i> <i>Search, choose and navigate a database using different operators to refine my search.</i>



			<i>Begin to use, apply knowledge of and experiment with understand branching databases.</i> <i>Discover, choose and explain what kind of information I could use to help me investigate a question.</i>	<i>Use, monitor and record a data logger information using a data logger.</i>	<i>Find, examine and comment on mistakes in data and suggest how it could be checked.</i> <i>Collect, review and present the data I collect for accuracy and plausibility.</i>
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