

Computing Whole School Progression of Skills

Subject Content		EYFS	Year 1	Year 2	Year 3
Computer Science	Algorithms, problem solving and programming	<ul style="list-style-type: none"> ▪ Identify algorithms used in everyday life. ▪ Begin to sequence instructions. ▪ Recognise, use and understand directional language. ▪ Perform a simple program on the floor robot. ▪ Recognise that a string of instructions or commands placed together can create a simple program. ▪ Record the program used using symbols. 	<ul style="list-style-type: none"> ▪ Describe algorithms as sequences of instructions in everyday contexts. ▪ Plan a sequence of steps to solve real-life problems. ▪ Program floor robots using sequences of instructions (using directional language) to implement an algorithm. ▪ Create programs for floor robots and sprites on the screen using a number of steps in order before pressing the Go button. ▪ Begin to use conditional language like “if” and “when.” 	<ul style="list-style-type: none"> ▪ Describe algorithms as sequences of instructions or sets of rules in everyday contexts; understand the importance of order and accuracy of these. ▪ Program on screen using sequences of instructions to implement an algorithm. ▪ Create programs as sequences of instructions when programming on screen, correcting any errors. ▪ Begin to experiment with variables. 	<ul style="list-style-type: none"> ▪ Design and write a program using a block language (programs to include movement, dialogue, sound effects, stages, sprites, loops and variables) without user interactions. ▪ Use sequence in programs. ▪ Write a program to produce output on screen. ▪ Explain how loops and random numbers are used in a program. ▪ Explain how conditional statements are used in a program. ▪ Understand what it means to decompose an algorithm and decompose a program into smaller parts.
	Logical Reasoning	<ul style="list-style-type: none"> ▪ Describe what they think a program will do. 	<ul style="list-style-type: none"> ▪ Explain what they think a program will do. 	<ul style="list-style-type: none"> ▪ Give logical explanations of what a program will do under given circumstances, including some attempt at explaining why it does what it does. 	<ul style="list-style-type: none"> ▪ Use logical reasoning to predict outcomes and detect errors in programs. ▪ Use and explain a simple, sequence-based algorithm in their own words.
	Networks and search engines	<ul style="list-style-type: none"> ▪ - 	<ul style="list-style-type: none"> ▪ - 	<ul style="list-style-type: none"> ▪ Explain and understand how an email is sent. 	<ul style="list-style-type: none"> ▪ Understand that email and videoconferencing are made possible through the internet.

Information Technology	Digital Productivity Creating content	<ul style="list-style-type: none"> ▪ Use digital technology to store and access content with some support. ▪ Create content using digital technology. ▪ Begin to use a mouse to navigate around a computer screen. 	<ul style="list-style-type: none"> ▪ Use digital technology to store and retrieve content. ▪ Identify different kinds of content. ▪ Create original content using digital technology. ▪ Use a mouse to navigate around the computer screen. 	<ul style="list-style-type: none"> ▪ Store, organise and retrieve content on digital devices for a given purpose. ▪ Create and edit original content for a given purpose using digital technology. ▪ Present findings using software and interpret the data. ▪ Input data accurately and present this information in graphical format. 	<ul style="list-style-type: none"> ▪ Use a range of programs on a computer. ▪ Design and create content on a computer. ▪ Collect and present information.
	Searching	<ul style="list-style-type: none"> ▪ - 	<ul style="list-style-type: none"> ▪ - 	<ul style="list-style-type: none"> ▪ - 	<ul style="list-style-type: none"> ▪ Search for information within a single site. ▪ Describe how search engines select pages according to keywords found in the content.

Digital Literacy	Digital Citizenship & Technology Digital Creativity	<ul style="list-style-type: none"> ▪ Describe what personal information is. ▪ Understand the importance of asking for help from an adult when on the internet. ▪ Identify some ways technology is used at home and in school. 	<ul style="list-style-type: none"> ▪ Identify what personal information is. ▪ Identify what to do if they see disturbing content online at home or at school. ▪ Identify ways to keep themselves safe while using digital technology. ▪ Understand that information on the internet can be seen by others. ▪ Describe some of the risks that occur on the internet. ▪ Show an awareness of how IT is used for communication beyond school. 	<ul style="list-style-type: none"> ▪ Explain what personal information is and develop awareness of why it is special and should not be shared. ▪ Explain what to do if they have concerns about content or contact online. ▪ Keep safe and show respect to others while using digital technology. ▪ Identify ways they can use the Internet to communicate with family and friends. ▪ Show an awareness of how IT is used for a range of purposes beyond school. 	<ul style="list-style-type: none"> ▪ Identify who they can trust and share their personal information with online. ▪ Use digital technology safely and show respect for others when working online. ▪ Identify how to report concerns and inappropriate behaviour in school. ▪ Recognise unacceptable behaviour when using digital technology. ▪ Decide whether a web page is relevant for a given purpose or question. ▪ Use email and videoconferencing in class appropriately. ▪ Explain and understand online protocols, in order to stay safe on the web. ▪ To identify cyberbullying and its consequences. ▪ Identify the risks on online gaming and know how to protect themselves.
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