

# Computing at Georgian Gardens Primary School



## EYFS

- Children recognise that a range of technology is used in places such as homes and schools
- They select and use technology for a particular purpose
- Complete simple programs on a computer.

Curriculum Strand	Sub Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	Problem solving	<p>Understand algorithms as sequences of instructions in everyday contexts. [1.1, 1.2, 1.4]</p> <p>Plan and give a sequence of steps, to solve real world problems, to programmable toys. [1.1]</p>	<p>Understand algorithms as sequences of instructions or sets of rules in everyday contexts. [2.1, 2.2, 2.3]</p> <p>Program on screen using sequences of instructions to implement an algorithm. [2.1, 2.2]</p>	<p>Design and write a program using a block language, without user interaction. [3.1, 3.2]</p> <p>Explore simulations of physical systems on screen. [3.1, 3.2]</p> <p>Plan a project. [3.1, 3.3, 3.6]</p>	<p>Design and write a program using a block language to a given brief, including simple interaction. [4.1, 4.2]</p> <p>Develop their own simulation of a simple physical system on screen. [4.1, 4.2]</p> <p>Work with others to plan a project. [4.1, 4.2, 4.5, 4.6]</p>	<p>Design, write and debug a program using a block language based on their own ideas. [5.1, 5.3]</p> <p>Can experiment with computer control applications.</p> <p>Plan a solution to a problem using decomposition. [5.1, 5.4, 5.6]</p>	<p>Design, write and debug a program using a second programming language based on their own ideas. [6.1, 6.4, 6.5]</p> <p>Design, write and debug their own computer control application. [6.1, 6.4, 6.5]</p> <p>Solve problems using decomposition, tackling each part separately. [6.1, 6.2]</p>
	Programming	<p>Create a Bee Bot program using a sequence of instructions before running it using the Go button. [1.1]</p>	<p>Create a simple program on screen, correcting any errors. [2.1, 2.2]</p>	<p>Use a sequence in programs. [3.1, 3.2]</p> <p>Write a program to produce an output on screen. [3.1, 3.2, 3.3, 3.6]</p>	<p>Use sequence and repetition in programs. [4.1, 4.2, 4.3]</p> <p>Write a program that accepts keyboard input and produces on-screen output. [4.1, 4.2]</p>	<p>Use sequence, selection and repetition in programs. [5.1, 5.3]</p> <p>Write a program that accepts keyboard and mouse input and produces output on screen and through speakers. [5.1, 5.4, 5.5, 5.6]</p>	<p>Use sequence, selection, repetition and variables in programs. [6.5]</p> <p>Write a program that accepts inputs other than keyboard and mouse and produces outputs other than screen or speakers. [6.4, 6.5]</p>

	Logical thinking	<p>Explain what they think a program will do. [1.1]</p>	<p>Give logical explanations for what they think a program will do. [2.1, 2.2]</p>	<p>Explain a simple sequence based algorithm in their own words. [3.1, 3.3]</p> <p>Use logical reasoning to detect errors in programs. [3.1, 3.2]</p> <p>Understand that computer networks transmit information in a digital (binary) format. [3.4, 3.5]</p> <p>Understand that email and video conferencing are made possible through the internet. [3.4, 3.5]</p>	<p>Explain an algorithm using sequence and repetition in their own words. [4.1, 4.2, 4.3]</p> <p>Use logical reasoning to detect and correct errors in programs. [4.1, 4.2, 4.3]</p> <p>Understand that the internet transmits information as packets of data. [4.3, 4.4, 4.5]</p> <p>Understand how the internet makes the web possible. [4.4, 4.5]</p>	<p>Explain a rule-based algorithm in their own words. [5.1]</p> <p>Use logical reasoning to detect errors in algorithms. [5.1, 5.3]</p> <p>Understand how data routing works on the internet. [5.2, 5.4, 5.5]</p> <p>Understand how web pages are created and transmitted. [5.4, 5.5]</p>	<p>Give clear and precise logical explanations of a number of algorithms. [6.1, 6.4, 6.5]</p> <p>Use logical reasoning to detect and correct errors in algorithms (and programs). [6.4, 6.5]</p> <p>Understand how mobile phone or other networks operate. [6.1]</p> <p>Understand how domain names are converted into IP addresses on the internet. [6.6]</p>
Information Technology	Creating content	<p>Use digital technology to store a retrieve content. [1.2, 1.3, 1.4, 1.5, 1.6]</p> <p>Create original content using digital technology. [1.2, 1.3, 1.4, 1.5, 1.6]</p>	<p>Store, organise and retrieve content on digital devices for a given purpose. [2.3, 2.4, 2.5, 2.6]</p> <p>Create and edit original content for a given purpose using digital technology. [2.3, 2.4, 2.5, 2.6]</p>	<p>Use a range of programs on a computer. [3.3, 3.4, 3.5, 3.6]</p> <p>Design and create content on a computer. [3.3, 3.5, 3.6]</p> <p>Collect and present information. [3.3, 3.5, 3.6]</p>	<p>Use and combine a range of programs on a computer. [4.3, 4.4, 4.5, 4.6]</p> <p>Design and create content on a computer in response to a given goal. [4.3, 4.4, 4.5, 4.6]</p> <p>Collect and present data. [4.3, 4.6]</p>	<p>Use and combine a range of programs on multiple devices. [5.1, 5.4, 5.5, 5.6]</p> <p>Design and create programs on a computer in response to a given goal. [5.1, 5.3]</p> <p>Analyse and evaluate information. [5.3, 5.4, 5.5, 5.6]</p>	<p>Select, use and combine a range of programs on multiple devices. [6.1, 6.2, 6.3, 6.4, 6.5, 6.6]</p> <p>Design and create systems in response to a given goal. [6.1, 6.3, 6.4, 6.5]</p> <p>Analyse and evaluate data. [6.3]</p>

	Searching			<p>Search for information within a single site.</p> <p>Understand that search engines select pages according to keywords found in the content.</p>	<p>Use a standard search engine to find information. [4.5]</p> <p>Understand that search engines rank pages according to relevance. [4.6]</p>	<p>Use filters to make more effective use of a standard search engine. [5.4]</p> <p>Understand that search engines use a cached copy of the crawled web to select and rank results. [5.4]</p>	<p>Make use of a range of search engines appropriate to finding information that is required. [6.1, 6.3]</p> <p>Appreciate that search engines rank pages based on the number and quality of in-bound links. [6.1, 6.6]</p>
Digital Literacy	E-Safety	<p>Keep themselves safe while using digital technology. [1.3, 1.4, 1.6]</p> <p>Understand that information on the internet can be seen by others. [1.3, 1.4, 1.6]</p> <p>Understand what to do if they see disturbing content online at home or at school. [1.3, 1.4, 1.6]</p>	<p>Keep safe and show respect to others using digital technology. [2.2, 2.3, 2.4, 2.5, 2.6]</p> <p>Understand they should not share personal information online. [2.2, 2.4, 2.5, 2.6]</p> <p>Understand what to do if they have concerns about content or contact online. [2.1, 2.2, 2.4, 2.5]</p>	<p>Use digital technology safely and show respect for others when working online. [3.1, 3.2, 3.3, 3.4, 3.5, 3.6]</p> <p>Recognise unacceptable behaviour when using digital technology. [3.1, 3.2, 3.3, 3.4, 3.5, 3.6]</p> <p>Know who to talk to about concerns and inappropriate behaviour in school. [3.1, 3.2, 3.3, 3.4, 3.5, 3.6]</p> <p>Decide whether a webpage is relevant to a given purpose or question. [3.1, 3.3, 3.6]</p> <p>Use email and videoconferencing in class. [3.5]</p>	<p>Demonstrate that they can act responsibly when using computers. [4.1, 4.2, 4.3, 4.4, 4.5]</p> <p>Understand the difference between acceptable and unacceptable behaviours when using digital technology. [4.1, 4.2, 4.3, 4.4, 4.5]</p> <p>Know who to talk to about concerns and inappropriate behaviour at home or in school. [4.1, 4.2, 4.3, 4.4, 4.5, 4.6]</p> <p>Decide whether digital content is relevant for a given purpose or question. [4.5]</p> <p>Work collaboratively with classmates on a shared wiki. [4.5]</p>	<p>Demonstrate that they can act responsibly when using the internet. [5.1, 5.2, 5.4, 5.5]</p> <p>Discuss the consequences of particular behaviours when using digital technology. [5.1, 5.2, 5.4, 5.5]</p> <p>Know how to report concerns and inappropriate behaviour in a range of contexts. [5.1, 5.3, 5.4, 5.5]</p> <p>Decide whether digital content is reliable and unbiased. [5.1, 5.3, 5.4, 5.5, 5.6]</p> <p>Work collaboratively with classmates on a class website or blog. [5.4, 5.5]</p>	<p>Use technology safely, respectfully and responsibly.</p> <p>Recognise acceptable/unacceptable behaviour.</p> <p>Know a range of ways to report concerns and inappropriate behaviour.</p> <p>Be discerning in evaluating digital content.</p> <p>Understand the opportunities networks offer for communication and collaboration.</p>
	Using IT beyond school	<p>Show an awareness of how IT is used for communication beyond school. [1.2, 1.3, 1.5, 1.6]</p>	<p>Show an awareness of how IT is used for communication beyond school. [2.1, 2.2, 2.3, 2.4, 2.5, 2.6]</p>				

