



# Burlington Junior School Computing



## Computer science

Key Stage One		Lower Key Stage Two		Upper Key Stage Two	
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>Understand how to login safely and explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New.</li> <li>Use logical reasoning be able to add pictures and text to work.</li> </ul>	<ul style="list-style-type: none"> <li>Create and debug a simple program using simple algorithms.</li> <li>Understand what algorithms are; how they are implemented as programs and understand how to use the Repeat and timer command.</li> <li>Use logical reasoning to predict the behaviour of simple programs.</li> </ul>	<ul style="list-style-type: none"> <li>Design, write and debug simple programs that simulate a physical system.</li> <li>Use sequence, selection and repetition in programs including the use of a variable to create a timer in a program with the introduction of selection in their programming by using the if command.</li> <li>Use logical reasoning to explain how some simple algorithms work and be able to find and correct errors in their programs.</li> </ul>	<ul style="list-style-type: none"> <li>Design, write and debug programs using a sketch or storyboard to represent a program design and algorithm.</li> <li>Use sequence, selection and repetition in programs using their own design to create a program with a character that repeats actions when commanded and responds to the If/else command, using the value of the variable to accomplish specific goals.</li> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul>	<ul style="list-style-type: none"> <li>Design, write and debug programs to create a playable game, including controlling or simulating physical systems and solve problems by decomposing them into smaller parts.</li> <li>Use sequence, selection and repetition in programs; work with variables, various forms of input and output including if/else statements and repeats to achieve the desired effect in code.</li> <li>Use logical reasoning to explain how some simple algorithms work; detect and correct errors in algorithms and programs and read code so that it can be adapted, personalised and improved.</li> </ul>	<ul style="list-style-type: none"> <li>Design, write and debug programs to create a text-based adventure game using a choice of objects, attributing specific actions to each using new programming knowledge including the use of functions and exploring the options for getting text input from the user in 2Code.</li> <li>Use sequence, selection and repetition in programs; work with variables and various forms of input and output previously used within a game to keep track of the properties of objects and organise code into functions and Call functions to eliminate surplus code in the program.</li> <li>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs using flowcharts to test and debug a program.</li> </ul>

## Vocabulary

Debug, bug, algorithm, code, design, write, input, output, command, repeat, save	Debug, bug, algorithm, code, design, write, input, output, command, repeat, variable, timer	Debug, bug, algorithm, code, design, write, input, output, command, repeat, event, object, selection, variable, timer	Action, alert, code design, debug, debugging, flowchart bug, design map, get input, control, algorithm, command, event.	Action, alert, algorithm, bug, code design, command, control, debug, debugging, design mode, event, input, selection, repeat, output, simulation.	Action, alert, algorithm, code design, command, control debugging, debug, event, flowchart bug, function, get input, output, repeat, object, simulation, tabs, selection
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## Information Technology

<ul style="list-style-type: none"> <li>Use technology purposefully to search Purple Mash to find resources and understand the importance of logging out when they have finished.</li> </ul>	<ul style="list-style-type: none"> <li>Use technology purposefully to have some knowledge and understanding about how to refine searches using the Search tool and sharing more globally on the Internet.</li> </ul>	<ul style="list-style-type: none"> <li>Use search technologies effectively, appreciate how results are selected and ranked and consider that what they read on websites may not be true and learn about the meaning of age restrictions symbols on digital media and devices.</li> </ul>	<ul style="list-style-type: none"> <li>Use search technologies effectively, appreciate how results are selected and ranked, and understand how to protect themselves from online identity theft; understand that information put online leaves a digital footprint or trail and that this can aid identity theft and consider the consequences of plagiarism.</li> </ul>	<ul style="list-style-type: none"> <li>Use search technologies effectively, appreciate how results are selected and ranked; gain a greater understanding of the impact that sharing digital content can have; understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this and the opportunities they offer for communication and collaboration and ensure reliability through using different methods of communication.</li> </ul>	<ul style="list-style-type: none"> <li>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content; understand the opportunities they offer for communication and collaboration; Identify the benefits and risks of giving personal information and device access to different software and have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.</li> </ul>
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## Vocabulary

internet world wide web, network, wireless, search	internet world wide web, network, wireless, email, search, share	Graph, bar chart, data, field, line graph, presentation, slideshow, media, font, animation	Columns, rows, average, equals tool, formula, charts, copy and paste, spreadsheet, spin tool, timer	Average, advance mode, copy and paste, columns, cells, charts, equals tool, formula, formula wizard, move cell tool, random tool, rows, spin tool, spreadsheet, timer, data, record, statistics, database, table, sort, group, arrange.	Average, advance mode, copy and paste, columns, cells, charts, count, dice, equals tool, formula, formula wizard, random tool, rows, move cell tool, spreadsheet, timer, spin tool, internet world wide web, network, wireless, concept map, database, audience.
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## Digital Literacy

<ul style="list-style-type: none"> <li>Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private by understanding the idea of 'ownership' of their creative work.</li> </ul>	<ul style="list-style-type: none"> <li>Recognise common uses of information technology beyond school. Use technology safely and respectfully, introducing Email as a communication tool using 2Respond simulations and begin to think critically about the information they leave online.</li> </ul>	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact; understand how the Internet can be used to help us to communicate effectively; create a 'spoof' webpage. To think about why these sites might exist and how to check that the information is accurate; discuss why PEGI restrictions exist and know where to turn for help if they see inappropriate content or have inappropriate contact from others.</li> </ul>	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact; understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism; Understand that information put online leaves a digital footprint or trail and that this can aid identity theft and understand the importance of balancing game and screen time with other parts of their lives</li> </ul>	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact; gain a greater understanding of the impact that sharing digital content can have and the consequences; understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.</li> </ul>	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact; understand the positive and negative influences of technology on health and the environment; the risks of mobile devices broadcasting the location of the user/device and have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.</li> </ul>
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## Vocabulary

<p>Password, username, webpage, internet, login, save, icon.</p>	<p>Password, username, webpage, internet, login, save, icon, communication.</p>	<p>Password, username, webpage, internet, spoof website, PEGI rating, blog.</p>	<p>Computer virus, cookies, copyright, digital footprint, email, identity theft, malware, phishing, plagiarism, spam.</p>	<p>Online safety, smart rules, password, reputable, encryption, identity theft, shared image, plagiarism, citations, reference, bibliography.</p>	<p>Digital footprint, password, PEGI rating, phishing, screen time, spoof website, plagiarism</p>
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