

# Ben Jonson Primary School Mapping of Computing Across Whole School

Mapped by Jan Aelmans



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<p style="text-align: center;">Explore, observe and find out about technology. Explore a variety of programs and activities with the aid of technology. Become familiar with using a digital device e.g. laptop, and develop trackpad control (clicking and dragging) and keyboard skills.</p> <p>ELG: Physical Development — Fine Motor Skills: Using and controlling a trackpad and clicking buttons on a laptop or input on an iPad. ELG: Personal, Social and Emotional Development — Managing Self: Be confident to try new computing activities and show independence, resilience and perseverance in the face of challenges set by tasks.</p>					
	<p><b>Key stage 1</b> <b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>❖ understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>❖ create and debug simple programs</li> <li>❖ use logical reasoning to predict the behaviour of simple programs</li> <li>❖ use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>❖ recognise common uses of information technology beyond school</li> <li>❖ use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>					
Year 1	Use technology safely: Keep personal information private: Login details and passwords	Use technology purposefully to create digital content: Typing name, date and text Combining text and images	Use technology purposefully to store digital content: Save work	Use technology purposefully to retrieve digital content: Locate and open saved files	Recognise common uses of information technology beyond school: Online learning	Identify where to go for help and support for e-safety: Understanding what to do for e-safety at home and in school
Year 2	Use technology purposefully to organise digital content: Typing a list using bullet points. Use technology to manipulate digital content: Editing work and using word banks.	Use technology purposefully to create digital content: Creating images with shape tools and effects using a graphics program.	Use technology purposefully to retrieve digital content from the internet: Searching for pictures online (Build in option Word and Docs)	Understand what algorithms are: Understand that algorithms are implemented as programs on digital devices: Floor robots and modelling effects on screen.	Create simple program: Program a floor robot Understand that programs execute by following precise and unambiguous instructions: Programming floor robot, plotting routes. Debug simple program: Amend commands	Use logical reasoning to predict the behaviour of simple programs: Predict routes and destinations.
	<p><b>Key stage2:</b> <b>Pupils should be taught to:</b></p> <ul style="list-style-type: none"> <li>❖ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>❖ use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <li>❖ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> <li>❖ understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</li> <li>❖ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>❖ select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> </ul>					

	❖ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.					
<b>Year 3</b>	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about online content Use search technologies effectively and be discerning in evaluating digital content: Online research, refining internet searches.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals: Publishing and presenting online research	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration: Feedback on projects and online submitted work.	Use and combine a variety of software (including internet services) for collecting, analysing, evaluating and presenting data and information: Data handling, creating a database. Field, record, list, table, query Branching data base	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (Fix the factory)	use sequence, selection, and repetition in programs; work with variables and various forms of input and output (Lightbot)
<b>Year 4</b>	Use search technologies effectively and be discerning in evaluating digital content: Finding and evaluating information. Collection and saving information and images using different formats e.g. table.	Select, use and combine a variety of software (including internet services) to present information. Creating a presentation with information gathered and stored.	Understand computer networks including the internet Creating a flow chart of home network, using shapes and images. Comparing home network and a server network.	Select, use and combine a variety of software (including internet services) to design and create an interactive presentation. Graphics program and video creation	Work with various forms of input: Data logging. Work with various forms of output: Collect and present data. Presenting data results in a spreadsheet or table. Using graphs and charts to represent data findings.	Use sequence in programs: Introduction to (Block) coding. Creating a simple animation by programming and sequencing events and instructions.
<b>Year 5</b>	Design and create content. Analyse information and evaluate information: Internet Presenting and publishing information in different formats; Brochure, table, poster.	Select, use and combine Internet services and presentation software; Creating a presentation with hyperlinks	Select, use and combine a graphics program and internet services to create a design using map symbols and/or CAD icons.	Use and combine a variety of software (including internet services) for collecting, analysing, evaluating and presenting data and information: Creating own data base and using date for publication or presentation. (Newsletter)	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Creating a game using a coding program (Scratch).	Use logical reasoning to detect and correct errors in programs: Debug created game and changing variables.
<b>Year 6</b>	Work with variables: Spreadsheets and formulae. Main toolbars and elements of a worksheet.	Analyse and evaluate date: Functions and graphs. Using spreadsheets to create charts and graphs.	Understand computer networks including the Internet: Creating a website and a blog page. Upload video clips to created website. Publish a website (Domain and URL)	Select, use and combine software (Audacity, iMovie, GarageBand) on a range of digital devices e.g. laptop, iPad, to create a media presentation.	Solve problems by decomposing them into smaller parts. Coding: different coding languages including alternative block coding programs and introduction to JavaScript and Python (Hour of Code)	Use logical reasoning to detect and correct errors in programs: Debugging coding programming.