

**Computing Overview**  
Westminster Community Primary School

Year Group	Autumn	Spring	Summer
<b>Reception</b>	Children understand and learn what technology is and how everyday objects work in the environment.	Children learn and understand how to complete a simple program on a computer.  Children learn and understand how to interact with age appropriate software.	Children understand and learn how to use technology for specific purposes.
<b>Year 1/2 Cycle A</b>	<p><b>Design, write and debug simple programs –</b></p> <p>Explain algorithms as precise instructions. Children to give instructions to partner on how to draw a monster. Highlight how ambiguous instructions lead to varied results. Children work on improving their instructions to improve the drawings.</p> <p>Relate this to computers as they can only follow instructions, they need us to be precise.</p> <p>Use child friendly version of Scratch. Children to create simple programs using basic features of Scratch. Share programs and debug/improve each other's. Produce basic game.</p> <p><b>Use technology purposefully -</b></p> <p><b>Typing skills</b>, copy and paste text. Use of spelling checking and reviewing skills. Children to type up a piece of work in best and present using format features of word.</p>	<p><b>Recognise uses of technology beyond school</b></p> <p>Examine the wide variety of ways that hardware is used to enhance our modern lives.</p> <p>Lessons on hardware in hospitals, police, entertainment and factory production.</p> <p>Compare to how things were done historically to how technology enables us to do them today.</p> <p><b>Online safety –</b> Social media. Discuss a range of these websites and their purpose. Highlight the dangers and how they can be used safely.</p>	<p><b>Use technology purposefully -</b></p> <p>Basic use of search engines. How keywords are used instead of whole questions. How more specific keywords leads to more specific results.</p> <p>Complete independent research project leading to non-chronological report. Children to review and use skills of word.</p> <p>Powerpoint can be used to present information in a different way. Work on basic features of this (Slides, headings, formatting, transitions and animations).</p> <p><b>Online safety –</b></p> <p>Use Hector's World to create a safety poster and comic. Focus on personal data and why it is important to keep it private.</p>

<p><b>Year 1/2 Cycle B</b></p>	<p><b>Use technology purposefully -</b></p> <p>Turning on a computer, logging on (why we use passwords) , saving work (why this is important), printing work, copy &amp; paste and resizing images.</p> <p><b>Online safety</b> – What the internet is used for, where to go for help if you are unsure. Identify a range of ways to raise concerns online.</p>	<p><b>Recognise uses of technology beyond school</b></p> <p>Pupils to identify how technology is used for business and leisure.</p> <p>More able pupils to explain pros and cons of aspects of technology.</p> <p>Browse school website, compare to variety of other websites from a range of companies/roles.</p> <p>Children create a wall display of the wide variety of uses of technology and the internet.</p> <p><b>Online safety</b> – Personal information online (Hectors world episode 1). Important of personal information and why we do not share it online. How other people could change their personal information to be someone other than who they say they are.</p>	<p><b>Design, write and debug simple programs.</b></p> <p>Use Beebots/program apps to create simple programs. Introduce algorithms as instructions given to a computer. Focus on clarity and precision.</p> <p>Ideas – Be a robot. Pupil instruct each other to move around the room following computers like a machine would, teacher model and address misconceptions.</p> <p>Children record programs on whiteboards as simple diagrams and when errors occur identify the error and debug.</p> <p><b>Use technology purposefully –</b></p> <p>Recognise that we can use a range of hardware in school (laptops, iPads, cameras etc).</p> <p>Children to use iPads to create their own video. Identify the visual and audio tools available. Describe how we can upload, store and share these, link to E-safety.</p>
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<p><b>Year 3/4 Cycle A</b></p>	<p><b>Safety and online safety</b> Children to create posters about online-safety to advise others about using technology safely, respectfully and responsibly.</p> <p>Children to use the 'think you know' website: section labelled 8 – 10 years</p> <p>Safety video to watch and discuss: <a href="https://www.youtube.com/watch?v=d5kW4pI_VQw">https://www.youtube.com/watch?v=d5kW4pI_VQw</a></p> <p><b>Using office: focus on Microsoft PowerPoint</b> Children to develop skills in using PowerPoint. Children to learn how to use various features of the programme such as adding/duplicating slides, altering the visual look of a page/text, adding tables/images/clipart/shapes, using sound, timings, adding animation to objects and how to view the finished product.</p>	<p><b>Code (Scratch)</b> Children to design an animation using 'Scratch'. This will allow children to learn how to design and write programs that accomplish specific goals.</p> <p>Children to solve puzzles through coding.</p> <p>Children to investigate algorithms.</p> <p><b>Designing and creating</b> Children to learn how to edit photographs.</p> <p>Children to learn how to edit video.</p> <p><b>Using a search engine</b> Children to be taught to use search technologies effectively.</p> <p>Children to be explicitly taught how to use key words to create an effective search.</p>	<p><b>Communication in the digital age</b> Children to use the school website to learn how to blog.</p> <p><b>Designing and creating</b> Children to start developing a webpage.</p>
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<p><b>Year 3/4 Cycle B</b></p>	<p><b>Safety and online safety</b> Children to create radio adverts about online-safety to advise others about using technology safely, respectfully and responsibly. Share these in an assembly.</p> <p>Children to us the ‘think you know’ website: section labelled 8 – 10 years</p> <p>Disney online safety video to watch and discuss: <a href="https://www.youtube.com/watch?v=M-njh8mFvVk">https://www.youtube.com/watch?v=M-njh8mFvVk</a></p> <p><b>Developing office use: focus on Word</b> Children to increase their skills in using this programme effectively. Children to learn how to use various features of the programme such as creating a table, altering the format of text/images, altering the layout of the page, opening/saving/printing/creating documents, using headers/footers, using different style bullet points and how to use the review features e.g. spell check/thesaurus.</p> <p><b>Using a search engine</b></p> <p>Children to understand and appreciate how results are selected and in turn chose the results that best suit their needs and refine their keywords.</p>	<p><b>Code (Scratch)</b> Children to design an animation using ‘Scratch’. This will allow children to learn how to design and write programs that accomplish specific goals.</p> <p>Children to solve puzzles through coding.</p> <p>Children to investigate algorithms.</p> <p><b>Technology, networking and it’s use in real life</b> Children to explore the use of simple networks</p> <p>Children to use various forms of technology and compare their uses. Children to start to think about were technology is used in the wider world.</p>	<p><b>Designing and creating</b> Children to learn how to create and edit a video.</p> <p><b>LEGO® Education Machines &amp; Mechanisms</b> Children to explore their skills through this programme.</p>
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<p style="text-align: center;"><b>Year 5/6 Cycle A</b></p> <p>These topics should be taught in a cross-curricular way on a regular basis:</p> <p><b>Using a search engine</b> Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p><b>Using office:</b> Using Microsoft word to type up documents.</p>	<p><b>Safety and online safety</b> Various activities/games/roleplays/discussions to help children recognise acceptable/unacceptable behaviour.</p> <p>Children to use the ‘think you know’ website: section labelled 8 – 10 years</p> <p>‘Think you know’ video to watch and discuss: <a href="https://www.youtube.com/watch?v=_o8auwnJtqE">https://www.youtube.com/watch?v=_o8auwnJtqE</a></p> <p>NSPCC video to watch and discuss: <a href="https://www.youtube.com/watch?v=z1n9Jly3CQ8">https://www.youtube.com/watch?v=z1n9Jly3CQ8</a></p> <p>Children to create videos about using technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. These can be shared in an assembly.</p> <p><b>Communication in the digital age</b> Children to use the school website to learn how to blog.</p> <p><b>Designing and creating: Composing music</b> Children to use technology to compose their own compositions</p>	<p><b>Developing Coding Skills (hour of code)</b> Children to develop their coding skills, so they are able to use sequence, selection, and repetition in programs, design, write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p><b>Using algorithms and learning to debug</b> Children to develop their understanding through using logical reasoning to explain how some simple algorithms work.</p> <p>Children to also detect and correct errors in algorithms and programs.</p> <p><b>Designing and creating</b> Children to learn how to design and build a website/app</p>	<p><b>Using office and beyond: Prezi vs PowerPoint</b> Children to use Prezi and then compare with what they already know about PowerPoint.</p> <p><b>Networking and it’s use in real life</b> Children to investigate how various different networks work, and how they are used in real life.</p> <p><b>Developing office use: focus on Excel</b> Children to become familiar with using excel by creating a database/using it to record data.</p>
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<p style="text-align: center;"><b>Year 5/6 Cycle B</b></p> <p>These topics should be taught in a cross-curricular way on a regular basis:</p> <p><b>Using a search engine</b> Pupils should be taught to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p><b>Using programmes</b> Using Microsoft word to type up documents.</p>	<p><b>Safety and online safety</b> Various activities/games/roleplays/discussions to help children recognise acceptable/unacceptable behaviour.</p> <p>Children to use the ‘think you know’ website: section labelled 8 – 10 years.</p> <p>‘Caught in the web’ video (Newsround) to watch and discuss: <a href="https://www.youtube.com/watch?v=kgCNGvL0g1g">https://www.youtube.com/watch?v=kgCNGvL0g1g</a></p> <p>NSPCC video to watch and discuss: <a href="https://www.youtube.com/watch?v=kwcL-VP3FYc">https://www.youtube.com/watch?v=kwcL-VP3FYc</a></p> <p>Children to create a magazine article about using technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p><b>Using office: focus on publisher</b> Children to become confident with using various features of publisher by creating leaflets/magazine articles/ newsletters (cross curricular links)</p> <p><b>Designing and creating</b> Children to learn how to create and edit a video.</p>	<p><b>Developing Coding Skills (hour of code)</b> Children to develop their coding skills, so they are able to use sequence, selection, and repetition in programs, design, write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p><b>Using algorithms and learning to debug</b> Children to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p><b>Designing and creating</b> Children to learn how to use technology to design a product/building using google sketch up.</p>	<p><b>Developing office use: focus on Excel</b> Children to develop their skill in using a spreadsheet through ‘Theme park maths’. Children to plan, build and operate a theme park using a spreadsheet.</p> <p><b>Designing and creating</b> Children to use technology to research and then create their own stop motion animation.</p> <p><b>Designing and creating: Composing music</b> Children to use technology to compose their own compositions</p>
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