# Computing Curriculum Map

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| EYFS | **The most relevant statements for computing are taken from the following areas of learning:**<br>• Personal, Social and Emotional Development<br>• Physical Development<br>• Understanding the World<br>• Expressive Arts and Design<br><br>**By the end of Nursery, we expect children to be able to:**<br>• Remember rules without needing an adult to remind them<br>• Match their developing physical skills to tasks and activities in the setting<br>• Explore how things work<br><br>**By the end of Reception, we expect children to be able to:**<br>• Show resilience and perseverance in the face of a challenge<br>• Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screen time'<br>• Develop their small motor skills so that they can use a range of tools competently, safely, and confidently<br>• Explore, use and refine a variety of artistic effects to express their ideas and feelings.<br>• Be confident to try new activities and show independence, resilience, and perseverance in the face of challenge<br>• Explain the reasons for rules, know right from wrong and try to behave accordingly<br>• Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function |

| Year 1 | Autumn | | Spring | | Summer | |
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| | **E-Safety**<br><br>Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | **Digital Sound**<br><br>To use technology purposefully to create digital content. | **Text and images**<br><br>Recognise common uses of information technology. | **Programming**<br><br>Predict the behaviour of simple programs. Understand what algorithms are and how they implemented on digital devices. | **Digital Art**<br><br>To use technology purposefully to create digital content. | **Mouse and Keyboard Skills**<br><br>Recognise common uses of information technology. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/year-one/<br><br>https://www.ilearn2.co.uk/e-safety---key-stage-1.html/ | https://www.ilearn2.co.uk/year1musiccreation.html/ | https://www.ilearn2.co.uk/year-1-text--images.html/ | https://www.ilearn2.co.uk/year-1-programming.html/ | https://www.ilearn2.co.uk/year33ddesignteacher.html/ | https://www.ilearn2.co.uk/year1-html/ |

| Year 2 | Autumn | | Summer | | Spring | |
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| | **E-Safety**<br><br>Use technology safely and keep personal information private. | **Digital Art**<br><br>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. | **Developing Programming**<br><br>Use logical reasoning to predict the behaviour of simple programs.<br>Create and debug simple programs.<br>Debug simple programs by using logical reasoning to predict the actions instructed by the code. | **Internet Research**<br><br>Recognise common uses of information technology beyond school. | **Programming with Scratch Jr**<br><br>Understand that programs execute by following precise and unambiguous instructions. | **Text and Images**<br><br>Use technology purposefully to create digital content, comparing the benefits of different programs. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/year-two/<br><br>https://www.ilearn2.co.uk/e-safety---key-stage-1.html/ | https://www.ilearn2.co.uk/year-2-animation.html/ | https://www.ilearn2.co.uk/year-2-programming.html/ | https://www.ilearn2.co.uk/year-2-research.html/ | https://www.ilearn2.co.uk/year-2-scratch-jr.html/ | https://www.ilearn2.co.uk/eboookcreationks1.html/ |

| Year 3 | Autumn | | Spring | | Summer | |
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| | **E-Safety** | **Text and Images** | **Text Editing** | **Infographics** | **Digital Art** | **Programming in Kodu** |
| | Understand that computer network enables the sharing of data and information.<br>Use technology safely and respectfully keeping personal information private.<br>Use technology safely and recognise acceptable and unacceptable behaviour.<br>Understand that the internet is a large network of computers, and that information can be shared between computers. | Recognise an input and output device and how they are used.<br>Make efficient use of familiar forms of input and output devices. | Use simple search technologies and recognise that some sources are more reliable than others. | With support select and use a variety of software to accomplish goals. | With support select and use a variety of software to accomplish goals. | Design, write and debug programmes that control or simulate virtual events.<br>Use logical reasoning to explain how some simple algorithms work. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/year-three/<br><br>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ | https://www.ilearn2.co.uk/comiccreationteacher.html/ | https://www.ilearn2.co.uk/year3storyboards/ | https://www.ilearn2.co.uk/year3infographics.html/ | https://www.ilearn2.co.uk/year33ddesignteacher.html/ | https://www.ilearn2.co.uk/year-3-kodu.html/ |

| Year 4 | Autumn | | Spring | | Summer | |
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| | **E-Safety** | **Internet Research** | **Programming with Scratch** | **Inside a computer** | **Digital Art** | **Animation** |
| | Use technology responsibly and understand that communication online may be seen by others.<br>Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Understand how results are selected and rank by search engines.<br>Use filters in search technologies effectively.<br>Use filters in search technologies effectively and appreciate how results and selected and ranked. | Decompose programmes into smaller parts.<br>Use logical reasoning to detect and correct errors in algorithms and programs. | Understand what important parts of inside a computer or mobile device do to help with the performance (CPU, Fan, Hard Drive, RAM, Graphics Card).<br>Understand that memory is measured in bytes and gigabytes.<br>Use search filters on websites to find suitable information. | With support, select, use and combine a variety of software on a range of digital devices to accomplish given goals.<br>Select, use, and combine a variety of software, systems and content that accomplish given goals. | With support, select, use and combine a variety of software on a range of digital devices to accomplish given goals.<br>Select, use, and combine a variety of software, systems and content that accomplish given goals. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/4/<br>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ | https://www.ilearn2.co.uk/year-4-research.html/ | https://www.ilearn2.co.uk/y4scratch.html/ | https://www.ilearn2.co.uk/year-4-inside-a-computer/ | https://www.ilearn2.co.uk/year-4-graphic-design/ | https://www.ilearn2.co.uk/year-4-animation.html/ |

| Year 5 | Autumn | | Spring | | Summer | |
|---|---|---|---|---|---|---|
| | **E-Safety** | **Programming with Scratch** | **Computer Networks** | **Digital Sound** | **Programming Robots** | **Text-based programming** |
| | Understand the need to only select age-appropriate content. | Design, input and test an increasingly complex set of instructions to a program or device.<br>Design, write and test simple programs with opportunities for selection where a particular result will happen based on actions or situations controlled by the user. | Understand what servers and how they provide services to a network.<br>Begin to use internet services to share and transfer data to a third party. | Independently select, use, and combine a variety of software to design and create content for a given audience. | Design, write and debug programs that accomplish specific goals including controlling or simulating physical systems.<br>Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated.<br>Use other input devices such as cameras or sensors. | Use sequence and repetition in programs, work with variables.<br>Correct errors in programs. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/5/<br><br>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ | https://www.ilearn2.co.uk/y5scratch.html/ | https://www.ilearn2.co.uk/year-5-computer-networks.html/ | https://www.ilearn2.co.uk/year-5-music-creation.html/ | https://www.ilearn2.co.uk/year-5-sphero-programming-html/<br>https://www.bbc.co.uk/teach/microbit/teacher-resources/znm8mbk | https://www.ilearn2.co.uk/textprogrammingstudent.html/ |

| Year 6 | Autumn | | Spring | | Summer | |
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| | **E- Safety** | **Spreadsheets** | **BBC Micro: bit** | **Programming in Python** | **Digital Art** | **Digital Advancements** |
| | Use technology respectfully and responsibly.<br>Identify a range of ways to report concerns about content and contact in and out of school.<br>Be discerning when evaluating digital content. | Understand how computer networks enable computers to communicate and collaborate.<br>Independently select, use and combine a variety of software to design and create content for a given audience including collecting analysing, evaluating and presenting data and information. | Create programs which use variables.<br>Include use of sequences, selection, and repetition with the hardware used to explore real world systems.<br>Solve problems by decomposing them into smaller parts.<br>Use variables, sequence, selection and repetition in programs.<br>Use logical reasoning to explain how increasingly complex algorithms work. | Create programs which use variables.<br>Include use of sequences, selection, and repetition with the hardware used to explore real world systems.<br>Solve problems by decomposing them into smaller parts.<br>Use variables, sequence, selection and repetition in programs. | Design and create a range of programs, systems and content for a given audience. | Show awareness of how computers and digital technology helps us today.<br>Understand how technology has changed over time and represent it as an interactive timeline.<br>Understand the impact (positive/negative) technological changes have on society.<br>Predict how technology will change in the future. |
| Supporting Resources | https://projectevolve.co.uk/toolkit/resources/years/6/<br><br>https://www.ilearn2.co.uk/e-safety---key-stage-2.html/ | https://www.ilearn2.co.uk/year-6-data-detectives/ | https://www.bbc.co.uk/teach/microbit/teacher-resources/znm8mbk | https://www.ilearn2.co.uk/year6-html/ | https://www.ilearn2.co.uk/imageeditingteacher.html/ | https://www.ilearn2.co.uk/year-6-computers-past-present-future.html/ |