

| Computing | | | |
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|  | Map of Progression and End of Year Expectations | | |
| | Digital Literacy | Information Technology | Computer Science |
| Year 6 | <ul style="list-style-type: none"> - Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and ‘strong’ passwords. - Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have. - Understand what acceptable and unacceptable online behaviour is. - Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work. | <ul style="list-style-type: none"> - Independently select, use and combine a wide range of software on a variety of devices. - Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience. - Use advanced searches including the use of operators. - Create spreadsheet models to investigate real life problems, using their knowledge to make predictions. | <ul style="list-style-type: none"> - Know how search engines work and what ‘ranking’ is when related to search engines. - Design and create more complex programs using sequence, repetition, selection and variables appropriately. - Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. - Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors. - Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. - Understand the difference between the internet and internet services. |
| Year 5 | <ul style="list-style-type: none"> - Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints. - Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. - Understand what acceptable and unacceptable online behaviour is. - Use strategies to verify the reliability and accuracy of information on the internet and understand copyright. | <ul style="list-style-type: none"> - Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose. - Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches. - Create simple spreadsheet models to investigate real life problems. | <ul style="list-style-type: none"> - Design and write programs using sequence, repetition, selection and variables. - Develop greater understanding of how to use selection and repetition in more complex programs. - Understand how search engines work. - Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. - Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used. - Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration |

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| <p>Year 4</p> | <ul style="list-style-type: none"> - Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure. - Know different ways of reporting concerns about content and contact involving the internet and other communication technologies. - Have a greater understanding of what is acceptable and unacceptable online behaviour. - Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright. | <ul style="list-style-type: none"> - Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content. - Understand how Boolean operators can change searches and select appropriate information for their tasks. - Use models and simulations to produce graphs and explore patterns and relationships. | <ul style="list-style-type: none"> - Design and write more complex algorithms and programs using sequence, repetition and selection. - Further develop their computational thinking to help debug their programs and design and solve problems and tasks. - Have a simple understanding of how search engines work. - Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots. - Understand the difference between the internet and World Wide Web |
| <p>Year 3</p> | <ul style="list-style-type: none"> - Use technology safely and respectfully and have an understanding of how to keep information secure. - Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it. - Develop an understanding of what is acceptable and unacceptable online behaviour. - Realise that not all information on the internet is trustworthy and there is a need to verify its reliability. | <ul style="list-style-type: none"> - Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose. - Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions. - Use more complex simulations and understand the effects of changing variables. | <ul style="list-style-type: none"> - Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs. - Have knowledge and experience of using a range of different inputs and outputs. - Describe some of components of a computer network and some of the ways in which computer networks can be used. |
| <p>Year 2</p> | <ul style="list-style-type: none"> - Know their responsibilities from their school's acceptable use policy and how to report any concerns they have. - Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help. - Begin to develop an understanding of the importance of computers and the internet to communicate. - Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas. | <ul style="list-style-type: none"> - Use technology with purpose to create, store, organise, retrieve and manipulate digital content. - Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs. - Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true. - Use simple simulations and understand how they work. | <ul style="list-style-type: none"> - Use algorithms and know that they can be implemented as programs on devices. - Know what debugging is and find errors in their programs. - Understand that programs execute by following a precise set of instructions. - Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs. |
| <p>Year 1</p> | <ul style="list-style-type: none"> - Recognise common uses of information technology beyond school. - Understand the rules and responsibilities outlined by the school's acceptable use policy and begin to understand where to go for help when they have concerns. - Develop an understanding of how to keep their personal information private and understand they need to use technology safely and respectfully. | <ul style="list-style-type: none"> - Use technology with support, to create, store and retrieve digital content such as text and images. - Use a simple search to find information or files. - Develop understanding of how simulations work through exploring simple examples. | <ul style="list-style-type: none"> - Understand what algorithms are and develop strategies to help find bugs in them. - Make very simple programs. |

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| <p>Early Years</p> | <p>- Use different digital devices. - Recognise that you can access content on a digital device. - Use a mouse, touchscreen or appropriate access device to target and select options on screen. - Recognise a selection of digital devices. - Recognise the basic parts of a computer, e.g. mouse, screen, keyboard. - Select a digital device to fulfil a specific task, e.g. to take a photo.</p> | <p>Use technology to explore and access digital content. - Operate a digital device with support to fulfil a task. - Create simple digital content, e.g. digital art. - Choose media to convey information, e.g. image for a poster.</p> | <p>- Explore technology. - Repeat an action with technology to trigger a specific outcome. - Recognise the success or failure of an action. - Follow simple instructions to control a digital device. - Recognise that we control computers. - Input a short sequence of instructions to control a device.</p> |
| <p>Computing</p> | <p>Digital Literacy</p> | <p>Information Technology</p> | <p>Computer Science</p> |