



The Minster Junior School

Skills Progression – Computing

Areas of focus	Year 3	Year 4	Year 5	Year 6
Computer Science	<p>Design, write and debug programs that accomplish specific goals. Turn a simple real-life situation into an algorithm. Deconstruct code into manageable parts. Identify errors in code and fix them. Use sequence, selection and repetition in programs. Design and code a simple sequence programme. Experiment with timers to achieve repetition. Understand variables and how they are used. Use logical reasoning. Create logical achievable steps. Understand if statements Make accurate predictions about code and what effects happen. Understand computer networks; including the internet. Know a wide range of ways to communicate on the internet. Understand appropriate ways to communicate online.</p>	<p>Design, write and debug programs that accomplish specific goals. Understand a required task and how to accomplish it in code. Use selection and repetition more independently. More intuitive to debug their own programmes. Use sequence, selection and repetition in programs. More logical use of timers for repetition integrated into their programming. Understand if statements and combine them with variables. Use and manipulate the value of variables in their programming. Use user inputs and outputs; such as print to screen. Use logical reasoning. Think of a structure to a programme that is in logical achievable steps. Trace code and use step through methods to identify errors and made logical steps to correct them. Read programmes with several steps and predict outcomes accurately.</p>	<p>Design, write and debug programs that accomplish specific goals. Attempt to turn more complex real-life situations into algorithms. Test and debug their programmes as they go. Use logical methods to identify the cause of any bugs – with support may identify specific line of code. Use sequence, selection and repetition in programs. Translate algorithms that include sequence, selection and repetition into code. Combining sequence, selection and repetition with other coding structures to achieve their own designs. Use logical reasoning. Can name different variables. Can logically structure their own code. Use tabs to organise their code. Understand computer networks; including the internet. Understand the value of computer networks.</p>	<p>Design, write and debug programs that accomplish specific goals. Turn a more complex task into an algorithm. Identify the important aspects of the task (abstraction) and decompose them into a logical way using their coding knowledge. Test and debug any created programmes as they go. Identify bugs and the causes of them. Use a systematic approach to find the line of code causing the error. Use sequence, selection and repetition in programs. Translate algorithms into code using selection, sequence and repetition. Designs show the use of structures within structures including nesting. Improved understanding of variables, including outputs such as sound and movements. As well as inputs such as button clicks and the value of functions.</p>

		<p>Understand computer networks; including the internet. Recognise the main hardware that is needed to join a network. Understanding of the way they internet can be used to communicate is improving.</p>	<p>Are aware of the main dangers of a computer network. Recognise what personal information means and how to keep it safe. Can select the most appropriate form of online communication for their needs, considering audience and digital content.</p>	<p>Use logical reasoning. Can interpret a programme in parts. Make logical attempts to put the separate parts of a complex algorithm together, to explain the programme as a whole. Understand computer networks; including the internet. Understand and explain in depth the difference between the internet and the world wide web. Know what a WAN and LAN. Can describe how they access the internet at school.</p>
Information Technology	<p>Use search technologies effectively. Carry out simple searches to retrieve digital content. Understand that search engines are connected to the internet. Select and use a variety of software on a range of devices, to collect, analyse, evaluate and present data. Use a branching database Think about which software is needed for a task. Create purposeful content.</p>	<p>Use search technologies effectively. Understand the function, features and layout of a search engine. Consider credibility of results at a basic level. Select and use a variety of software on a range of devices, to collect, analyse, evaluate and present data. Make improvements on their digital solutions based on feedback. Make informed choices when presenting information and data. Can share digital content within their community.</p>	<p>Use search technologies effectively. Search with greater complexity for digital content. Explain in detail how credible a webpage and its information is. Select and use a variety of software on a range of devices, to collect, analyse, evaluate and present data. Can accurately respond to feedback on their work. Can comment on the success of their solutions. Objectively review solutions from others. Collaborate with others to create content and effective solutions., using different software.</p>	<p>Use search technologies effectively. Can apply filters when searching for digital content. Explain in detail how credible a website and its content is. Compare a range of digital content sources and rate them in terms of content quality and accuracy. Use critical thinking skills in regards to online communication daily. Select and use a variety of software on a range of devices, to collect, analyse, evaluate and present data. Make clear connections to the audience when designing and creating digital content. Create their own content such as blogs on the internet.</p>

				Use criteria to evaluate the quality of their work. Make improvements and refinements in their digital solutions
Digital Literacy	<p>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour and how to report it.</p> <p>Importance of a secure password. Understand not to share passwords. Know consequences of failure if passwords are not kept safe and secure. Understand the importance of staying safe. Know how to conduct themselves appropriately on the internet. Be aware of more than one way to report unacceptable content and contact.</p>	<p>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour and how to report it.</p> <p>Explore key concepts related to online safety. Help others understand the importance of online safety. Know a range of ways to report inappropriate content and contact.</p>	<p>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour and how to report it.</p> <p>Secure knowledge of common online safety rules. Demonstrate the safe and effective use of different technologies and online services. Relate appropriate online behaviour to their rights for personal privacy and mental well-being for themselves and others.</p>	<p>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour and how to report it.</p> <p>Demonstrate the safe and respectful use of a wide range of different technologies and online services. Can identify more discreet inappropriate online behaviour through critical thinking. Recognise the value of persevering their privacy online for their safety and the safety of others.</p>