



Mabe School
Computing Progressive Skills Grid

<u>Focus</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Digital Literacy	<p>Pupils follow age-appropriate links provided by the teacher to research information.</p> <p>Pupils begin to understand the appropriate and/or relevant vocabulary according to equipment available (e.g. screen, keyboard, mouse, microphone, headphones, iPad)</p>	<p>Pupils develop awareness of keyboard layout and use of a mouse.</p> <p>Pupils use navigation skills to access appropriate parts of a website.</p> <p>Pupils begin to use an appropriate search engine supported by an adult</p> <p>Pupils begin to save and retrieve pictures and text.</p>	<p>Pupils know that computing enables access to a wider range of information & tools to help find specific information quickly.</p> <p>Pupils produce work using a computer, using more advanced features of programs and tools.</p> <p>Pupils work collaboratively to create documents, including presentations.</p> <p>Pupils use desk top publishing tools effectively and understand the differences between a word processor and desk top publisher.</p> <p>Pupils understand the basic structure of a database.</p> <p>Pupils add data to a pre-made database.</p> <p>Pupils use the data in a pre-made database to</p>	<p>Pupils understand that evaluation and improvement is a vital part of a design process and computing allows changes to be made quickly and efficiently.</p> <p>Pupils continue to use technology, including spreadsheets to create graphs and present data in different ways.</p> <p>Pupils design and create a basic database, including using basic data validation.</p> <p>Pupils use a database to answer questions by constructing queries.</p>	<p>Pupils use technology to present their work, showing an increasing degree of skill and using advanced features of software and tools.</p> <p>Pupils select tools which they can use to help them achieve a specific aim and justify these choices to others.</p> <p>Pupils continue to use, search, enter data into and create their own databases</p> <p>Pupils continue to use technology, including spreadsheets to create graphs and present data in different ways.</p>	<p>Pupils use technology to present their work, showing an increasing degree of skill and using advanced features of software and tools. (e.g. using non-linear presentation tools such as Prezi)</p> <p>Pupils select tools which they can use to help them achieve a specific aim and justify these choices to others.</p> <p>Pupils understand the importance of evaluation and adaptation of individual features to enhance the overall product. To continue to use, search, enter data into and create their own databases.</p> <p>Pupils use spreadsheets to create graphs and present data in different ways.</p> <p>Pupils design, construct, evaluate and modify simple models i.e. enter</p>



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			generate graphs and charts. Use technology to create graphs and charts.			data, enter formulae, copy cells and use simple formatting in a spreadsheet.
Computer Science	Pupils begin to understand the purpose of some different technology, e.g. easi-speak microphones, talking tins, tablets, desktop computers, laptops, microphones, cameras etc	Pupils understand the purpose of a range of different technology.	<p>Pupils develop an understanding of technology works and how computers process instructions and commands.</p> <p>Pupils create, edit and refine more complex sequences of instructions for a variety of programmable devices.</p> <p>Pupils use a computer to create basic applications, investigating how different variables can be changed and the effect this has.</p> <p>Pupil use a range of simulations to represent real life situations.</p> <p>Pupils use simulations to make and test predictions.</p>	<p>Pupils understand that computing allows for situations to be modelled which it would be impractical to try out in real life and investigate the effect of changing variables in these simulations.</p> <p>Pupils use software to model 3D objects using cuboids.</p> <p>Pupils develop further their understanding of how technology works and how computers process instructions and commands.</p> <p>Pupil use templates on a computer to create a game, which can be controlled by external inputs, changing parameters and algorithms and investigating the effect this has on the response.</p>	<p>Pupils develop understanding of how technology works; how computers process instructions and commands, including the use of coding languages.</p> <p>Pupils explore ways in which software can be planned.</p> <p>Pupils use assisted programming software to create basic software which interacts with external controllers and elements on screen, creating algorithms and using logic and calculations.</p> <p>Pupils investigate the effect of changing variables in simulations.</p> <p>Pupils know that simulations are often guided by hidden rules</p>	<p>Pupils continue to develop their understanding of how technology works and how computers process instructions and commands, including the use of coding languages.</p> <p>Pupils use more complex programming software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations.</p> <p>Pupils control an onscreen icon using text-based programming, including writing complex written algorithms which involve sensors.</p> <p>Pupils deconstruct and Investigate the effect of changing variables in simulations.</p>



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					<p>Pupils use software to model 3D objects.</p>	<p>Pupils know that simulations are often guided by hidden rules.</p> <p>Pupils use software to model 3D objects, working to a scale.</p> <p>Pupils use tools to design and create a web-based application for smart phones/tablets, considering the market/audience for their application. (Non-stat option).</p>
<p>eSafety and use of the Internet</p>	<p>Pupils understand that people you don't know are strangers.</p> <p>Pupils understand that it is important to be nice to people.</p> <p>Pupils understand that some information is personal.</p> <p>Pupils understand that they must always tell a grown up if they see something that makes them feel uncomfortable.</p>	<p>Pupils understand that people you don't know are strangers and are not always who they say they are.</p> <p>Pupils understand that it is important to be nice to people on the computer as you are on the playground.</p> <p>Pupils understand that some information is personal and needs to be private.</p>	<p>Pupils follow a simple search to find specific information from a website.</p> <p>Pupils find and use appropriate information.</p> <p>Pupils identify how different web pages are organised e.g. graphics, hyperlinks, text</p> <p>Pupils navigate a web page to locate specific information.</p>	<p>Pupils understand and use a small range of web 2.0 tools to work together and collaborate; forums, shared documents etc.</p> <p>Pupils understand how e-mails work and be able to send an email, including choosing a suitable subject and entering addresses in the 'to', 'cc' and 'bcc' fields.</p> <p>Pupils understand & evaluate the dynamics</p>	<p>Pupils use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data.</p> <p>Pupils save and use pictures, text and sound and be able to import into a document for presentation (ref. multimedia presentation)</p> <p>Pupils recognise that the Internet may contain material that is</p>	<p>Pupils create websites for a specific purpose and improve these sites.</p> <p>Pupils continue to collaborate on a project using a range of web tools to support their work- including, but not limited to, google docs/sites/wikis - both with children in their class, other classes and children from other schools.</p>



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		<p>Pupils understand that they must always tell a grown up if they see something that makes them feel uncomfortable.</p>	<p>Pupils understand a website has a unique address.</p> <p>Pupils understand that 'Cloud' based tools can allow multiple people to contribute to shared documents and sites.</p>	<p>of different search engines.</p> <p>Pupils skim read and sift information to check its relevance and modify search strategies.</p> <p>Pupils understand that the information they use needs to be appropriate for the audience they are writing for e.g. copying and pasting difficult language.</p> <p>Pupils recognise that anyone can author on the Internet and sometimes authors can produce content which is offensive, rude and upsetting and to follow school rules if anything is found.</p>	<p>irrelevant, bias, implausible and inappropriate.</p> <p>Pupils understand issues of copyright and how they apply to their own work.</p> <p>Pupils share and exchange their ideas using e-mail and electronic communication- inside the school environment.</p>	<p>Pupils can respond to e-mails (e-safety).</p> <p>Pupils can talk about the different forms of electronic communication and web tools, discuss appropriateness of using different tools in different contexts and the advantages and disadvantages.</p> <p>Pupils use a range of sources to check reliability and validity; recognise different viewpoints and the impact of incorrect data.</p> <p>Pupils understand plagiarism and the importance of acknowledging sources.</p>
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