

Bullion Lane Primary School Progression of Skills in Computing

	Year 1	Year 2	Year 3/4	Year 4/5	Year 6
Text and Multimedia	*Work with others and with support to contribute to a digital class resource which includes text, graphic and sound.	*Generate their own work (help with multimedia where appropriate) combining text, graphics and sound. *Save, retrieve and edit their work.	*Record and present information integrating a range of appropriate media, combining text and graphics in printable form, and sound/video for on-screen presentations which include hyperlinks. *Begin to show an awareness of the intended audience and seek feedback.	*Use advance tools in word processing/DTO software such as tabs, appropriate text formatting, line spacing etc. appropriately to create quality presentations appropriate for a known audience.	*Multimedia work shows restrained use of effects that help to convey meaning rather than impress.
Digital Images (photos, paint, animation)	*Use a range of simple tools in a paint package/image manipulation software to create/modify a picture.	*Use a range of tools in a paint package/image manipulation software to create/modify a picture to communicate an idea. *Create a simple animation to tell a story.	*Manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea.	*Make a short film/animation from images (still and/or moving) that they have sources, captures or created.	*Use images that they have sources/captures/manipulated as part of a bigger project (e.g. presentation or document).
Sound and music (including sound recorders)	*Choose suitable sounds from a bank to express their ideas. *Record short speech.	*Compose music from icons. *Produce a simple presentation incorporating sounds the children have	*Create a simple podcast, selecting and importing already existing music and sound effects as well as their own.	*Create multiple track compositions that contain a variety of sounds.	*Create and share more sophisticated podcasts and consider the effect that their podcasts will have on their audience.

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		captured or created.			
Electronic Communication	*Contribute ideas to a class email to another class/school etc.	*Work collaboratively by email to share and request information of another class or story character.	*Begin to understand the need to abide by school e-safety rules.	*Share ICT work they have done electronically by email, VLE or uploading to authorised sites. *Where possible seek and respond to feedback.	*Abide by school rules for e-safety.
Research and E-Safety	*As a class exercise, children explore information from a variety of sources (electronic, paper based, observations of the world around them etc.) *Show an awareness of different forms of information.	*Children use a search engine to find specific relevant information to use in a presentation for a topic. *They save and retrieve their work.	*Using another curriculum area as a starting point, children ask their own questions then use ICT sources to find answers, making use of search engines, an index, menu, hyperlinks as appropriate. *Children use the information or resources they have found. *Children talk about using ICT to find information/resources noting any frustrations and showing an emerging understanding of internet safety.	*Make use of copy and paste, beginning to understand the purpose of copyright regulations and he need to repurpose information for a particular audience. *Show an understanding that not all information on the internet is accurate. *develop a growing awareness of how to stay safe when using the internet (in school and at home) and that they abide by the	*independently, and with due regard for safety, search the internet using a variety of techniques to find a range of information and resources on a specific topic. *Use appropriate methods to validate information and check for bias and accuracy. *Repurpose and make appropriate use of selected resources for a given audience, acknowledging material used (where appropriate).

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				school's internet safety policy.	
Control (algorithms)	*Control simple everyday devices to make them produce different outcomes.	*Control a device, on and off screen, making predictions about the effect their programming will have. *Children can plan ahead.	*Children are able to type a short sequence of instructions and to plan ahead when programming devices on and off screen.	*Engage in Logo based problem solving activities that require children to write procedures etc. and to predict, test and modify. *Use control software to control devices (using output commands) or to simulate this on screen. *Predict, test and refine their programming.	*Independently create sequence of commands to control devices in response to sensing (i.e. use inputs as well as outputs). *Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose.
Handling Information (databases and graphs)	*As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness/1-2-1 correspondence.	*Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions. *Enter information into a simple branching database, database or word processor and use	*Children use a simple database (the structure of which had been set up for them) to enter and save information on a given subject. *Follow straight forward lines of enquiry to search their date for their own purposes. *Talk about their experiences of using ICT to process data compared with other methods.	*Children work as a class or group to create a data collection sheet and use it to set up a straight forward database to answer questions. *Enter information and interrogate it (by searching, sorting, graphing etc.) *Begin to reflect on how useful the	*Independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. *The need for accuracy is demonstrated and strategies for spotting implausible data are evident. *Children should be able to talk about issues relating to data protection and the need for data

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		<p>it to answer questions.</p> <p>*Save, retrieve and edit their work.</p>		<p>collected data and their interrogation was and whether or not their questions were answered.</p>	<p>security in the world at large (e.g. health, police, databases).</p>
<p>Modelling and simulations (spreadsheets, adventure games and simulations)</p>	<p>*Make simple choices to control a simple simulation program.</p>	<p>*Children are able to play an adventure game and use simple simulation, making choices and observing the results.</p> <p>*Their conversation shows they understand that computers are good at replicating real life events and allowing them to explore contexts that are otherwise not possible.</p>	<p>*Use models and simulations to find things out and solve problems.</p> <p>*Recognise that simulations are useful in widening experience beyond the classroom.</p> <p>*Make simple use of a spreadsheet to store data and produce graphs.</p>	<p>*Set up and use a spreadsheet model to explore patterns and relationships.</p> <p>*Make predictions.</p> <p>*Know how to enter simple formulae to assist this process.</p>	<p>*Set up and use their own spreadsheet, which contains formulae to investigate mathematical models.</p> <p>*Ask 'what if...' questions and change variable in their model.</p> <p>*Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results.</p> <p>*Relate their use of spreadsheets to model situations to the wider world.</p>
<p>Data logging (science and maths)</p>			<p>*Begin to use a data logger to sense physical data (sound, light, temperature).</p>	<p>*Use a data logger confidently, connected to the computer or remotely, to capture continuous or intermittent data readings.</p>	<p>*Children are able to identify their own opportunities for data logging and carry out their own experiments.</p> <p>*They check and question results and are able to spot trends in data and identify when problems may have occurred.</p>

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				<p>*Interpret the results and use these in their investigations.</p> <p>*Realise the advantages of using ICT to collect data that might otherwise be problematic.</p>	
<p>Understand Technologies (individual technologies)</p>	<p>*Show an awareness of the range of device and tools they encounter in everyday life.</p>	<p>*Show an awareness of a range of inputs to a computer (IWB, mouse, touch screen, microphone, keyboard, etc.)</p>	<p>*Begin to show discernment in their use of computing devices and tools for a particular purpose and explain why their choice was made.</p>	<p>*Make choices about the devices and tools, they use for specific purposes and explain them in relation to the context.</p> <p>*Begin to show an awareness of specific tools used in working life.</p>	<p>*Show an understanding of how filtering and monitoring tools affect their use of the school network and internet and compare this with their experience of access outside school.</p>
<p>Understanding Technologies (networks)</p>	<p>*Show an awareness that they create on a computer or tablet device can be shown to others via another device (e.g. printer, projector, Apple TV).</p>	<p>*Begin to show an awareness that computers can be linked to share resources.</p>	<p>*Show an understanding that their password is the key to accessing a personalised set of resources and files (e.g. My Documents).</p> <p>*Show an awareness of where passwords are critical in everyday use (e.g. parents accessing bank details).</p>	<p>*Show an understanding of the school network and how it links computers to resources in school and beyond.</p> <p>*Compare this with other networks they may encounter at home or in the</p>	<p>*Show an understanding of how filtering and monitoring tools affect their use of the school network and internet and compare this with their experience of access outside school.</p>

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				wider world (e.g. banks).	
Understanding Technologies (the internet)		*Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks).	*Show an awareness that not all the resources/tools they use are resident on the device they are using. *Begin to show an understanding of URLs.	*Perform a search using different search engines and check the results against each other, explaining why they might be different. *Show an awareness of the need for accuracy in spelling and syntax to search effectively.	*Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication.