



# DOG KENNEL HILL PRIMARY SCHOOL

## Computing Progression of Knowledge and Skills



KNOWLEDGE/ SKILL	Year 1	Year 2	Year 3/4	Year 4/5	Year 5/6
<b>TEXT AND MULTIMEDIA</b>	Work with others and with support to contribute to a digital class resource which includes text, graphics and sound.	Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound. Save and retrieve and edit their work.	Record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks. Begin to show an awareness of the intended audience and seek feed-back.	Use advanced tools in word processing/ DTP 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.
<b>DIGITAL MEDIA (PHOTOS, PAINT, ANIMATION)</b>	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 sourced, captured or created.	Use images that they have sourced/ captured/ manipulated as part of a bigger project (e.g. presentation or document).
<b>SOUND AND MUSIC (INC SOUND RECORDERS)</b>	Chose 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 captured, or created.	Create a simple podcast, selecting and importing already existing music and sound effects as well as recording 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 the audience.

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			understanding of internet safety.		a given audiences, acknowledging material used where appropriate
<b>CONTROL (ALGORITHMS)</b>	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	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	Independently create sequences of commands to control devices in response to sensing (i.e. use



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		have. Children can plan ahead.		modify. Use control software to control devices (using output commands) or to simulate this on screen. Predict, test and refine their programming.	inputs as well as outputs). Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose.
<b>HANDLING INFORMATION (DATABASES AND GRAPHS)</b>	As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness / one to one 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 it to answer questions. They save, retrieve and edit their work.	Children use a simple database (the structure of which has been set up for them) to enter and save and save information on a given subject. They follow straight forward lines of enquiry to search their data for their own purposes. They 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 setup a straight forward database to answer questions. Enter information and interrogate it (by searching, sorting, graphing etc). Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered.	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 security in the world at large (eg health, police databases).




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<b>MODELLING AND SIMULATIONS</b> <b>(SPEADSHEETS, ADVENTURE GAMES AND SIMULATIONS)</b>	<p>Make simple choices to control a simple simulation program.</p>	<p>Children are able to play an adventure game and use a simple simulation, making choices and observing the results. 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. Recognise that simulations are useful in widening experience beyond the classroom. 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. Make predictions. 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. Ask "what if ..." questions and change variable in their model. Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results. Relate their use of spreadsheets to model situations to the wider world.</p>
<b>DATA LOGGING</b> <b>(SCIENCE AND MATHS)</b>			<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. Interpret the results and use these in their investigations. Realise the advantages of using ICT to collect data</p>	<p>Children are able to identify their own opportunities for data logging and carry out their own experiments. 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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<b>UNDERSTANDING TECHNOLOGIES (THE INTERNET)</b>		Use websites and use a strategy to awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks)	Show an awareness of the resources/tools they use as residents 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 to accurately spell and create a search effectively.	Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication



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