

	Computing Overview					
	Term 1 Digital Media	Term 2 Text & Multimedia	Term 3 Digital Research <i>Children are not expected to do 'open searching'. Links must already have been found and monitored by the teacher.</i>	Term 4 Control 2Simple2Code	Term 5 Data Handling	Term 6 Simulations & Modelling / Communication & Collaboration
KS1 Year A	Funny Bones	Awesome Animals	Take a Painting	Plant Power	Superheroes	Habitats – It's a Wild World
KS1 Year B	Time Travellers	Winter Wonderland	Once Upon a Time	Space	Space	Seasides
Year 1	<p>Graphics 2Paint/2Publish</p> <p>Be able to use an art package as medium to convey their ideas, as one of a range of media available.</p> <p>Be aware of a wider range of tools in the art package.</p> <p>Use a digital camera or digital video camera to take pictures.</p> <p>Be aware that digital pictures and video can be saved on a computer.</p>	<p>Graphics 2CreateaSupestory / 2Publish</p> <p>With support, add captions or sound to digital pictures or video.</p> <p>Put text on screen.</p> <p>Use upper and lower case.</p> <p>Use the space bar.</p> <p>Use the Return key.</p> <p>Use the Shift key to make a capital letter.</p> <p>Use word lists to enter text.</p>	<p>See appendix below</p> <p>With support, use simple search tools on the internet (child-friendly search engines).</p> <p>Talk about the internet and other methods to find information CD players, web sites, TV, video, DVD etc).</p> <p>Explore a variety of electronic information as part of a topic.</p> <p>Select appropriate buttons/icons to navigate websites or stored information.</p> <p>Be aware of the risks involved when using the internet to search.</p>	<p>2go / 2logo / 2Simple2Code – Chimp / Beebots</p> <p>Recognise common uses of information technology outside school.</p> <p>Begin to think about how computer technology works.</p> <p>Know what algorithms are.</p> <p>Accurately follow commands.</p> <p>Give specific commands.</p> <p>Adapt commands so they are more accurate.</p>	<p>2Simple2Count (Pictograms)/ 2Simple2graph (graphing)</p> <p>Develop simple classification skills based on practical sorting activities.</p> <p>With support, use simple data plotting/ graphing programs to produce pictograms and other simple graphs.</p>	<p>2Calculate (Key Stage 1)</p> <p>Understand computer simulations can represent real and virtual environments.</p> <p>Discuss use of simulations and compare with reality.</p> <p>Understand that computer simulations allow the user to explore options and make informed choices.</p> <p>Recognise that different decisions produce different outcomes.</p> <p>Explore simulations or real and virtual</p>

						environments in other curriculum areas e.g. BBC science clips.
Year 2	<p>Graphics Digital cameras / 2publish / 2animate</p> <p>Be able to use an art package as an alternative medium.</p> <p>Use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose.</p> <p>Add captions or sound to digital pictures or video.</p> <p>With support, be able to do simple manipulation of images using an art package or other software eg the digital camera's software.</p> <p>With support, use a storyboard to do simple editing of a sequence of digital pictures or video eg change sequence, add transitions.</p>	<p>2Createastory / 2publish</p> <p>Know that text can be saved and retrieved.</p> <p>Change the font style, size and colour.</p> <p>Print their work using the Print icon.</p> <p>Use the cursor (arrow) keys for simple on screen editing.</p> <p>With support, import graphics and add text.</p> <p>With support, write and send a short email eg to Santa.</p>	<p>See appendix below</p> <p>Talk about different forms of information computers can give us (text, images, sound, multimodal).</p> <p>Recognise the layout of a web page (web addresses, menu buttons and links).</p> <p>Understand websites have a specific address e.g. www.bbc.co.uk</p> <p>Locate links to websites from Favourites or saved hyperlinks.</p> <p>Use key words to search for specific information (with adult supervision).</p> <p>With support, begin to sift, organise and use basic information form the internet.</p> <p>With support from an adult, use key words to search for specific information.</p>	<p>2go / 2logo / 2Simple2Code – Chimp / Beebots</p> <p>Program a sequence of instructions.</p> <p>Debug and algorithm.</p> <p>Make predictions and follow a set of commands in order to move an object on screen.</p> <p>Create a sequence of commands to reproduce a simple geometric shape / pattern.</p>	<p>2Simple2Count (Pictograms)/ 2Simple2graph (graphing)</p> <p>Independently plot data as a pictogram, block chart or bar graph.</p> <p>Be aware that graph types can be changed.</p> <p>Interpret the graphs - discuss the graphs and answer simple questions use the search tools in a prepared database to answer simple questions.</p>	<p>Communication & Collaboration 2Email</p> <p>Know that email exists.</p> <p>With support, logon to an email account.</p> <p>With support, logout from an email account.</p> <p>Compose and send email eg to a pre-arranged partner in another class in the school or in another school.</p> <p>Begin to be aware of email safety rules.</p>

	Term 1 Text & Multimedia	Term 2 Digital Research	Term 3 Data Handling (Y3) Simulation & Modelling (Y4)	Term 4 Control	Term 5 Digital Media	Term 6 Communication & Collaboration
KS2a Year A	Funny Bones	Wicked Warminster	Savage Stone Age	Rotten Romans	Art Attack	Pen Pals
KS2a Year B	Tomb Raiders	The Power Cut	The Culture Club	Terrible Tudors	Killer Plants	Environment
Year 3	<p>Microsoft word / basic PowerPoint / 2createastory (easier to manipulate) / 2type</p> <p>Select text and change the font style, size and colour, bold and underline icons by selecting text. Recognise key features of layout and design such as text boxes, columns, borders, WordArt.</p> <p>Develop further basic drafting and editing skills (e.g. use spell checker).</p> <p>Use cut and paste between applications.</p> <p>Delete, insert and replace text using mouse or arrow keys.</p> <p>Begin to use more than two fingers to enter text.</p> <p>Use a storyboard to edit a sequence of digital pictures or video eg change sequence, add transitions, effects, and sound.</p> <p>With support, be able to create a simple presentation or digital</p>	<p>See appendix below (Chrome can be introduced)</p> <p>Navigate to a website to locate specific information and discuss the process of finding specific information.</p> <p>Begin to understand how search engines work and be aware that there are different search engines (e.g. within sites or to search the wider internet).</p> <p>Use child-friendly search engines to locate different media (text, images, sounds or videos).</p> <p>Develop key questions to search for specific information to answer a problem and use the information to complete a specific task.</p>	<p>2investigate – look at ready-made databases / create own database.</p> <p>Know that collecting and storing information in an organised way helps find answers to questions.</p> <p>Collect and enter data into a prepared database structure Use the search tools to answer simple questions relevant to an investigation.</p> <p>Identify fields.</p> <p>Create a data file and enter data.</p> <p>Sort the data.</p> <p>Learn how to produce graphs from the data.</p> <p>Learn to amend errors.</p>	<p>2Code – gibbon</p> <p>Follow a simple algorithm and know that they have to be accurate in order to work properly.</p> <p>Change variables to accomplish specific goals.</p> <p>Use sequence, selections and repetition in programs.</p> <p>Work with variables and various forms of input and output.</p> <p>Use logical reasoning to explain how simple algorithms work.</p> <p>Detect and correct errors in algorithms and programs.</p>	<p>Digital cameras / Microsoft Paint / PowerPoint / 2animate</p> <p>Be able to use a wider range of tools within an art package as necessary.</p> <p>Do simple manipulation of images using an art package or other software e.g. crop unwanted parts of the photo.</p> <p>Use a digital camera or digital video camera to take appropriate pictures or video for a specific purpose and upload to a computer.</p> <p>Acquire, retrieve and store images from scanners/internet.</p> <p>Discuss implications of copyright (©).</p> <p>Create a sequence of images to form a short</p>	<p>Blogging</p> <p>Understand the need to keep personal information and passwords private (online protection).</p> <p>Know how to respond if asked for personal details or received unpleasant communications.</p> <p>Recognise that cyber bullying is unacceptable and will be sanctioned.</p> <p>Know how to report an incident of cyber bullying.</p> <p>Understand that messages can be quickly sent electronically over distances and that people can reply to them.</p> <p>Know what a 'blog' is.</p>

	<p>film eg to show year 2 pupils what KS2 is like.</p> <p>Discuss, self-assess and evaluate a range of printed and electronic texts when designing publications.</p>	<p>Understand that some information is more relevant than others.</p> <p>Save and retrieve information using Favourites, History or Save As.</p> <p>Know that ICT enables access to wider range of information and tools to help find specific information quickly.</p> <p>Begin to be aware of internet safety rules.</p>	<p>Know that libraries store data about all books and readers on computer and compare this with school's library system.</p>		<p>animation or slideshow.</p>	<p>Make purposeful contributions to a blog.</p> <p>Make purposeful comments on a blog.</p>
Year 4	<p>PowerPoint / Word / 2type</p> <p>Choose from a range of text styles to suit a particular audience.</p> <p>Hold two hands over different halves of the keyboard and use more than two fingers to enter text.</p> <p>Use appropriate editing tools to ensure work is clear and error free (e.g. spell checker, thesaurus, find and replace).</p> <p>Be able to design and create, using skills learned so far, a presentation or digital film eg to show other pupils what they did on a school trip.</p> <p>Begin to evaluate the suitability of the presentation for the given audience.</p>	<p>See appendix below</p> <p>Use child-friendly search engines to locate different media (text, images, sounds or videos).</p> <p>Develop key questions to search for specific information to answer a problem and use the information to complete a specific task.</p> <p>Use appropriate tools to save and retrieve accessed information (Favourites, History, Copy/paste, Save As).</p> <p>Know that anyone can author on the internet and sometimes web</p>	<p>2Calculate (Lower KS2)</p> <p>Explore the effects of changing variables in models and simulations.</p> <p>Ask 'What if?' questions.</p> <p>Make and test predictions (Sequences – create a number machine).</p> <p>Understand how computer simulations can represent real or imaginary situations and how these can help in the wider world.</p> <p>Understand how computer simulations</p>	<p>2Code – gibbon</p> <p>Use on-screen control software to plan, create and run a simple set of instructions.</p> <p>'Debug' my programming to achieve a goal.</p> <p>Understand that prediction, trial and error are important when achieving a specific outcome.</p> <p>Understand and use the concept and advantages of using a REPEAT command in algorithms.</p>	<p>Webcams/cameras / Windows live photo gallery / 2Simple software</p> <p>Understand how images from different sources can enhance a presentation or communicate an idea.</p> <p>Independently take photos and capture video, taking into account the audience and/or purpose for the image.</p> <p>Discuss and evaluate captured images and make decision whether to keep, delete or change them.</p>	<p>Blogging</p> <p>Understand the need to keep personal information and passwords private (online protection).</p> <p>Know how to respond if asked for personal details or received unpleasant communications.</p> <p>Recognise that cyber bullying is unacceptable and will be sanctioned.</p> <p>Know how to report an incident of cyber bullying.</p> <p>Understand that messages can be quickly sent</p>

	<p>With support, make changes to the presentation to make it more suitable for the audience.</p>	<p>content is inaccurate or even offensive.</p> <p>Know that content on the internet at school is filtered and this may not be the case at home.</p> <p>Understand the concept of copyright e.g. what content is legal and safe to use in their own work.</p> <p>Understand the need to unwanted advertising or 'pop-ups' as they can introduce viruses or spyware onto a computer system.</p>	<p>and spread-sheet models allow changes to be made quickly and easily in comparison with real life situations.</p> <p>Understand that changes made to one element of a spreadsheet can impact on other calculations.</p>	<p>Use logical reasoning to explain how simple algorithms work.</p>	<p>Plan, capture, evaluate and improve images to create a short animated sequence which communicates a specific idea.</p> <p>Import music, stills or video into video editing software.</p> <p>Arrange, trim and cut clips to create a short film, adding titles, credits and special effects.</p>	<p>electronically over distances and that people can reply to them.</p> <p>Know what a 'blog' is.</p> <p>Make purposeful contributions to a blog.</p> <p>Make purposeful comments on a blog.</p> <p>Publish my files to a global audience (blog/podcast).</p> <p>Know blog posts have to be censored.</p> <p>View a blog and make appropriate comments.</p>
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	Term 1 Text & Multimedia	Programming & Control	Communication & Collaboration	Sound (Y5) Simulation and Modelling (Y6)	Digital Research	Digital Media
KS2b Year A	Invaders	Feliz Navidad	SOS	Heroes & Villains	To infinity and beyond	It's show time
KS2b Year B	Time Detectives	Time Detectives ctd...It's A Party	Lost!	The Big Bang	The Marvellous Mayans	Choices
Year 5	<p>PowerPoint / Word / BBC Dance Mat Typing www.bbc.co.uk/schools/typing</p> <p>Format text using previously learned skills.</p> <p>Justify text, where appropriate.</p> <p>Cut and paste between applications.</p> <p>Delete/insert and replace text.</p> <p>Make corrections using a range of tools (spell checker, find and replace).</p> <p>Develop confidence using both hands when typing.</p> <p>Plan the structure and layout of a presentation, evaluating and selecting suitable information and media for a purpose.</p> <p>Create hyperlinks to produce a non-linear presentation.</p>	<p>2Code – gorilla</p> <p>Know that algorithms have to be accurate in order to work properly.</p> <p>Know that software relies on codes to run and that a range of different coding language exist (<i>look at the source of code of some websites</i>).</p> <p>Make predictions when creating sequences of commands.</p> <p>Create and test my own algorithm.</p> <p>Use visual programming software to plan, design and create basic software which can interact with an external controller (keyboard or mouse).</p> <p>Test and evaluate software created.</p>	<p>2Email / ESchools</p> <p>Use email as a communication tool to collaborate with other pupils eg to work together on a project.</p> <p>Send a picture or document as an attachment.</p> <p>Know that files can be send via email as attachments.</p> <p>Know that email can be sent or copied to more than one person.</p> <p>Know that an email can be forwarded to another person.</p> <p>Begin to be aware that computer viruses can be sent via email.</p> <p>Be aware of the dangers that electronic communication holds.</p>	<p>Use ICT to select and record voice and sounds and use recorded sound files in other applications.</p> <p>Collect audio from a variety of resources including own records and internet clips.</p> <p>Create a multi-track recording using effects.</p> <p>Edit and refine their work to improve outcomes.</p>	<p>See appendix below</p> <p>Use more advanced searching techniques.</p> <p>Know meaning of domain names and common website extensions (e.g. .co.uk / .org).</p> <p>Choose most appropriate search engine for a task e.g. image search.</p> <p>Use appropriate strategies for finding, critically evaluating, validating and verifying information.</p> <p>Consider authenticity and reliability of web content.</p> <p>Be aware of plagiarism.</p> <p>Identify whether a file has copyright restrictions and can be legally downloaded and used.</p>	<p>Graphics and video – a collaborative piece between year 5/6 with a different theme each year.</p> <p>Understand basic film terminology (long/wide shot; focus; close-up; zoom; panning; crane; tracking).</p> <p>Plan a short film, capturing sounds and video using appropriate hardware).</p> <p>Understand basic film editing terminology (trip; split; video & audio soundtracks; transitions; title; credits).</p> <p>Edit sound and video, adding titles, credits and effects as appropriate.</p> <p>Discuss and evaluate own and others' images and movies.</p>

					Identify how copyright restrictions can affect how a file can be used in own work (e.g. <i>Creative Commons Licensing</i>).	Make changes in response to feedback. Understand the implications of copyright and apply this to my work.
Year 6	<p>PowerPoint / Word / BBC Dance Mat Typing www.bbc.co.uk/schools/typing</p> <p>Select and use a range of software and hardware tools for a task.</p> <p>Abide by copyright rules when creating a multimedia presentation.</p> <p>Organise, refine and present information for a specific audience.</p> <p>Discuss and evaluate the presentation and give reasons for the chosen styles and techniques.</p> <p>Use various display features to communicate to an audience e.g. fact/definition boxes, annotated illustration, leaflet layout.</p>	<p>2Code – gorilla</p> <p>Use simple code language to give specific commands.</p> <p>Create and test algorithms to control interface hardware (e.g. bulb, buzzer or motor).</p> <p>‘Debug’ a simple algorithm so that it is more effective.</p>	<p>2Email / ESchools</p> <p>Share and exchange ideas using e-mail and electronic communication inside the school environment.</p> <p>Create a group or distribution list of contacts from an address book.</p> <p>Use cc. and bcc. facilities and discuss when these should be used.</p> <p>Send ‘group’ e-mails and be aware of the benefits and risks in ‘replying to all’.</p> <p>Add e-mail addresses to a class address book.</p>	<p>Microsoft Excel / 2Calculate (Upper KS2)</p> <p>Explore the effects of changing variables in models and simulations in order to solve a problem.</p> <p>Make and test predictions.</p> <p>Enter formulae into a pre-prepared spreadsheet model to explore the effects of changing variables e.g. using ‘SUM’ to calculate the total of a set of numbers in a range of cells.</p> <p>Understand when and where it is appropriate to use a spreadsheet model or a simulation to support an investigation and explain choices.</p> <p>Understand that spreadsheets can automate functions, making it easier to test variables, e.g.</p>	<p>Data Handling 2investigate / see link below</p> <p>Carry out more complex searches on more complex prepared databases eg be able to answer complex questions such as – Did all the minibeasts in a particular habitat have the same diet?</p> <p>Use AND and OR in their searches.</p> <p>Identify data handling opportunities, set up a data file and enter data.</p> <p>Check for validity and amend errors.</p> <p>Select relevant data and present in appropriate graphs/multimedia presentation.</p> <p>Use the data file to answer complex questions.</p> <p>Evaluate the effectiveness and</p>	

				<p>when planning a budget you can change the number of items and see the changes to total cost.</p> <p>Understand that spreadsheets can be used to explore mathematical models.</p> <p>Understand the need for accuracy and frequent checking when entering formulae.</p> <p>Understand the possible consequences of using inaccurate data or formulae.</p>	<p>impact of data collection.</p> <p>Understand need for data protection and some of the rights of individual's over stored data and the affects in the real world.</p>	
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Appendix

Safe Searching:

- Encourage children to use the following search engines:

www.kidrex.org

www.safesearchkids.com (google based)

www.searchypants.com (teacher can create a search list)

www.googlejunior.com (Y5/6)

www.swiggle.org.uk (Y5/6)

www.primaryschoolict.com (Y5/6)

www.gallery.lgfl.net (Y5/6)

- Internet Explorer: Teacher to save specific links that children can access through the 'Favourites' menu (KS1 mainly).

Databases (Y6):

- <http://www.simonhaughton.co.uk/2011/10/developing-database-skills-in-upper-ks2.html>