

The ICT / Computing Curriculum- *by year group.*

Year 5

eSafety

Text and Graphics

Research & Communication

Multi-Media Authoring

Digital Creativity

Data & Programming

Year 5- ICT Curriculum.

| Learning Objectives | Key Skills | Notes |
|---|--|---|
| Year 5 - Text and Graphics | | |
| <ul style="list-style-type: none"> To continue to develop typing speed and accuracy to develop competency in typing To explain the purpose of and use independently a range of different technology. To make choices about when to use technology, which piece(s) of technology to use, which software/tools they are going to use on the technology and be able to explain their choices to others. | <ul style="list-style-type: none"> Continue to increase their typing speed, and be encouraged to play games at home and school that help with this. Aim to reach the accepted competency rate for children of by the end of Year 5. Continue to become familiar with a range of devices, including tablets, desktop computers, laptops, microphones, cameras etc. and increasingly develop their independence and confidence in using these devices. Be encouraged to increasingly make sensible choices about the technology they use to help them work, and to justify their choices- for example, why they have chosen to use a <i>tablet</i> rather than a laptop, or why they have chosen to use 'PowerPoint' rather than 'Word'? Regularly use word processing and desktop publishing to present their work, combing formatted text with other media and making choices about programs and features to use and justifying these choices to others. | <p>See https://www.2simple.com/2type/</p> <p>See also typing apps in Mac app store – search under 'Typing for Kids'.</p> <p>Good 15 WPM Great 25 WPM SUPER 30+ WPM</p> <p>Typing speed refers to <i>copying</i> WPM, composition WPM will be slower.</p> |

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| Year 5 - Multi-Media Authoring | | |
| <ul style="list-style-type: none"> • To create presentations using a variety of software, for a specific purpose. • To independently create websites for a specific purpose and improve these sites. • Use ICT to create a finished product or set of linked products. Continue to developing consistency in style across linked products. | <ul style="list-style-type: none"> • Use an alternative presentation tool to create a presentation linking into a topic, area of interest or event, • Continue to create websites based on topics, area of interest or events, increasing the complexity of these sites. • To select tools which they can use to help them achieve a specific aim and justify these choices to others. | <p>i.e. Prezi, Keynote Video, podcast, mp3 commentary, radio broadcast, Skype, blog.</p> <p>See https://www.2simple.com/2create/ Powerpoint (using hyperlinks)</p> <p>Demonstrated in presentations, blogs, websites, Apps, using a variety of software.</p> |

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| Year 5 - Research and Communication | | |
| <ul style="list-style-type: none"> To use search technologies effectively and appreciate how results are selected and ranked. To be able to skim read and sift more information to check its relevance and modify their search strategies if necessary. Be discerning in evaluating digital content. To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data. To understand the issues of copyright and how they apply to their own work. To use collaboration tools to work together to produce a joint piece of work. Upload files to an online area e.g. documents, video, photo story, sounds, images. To store and retrieve data using QR codes. | <ul style="list-style-type: none"> Discuss different strategies for finding relevant information e.g. using different more accurate keywords, using more <i>advanced</i> search engine features. Understand the importance of evaluation. Students should be able to check the material they find against other reliable sources. Some websites were designed to be intentionally misleading. These websites may be parodies, satire, hoaxes. Discuss issues of copyright and downloading material e.g. mp3s, images, videos etc. Find images which are creative common licenced and understand the importance of stating their sources. Collaborate on a project using a range of web 2.0 tools to support their work. Begin to collaborate with other children inside and outside of the Samphire Learning Hub-primary. To encode and label using QR codes. | <p>Use safe search engines such as : SafeSearch http://primaryschoolict.com K9 http://www1.k9webprotection.com SEGfL http://www.segfl.org.uk BBC Learn Zone, See advanced searches etc. https://support.google.com/websearch/answer/136861?hl=en http://www.google.com/advanced_search</p> <p>See http://eduscapes.com/tap/topic32.htm See http://www.thinkuknow.co.uk/8_10/cybercafe/cyber-cafe-base/ See http://www.thinkuknow.co.uk/5_7/hectorsworld/ See http://www.bbc.co.uk/education/clips/zkxqxb See http://www.bbc.co.uk/education/clips/z8676sg</p> <p>See http://www.thinkuknow.co.uk/8_10/cybercafe/cyber-cafe-base/ See www.superclubsplus.com</p> <p>See www.superclubsplus.com See https://support.google.com/drive/answer/49008?hl=en See https://www.dropbox.com</p> <p>See https://itunes.apple.com/gb/app/grafter-qr-code-barcode-reader/id416098700?mt=8 Qrafter App</p> |

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| Year 5 - Digital Creativity | | |
| <ul style="list-style-type: none"> To use a range of technology to sequence sound samples, giving consideration to the audience and purpose. To use technology to electronically compose music or sounds including creating melodies and save these as audio files. To use technology to capture and edit video, applying a range of different effects and incorporating numerous video clips. To use technology to create images including using layers (including 3D images) To independently take photographs and record video taking into account the audience and/or purpose for the image/video | <ul style="list-style-type: none"> Use a range of devices to create extended pieces of music using a wide range of pre-recorded samples. Use a range of devices to create music samples and sequence these. Create and plan film trailers incorporating a range of different scenes and effects. Continue to choose to independently record video for a range of purposes. Use image creation tools to create more complex images, including using layers. Understand the differences between an image and a vector drawing. Continue to take photographs for a specific reason or project and/or find appropriate images online. | <p>Audio- use web based on-line tools and iPad apps including synth, drum kit and xylophone.</p> <p>See http://www.jamstudio.com/Studio/index.htm See https://itunes.apple.com/gb/app/alchemy-synth-mobile-studio/id432505977?mt=8</p> <p>See imovie (apple) http://www.apple.com/uk/mac/imovie/ Microsoft Moviemaker (pc) http://windows.microsoft.com/en-gb/windows-live/movie-maker#t1=overview</p> <p>See Photoshop, GIMP, Photo editing using iPad. http://pixlr.com to edit photos online. Use Trimble Sketchup for the 3D modelling task. See http://www.sketchup.com</p> |

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| Year 5 - Data and Programing | | |
| <ul style="list-style-type: none"> • To continue to use, search, enter data into and create their own databases • Explore spreadsheets entering basic formulae create graphs and present data in different ways. • To continue to develop their understanding of how computer and technology works and how computers process instructions and commands, including the use of coding languages. Understand computer networks including the internet. • To explore ways in which software can be created. • To use assisted programing software to create basic software that interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. • To understand that ICT allows for situations to be modelled, or those which it would be impractical to try out in real life and investigate the effect of changing variables in these simulations. Know that simulations are often guided by hidden rules | <ul style="list-style-type: none"> • Continue to use, query and create their own databases as appropriate, linking into work across the curriculum. • Continue to use the computer and spread sheets to create and alter graphs and charts, entering basic formulae for calculations and sorting. • Continue to develop an understanding of how technology works, with a focus on developing computational thinking. Understand computer networks including the internet. • Understand that software relies on codes to run and that a range of different coding languages exist. • Use a range of assisted / visual programing software (e.g. Scratch and/or Kodu) to plan, design and create basic software (for example a simple game), which interact with external controllers (e.g. keyboard and/or mouse). Using the software control the movement and responses of different elements on screen. • Explore a range of increasingly complex simulations, exploring the effect of changing variables and recording the results. | <p>See https://www.2simple.com/2investigate/ See 2graph : http://www.2simple.com/component/virtuemart/age-group/3-5/infant-video-toolkit-downloadable-detail?Itemid=0</p> <p>See Simon Haughton's Excel spreadsheet guide http://www.simonhaughton.co.uk/introducing-spreadsheets/</p> <p>See: Simon Haughton's Computing Theory Guide http://www.simonhaughton.co.uk/computing-theory-for-7-to-11-year-olds.html</p> <p>See http://scratch.mit.edu Apps: Bee-bot https://itunes.apple.com/gb/app/bee-bot/id500131639?mt=8 Hopscotch https://www.gethopscotch.com CargoBot http://twolivesleft.com/CargoBot/ Probot: http://www.primaryict.co.uk/tts-pro-bot-windows-xp-compatible_ibot2_1778.htm Codable: http://www.codable.org KODU http://www.kodugamelab.com Python: http://www.simonhaughton.co.uk/python-programming-guide.html LEGO Mindstorms http://www.lego.com/en-gb/mindstorms/?domainredir=mindstorms.lego.com</p> <p>See BBC Science Clips: http://www.bbc.co.uk/schools/scienceclips/index_flash.shtml Bridge Constructor App: https://itunes.apple.com/gb/app/bridge-constructor-free/id507125352?mt=8</p> |

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| Year 5 - eSafety | | |
| <ul style="list-style-type: none"> • To recognise that the Internet may contain material that is irrelevant, biased, implausible or inappropriate. • To use Social Networking, including Smart Phones (as well as technology in general) safely and responsibly, recognising acceptable / unacceptable behaviour. Check personal settings on social networks. • Understanding the term 'digital footprint' and • To understand the importance of keeping personal data private including passwords. | <ul style="list-style-type: none"> • Be aware that web sites are not always accurate and that information should be checked before it is used. • Use safe platform to communicate with other children (in school) and practise esafety and responsible communication. Practice changing personal settings and discussing the differences and consequences. • Discuss the consequences of irresponsible behaviour using smart phones and other web-enabled devices. • Create passwords that are easy to remember but difficult to guess | <p>See: http://www.superclubsplus.com See http://eduscapes.com/tap/topic32.htm See http://www.thinkuknow.co.uk/8_10/cybercafe/cyber-cafe-base/ See http://www.thinkuknow.co.uk/5_7/hectorsworld/ See http://www.bbc.co.uk/education/clips/zkxqxn See http://www.bbc.co.uk/education/clips/z8676sg</p> <p>See: Thinkuknow http://www.thinkuknow.co.uk/8_10/control/ COVERS: CHATTING, INSTANT MESSENGER, EMAIL, MOBILES, CHAT ROOMS, SOCIAL NETWORKS, FILE SHARING, GAMING, CYBER-BULLYING http://www.kidsmart.org.uk http://www.bbc.co.uk/webwise/topics/safety-and-privacy/</p> <p>See: http://www.bbc.co.uk/webwise/0/22717881 See Thinkuknow www.thinkhttp://www.thinkuknow.co.uk</p> |