The ICT / Computing Curriculum- by year group.

Year 4

Year 4- ICT Curriculum.

Learning Objectives	Key Skills	Notes
Year 4 - Text and Graphics		
• To continue to develop typing speed and accuracy to develop competency in touch typing	• Continue to increase their typing speed, and be encouraged to play games at home and school which help with this. Aim to reach the accepted competency rate for children of **20WPM** by the end of Year 4.	*Just like handwriting, it is important that children type themselves when using a computer- no matter how slow they may be!* Typing speed refers to copying WPM, composition WPM will be slower.
• To understand the purpose of and use independently a range of different technology efficiently.	• 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.**	See 'tools for teaching typing' for software and websites to use. • Ongoing word processing using BBC Dance Mat Typing www.bbc.co.uk/schools/typing assess using Rank My Typing www.rankmytyping.com • To use ipads (where possible), laptops, microphones and cameras. To be able to save and retrieve work.
• 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.	• 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 *tablet* rather than a laptop, or why they have chosen to use '2 Tell a Story' rather than 'Word'?	• Project based work Give pupils a choice of equipment to use (eg ipads, laptops, microphones etc). Pupils to choose, use and justify their choices while completing a project based task.

eSafety　　Text and Graphics　　Research & Communication　　Multi-Media Authoring　　Digital Creativity　　Data & Programming

Learning Objectives	Key Skills	Notes
	Year 4 - Research and Communication	
To draw information from a question to develop keywords to find relevant information e.g. What did Romans eat?	Know that they can use search engine tools for different types of media e.g. K9 (Ipads), Bing, Dorling Kindersley Images, video, sound but understand that the results are not always what you expect	**Higher Order Research Skills** **R**apid searching and browsing, **A**ssessing the quality and synthesizing **P**rioritising, ranking **S**witching attention between activities (multi-tasking)
• To understand the dynamics of a search engine and know that there are different search engines (some within specific sites e.g. BBC, and some the whole of the Internet e.g. Google, Yahooligans, Ask Jeeves) • To be able to skim read and sift information to check its relevance and modify their search strategies if necessary	• To evaluate different search engines and explain their choices for using these for different purposes. Be aware that web sites are not always accurate and that information should be checked before it is used. • Develop keywords and enter them into a chosen search engine, using more advanced search engine features.	• Advanced searches: Use : , AND,OR,NOT,AND NOT to increase/decrease search information. • To use preselected websites (including some 'Red Herrings'. Pupils to relect relevant sites. • Superclubs plus www.superclubsplus.com

Learning Objectives	Key Skills	Notes
Year 4 – Multi-Media Authoring		
• To create a website, giving thought to it's audience and including links, images and embedded media and documents.	• Work together to create a website based on a topic, area of interest or event (for example using 2Create) which incorporates hyperlinks, images and embedded media/documents.	• Create a website using Education Weebly www.educationweeebly.com
• To be discerning in evaluating digital content. To understand that evaluation and improvement is a vital part of a design process and ICT allows changes to be made quickly and efficiently	• Use ICT to create a finished product or set of linked products, making revisions to their work.	• Create an e-book: Ipad app. 'Book Creator' • Include text, images, videos, QR codes
• To begin to recognise that anyone can author on the Internet and sometimes authors on the Internet can produce content which is offensive, rude and upsetting and to follow school rules if anything is found.		

eSafety   Text and Graphics   Research & Communication   Multi-Media Authoring   Digital Creativity   Data & Programming

Learning Objectives	Key Skills	Notes
Year 4 – Digital Creativity		
• To create basic stop motion animations using technology. • To independently record video and edit using a range of devices for a range of purposes. • To use technology to create images and apply effects to these images. • To use technology to edit video, applying basic effects and transitions. • To independently take photographs taking into account the audience and purpose for the image. • To use a range of technology to sequence sound samples, giving consideration to the audience and purpose.	• Create simple stop motion animations. • Independently choose to record video for a range of purposes, paying attention to the quality of video capture. • Use a range of tools to create more complex images using a computer (no layering) • Edit video using a range of basic video editing applications. • Continue to take photographs for a specific reason or project and/or find appropriate images on-line. • Use a range of devices to create extended pieces of music using a wide range of pre-recorded samples.	• Create a pictorial animation iPad – Animation HD app Laptops – 2Animate • Record videos using: iPads Tough cams • Editing images using Pixlr iPad – Pixlr Express app Laptops – www.pixlr.com • Edit videos iPad – iMovie app Laptops – Movie Maker • Finding images on line Bing image search Dorling Kindersley images • Creating music IPads – Jam Studio app 　　　Tune Train app 　　　Synth app Laptops – www.jamstudio.com 　　　2 Simple Music tool kit

Learning Objectives	Key Skills	Notes
Year 4 - Data and Programing		
• To be able to design and create a basic database, including using basic data validation.	• Plan and create their own database, creating fields and applying simple data validation.	• Planning and creating Databases 2 Investigate (Purple Mash)
• To use a database to answer questions by constructing queries.	• Use pre-made databases and those that they have created themselves to answer questions by constructing basic queries. Understand how to translate questions into queries to find information e.g. to find the most common etc. Use other software to present these findings as appropriate	
• To use begin to use spreadsheets to create graphs and present data in different ways.	• Begin to use a spreadsheet to enter data and create graphs.	• Microsoft Office Excel – See: http://www.simonhaughton.co.uk/introducing-spreadsheets/
• To develop a more secure understanding of how computer and technology works and how computers process instructions and commands.	• Begin to plan more complex sequences of instructions for on-screen and floor turtles, test and amend these instructions.	
• 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.	• Use computer game design software to plan, design and make their own, multi-level game, controllable by external inputs, changing parameters and responses. (e.g. using 2DIY)	• Planning and amending a sequence of instructions IPads – Hopscotch app. Laptops –Logo
• 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.	• Continue to explore simulations as appropriate and as link with other curriculum areas. (I.e. Excel to plan building supplies to construct different houses or schools)	• Planning and designing computer games iPads - 2 DIY app laptops – 2 DIY (Purple Mash) • Simulations See BBC Science Clips • Representing 3D objects 2 Design and Make (Purple Mash)
• To use software to model 3D objects made up of cuboids.	• Begin to use software to represent 3D objects or items.	

Learning Objectives	Key Skills	Notes
Year 4 - eSafety		
• To begin to use Social Networking in school, posting appropriately under direction of a responsible adult (eg. Class teacher). • To understand how e-mails work and be able to send an e-mail, including choosing a suitable subject and entering addresses in the 'to', 'cc' and 'bcc' fields. • To share and exchange their ideas using e-mail and electronic communication- inside the school environment. • To use technology safely and responsibly, recognising acceptable / unacceptable behaviour. Understanding the term 'digital footprint'. • To understand the importance of keeping personal data private including passwords.	• Use safe online platform to communicate with other children (in school) and practise esafety and responsible communication linked to class work. • Collaborate with peers on a project to produce a finished piece to support topic work- using the 'Cloud' or within the Samphire Learning Hub- primary domain using forums, shared documents Wiki's etc. • Contribute/edit/refine contributions to a shared document and understand that all changes are visible • 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.	See Cybercafé. • To use search technologies effectively and appreciate how results are selected and ranked. • To use Rebecca Avery's e-safety plan of whole school overview. • To follow Year 4 plan. • Save documents b to Dropbox • To use '2 email' prior to using class emails, for skills based work. • .Emails- set up class emails to allow pupils to email each other.

eSafety   Text and Graphics   Research & Communication   Multi-Media Authoring   Digital Creativity   Data & Programming

eSafety　Text and Graphics　Research & Communication　Multi-Media Authoring　Digital Creativity　Data & Programming