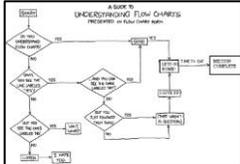


Year 4- ICT Curriculum.

Learning Objectives	Key Skills	Notes
Using technology		
<ul style="list-style-type: none"> • To continue to develop typing speed and accuracy to develop competency in typing • To understand 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. 	<p>Throughout KS2 children should:-</p> <ul style="list-style-type: none"> • Continue to become familiar with a range of devices, for example tablets, desktop computers, laptops, microphones, cameras etc and increasingly develop their independence and confidence in using these devices. • 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. • 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 an <i>easi-speak</i> microphone rather than the computer to record sound. 	<p><i>Just like handwriting, it is important that children type themselves when using a computer- no matter how slow they may be!</i></p> <p>Typing speed refers to copying WPM, composition WPM will be slower.</p> <p>See 'tools for teaching typing' for software and websites to use. http://10fastfingers.com/typing-test/english <i>BBC Dancemat1</i></p>
Using the Internet		
<ul style="list-style-type: none"> • To draw information from a question to develop keywords to find relevant information e.g. What did Romans eat? • 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, Yahoo, Ask Jeeves) • To be able to skim read and sift information to check its relevance and modify their search strategies if necessary • To understand that the information they use needs to be appropriate for the audience they are writing for e.g. copying and pasting difficult 	<ul style="list-style-type: none"> • Know that they can use search engine tools for different types of media e.g. Google Image Search, video, sound but understand that the results are not always what you expect • 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. • Present their findings using a word processing or multimedia/publishing package for a specific audience 	<p>Researching Power point presentations.</p> <p>Using QR codes to direct CH's research and CH to create codes to direct research.</p>

<p>language</p> <ul style="list-style-type: none"> To evaluate different search engines and explain their choices for using these for different purposes 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 E-Safety 		
<p>To understand a small range of web 2.0 tools that can help them work together and collaborate; forums, shared documents etc</p> <ul style="list-style-type: none"> To use the web 2.0 tools to work collaboratively on a project (e.g. sharing comparative data, creating a story) 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. 	<ul style="list-style-type: none"> Understand how e-mails work, and send e-mails between people within the <i>West Earlham</i> domain, including using the 'cc' and 'bcc' fields. Use e-mail to e-mail work completed in school to their teachers and peers. Collaborate with peers on a project to produce a finished piece to support topic work- using google documents within the woodlands-primary domain. Contribute/edit/refine contributions to a shared document and understand that all changes are visible 	
Creating and Publishing		
<ul style="list-style-type: none"> To create a website, giving thought to it's audience and including links, images and embedded media and documents. To understand that evaluation and improvement is a vital part of a design process and ICT allows changes to be made quickly and efficiently 	<ul style="list-style-type: none"> Work together to create a website based on a topic, area of interest or event (for example using goggle sites) which incorporates hyperlinks, images and embedded media/documents. Use ICT to create a finished product or set of linked products, making revisions to their work. 	
Digital Media		
<ul style="list-style-type: none"> To know they can record sound using ICT that can be stored and played back and independently using a range of tools to record sound, choosing appropriate tools for the situation and purpose. 	<ul style="list-style-type: none"> Create simple stop motion animations. Use a range of devices to create extended pieces of music using a wide range of pre-recorded samples. Independently choose to record video for a 	<p>I-motion IPAD</p> <p>Garage band</p>

<ul style="list-style-type: none"> To use a range of technology to sequence sound samples, giving consideration to the audience and purpose. To create basic stop motion animations using technology. To independently record video using a range of devices and 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/or purpose for the image. 	<p>range of purposes, paying attention to the quality of video capture.</p> <ul style="list-style-type: none"> 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. 	<p>IMOVIE</p>
<p>Using Data</p>		
<ul style="list-style-type: none"> To continue to use technology, including spreadsheets to create graphs and present data in different ways. To be able to design and create a basic database, including using basic data validation. To use a database to answer questions by constructing queries. 	<ul style="list-style-type: none"> Plan and create their own database, creating fields and applying simple data validation. Use pre-made databases and those which 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 <i>Begin to use a spread sheet to enter data and create graphs.</i> 	<p><i>Use TextEase Data for database work.</i></p> <p><i>Links to Maths and Science</i> http://nces.ed.gov/nceskids/graphing/classic/</p> <p><i>Microsoft Excel</i></p>
<p>Programming and Control</p>		
<ul style="list-style-type: none"> To continue to develop their understanding of how computer and technology works and how computers process instructions and commands. <i>To create, edit and refine more complex sequences of instructions for a variety of programmable devices</i> 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. 	<ul style="list-style-type: none"> <i>Begin to plan more complex sequences of instructions for on-screen and floor turtles, test and amend these instructions. (e.g. using RoboMind)</i> Use computer game design software to plan, design and make their own, multi-level game, controllable by external inputs, changing parameters and responses. (e.gf using 2DIY) 	 <p><i>Tynker – Scratch Jnr –Scratch</i></p> <p><i>Floor turtles planning a route around a map</i></p>

Modelling and Simulations

<ul style="list-style-type: none">• 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.• TO use software to model 3D objects made up of cuboids.	<ul style="list-style-type: none">• Begin to use software to represent 3D objects or items.• Continue to explore simulations as appropriate and as link with other curriculum areas.	<p>Use Lego Digital Designer for 3D modelling task.</p> <p>Minecraft</p>
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