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The core principles of the ICT curriculum.

The following core principles should underpin all ICT teaching and technology use within West Earlham Junior School. [These elements are taken from the Naace ICT Framework, and the text below is adapted from this framework].

Digital literacy (*DLi*)

Digital literacy forms the backbone of the ICT curriculum at West Earlham Junior School. Children should develop ICT skills that can thoughtfully applied in a range of different situations, with children developing increasing independence in the choices they make over which technology to use to help them reach the desired outcome. As they progress through KS 2 children will become increasing confident in the application of their digital skills, becoming increasingly efficient and effective communicators, collaborators and analysts, showing imagination and creativity in their use of ICT in different aspects of their learning and life beyond school.

The development of digital literacy is underpinned through expectation that ICT skills and objects areas applied across all curriculum subjects.

Skills

Children should be provided with the opportunity to learn, refine and improve their digital skills, across the range of ICT curriculum areas outlined above.

Technology in the world

Children should develop an understanding of how technology makes a difference in all aspects of life- at home, at school and in the workplace, as well as considering the impact technology has had on society over the years.

Technical understanding

Children should develop the knowledge and understanding of how technology works.

This extends from an awareness that there is 'something inside' a piece of technology to make it work (EYFS), progressing through KS1 and KS2 to children creating their own simple programs including games, utilities and applications with exposure to computer codes and scripts.

Safe and Responsible Use.

See E-Safety section below.

The extent to which these core areas are addressed should be identified as part of medium term planning for ICT in West Earlham School.

Curriculum Structure.

To help ensure children have the opportunity to develop a wide range of skills, experiences and competencies with technology, the curriculum has been broken down into 8 key areas, with the core principles permeating through each area.

Using a computer- *mouse skills, typing etc*

Using the internet - *Researching, finding information etc...*

Communicating and Collaborating On-line- *E-mails, Collaborative working, Video Conferencing etc...*

Creating and Publishing: *Anything that involves presenting information in some way using ICT- word processing, presentations, blogging, websites etc...*

Digital Media- *Photo editing and image manipulation, video and video editing, audio recording and editing and animation (some animation can also be programming)*

Programming and Control- *making something 'happen' using ICT (control, movement etc..).*

Modelling and Simulations- *Representing real life situations, scenarios or items on the computer.*

Using Data- *Spreadsheets (including using formulas), Databases and any other work which involves either sorting, presenting or manipulating data of some sort.*

The emphasis on Programming increases as children move through West Earlham Junior School.

It is important that technology is used as a day-day element of school life and across all subject areas, therefore if opportunities to use ICT arise which do not fall within the curriculum for each year group they should be taken advantage of. .

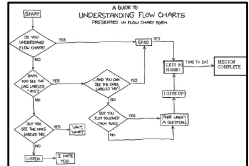
E-Safety

E-safety is a fundamental element of ICT teaching and technology use at West Earlham Junior School. The school has a separate E-Safety policy, and E-Safety sessions should take place regularly in each year group as part of both ICT and PSHE sessions.

Year 3- ICT Curriculum.

Learning Objectives	Key Skills	Notes
Using technology (objectives throughout KS2)		
<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>Animal typing IPAD</i></p>
Using the Internet		
<ul style="list-style-type: none"> To follow a simple search to find specific information from a web site To find and use appropriate information To identify how different web pages are organised e.g. graphics, hyperlinks, text To navigate a web page to locate specific information To know that ICT enables access to a wider range of information and tools to help find specific information quickly To understand a website has a unique address 	<ul style="list-style-type: none"> Develop key questions to search for specific information with purpose to answer a problem e.g. to find out about different Roman Gods. Understand how a search engine works and begin to create and enter appropriate search strings. Save and retrieve accessed information through the use of Favourites, History, and Save As Understand that some information found through searching is more relevant than others Use the information purposefully to complete specific tasks e.g. copy, paste and edit relevant information (ref. creating and publishing unit) Talk about and describe the process of finding 	<p>Delivered as part of the 'Creating and Publishing' unit and alongside the day-day curriculum. Answering big questions in Philosophy.</p> <p>Researching Ancient Greeks/Romans/Stone Age Using QR codes to guide CH's research.</p> <p>Learn to create QR codes to direct other people to useful pages.</p> <p>Research for PPT presentations</p>

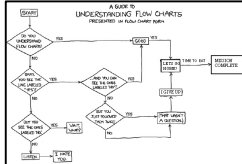
	specific information	
Communicating and collaborating online		
<ul style="list-style-type: none"> To understand that Cloud based tools can allow multiple people to contribute to shared documents and Google Sites 	<ul style="list-style-type: none"> Begin to use on-line tools, such as Google docs and sites to collaborate together- for example by working together to add ideas to a word bank, write a shared story 	<p><i>West Earlham mail disabled for individual children. Google drive used to share write poetry, annotate text with ideas both classes working on same task at the same time, ideas in real time. Across year groups.</i></p>
Creating and Publishing		
<ul style="list-style-type: none"> To continue to produce work using a computer, using more advanced features of programs and tools. To work collaboratively together to create documents, including presentations. To use desk top publishing tools effectively and understand the differences between a word processor and desk top publisher. 	<ul style="list-style-type: none"> Continue to word process a range of work in other curriculum areas, using more advanced word processing features such as columns and borders. Work together to collaboratively produce a presentation using cloud based tools. Understand the differences between a word processor and desktop publishing tools and use desk top publishing tools to create posters, leaflets and other documents which require specific formatting. 	<p>Typing up stories, adding articles to BLOGs, reviewing school trips.</p> <p>Using Microsoft publisher for Newspapers and Posters.</p> <p>Articles on the blog.</p> <p>Writing up Science experiment comments onto BLOG and responding to photos.</p>
Digital Media		
<ul style="list-style-type: none"> To understand they can compose music using icons to represent musical phrases To understand ICT allows easy creation, manipulation and change 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. To independently record video using a range of devices and for a range of purposes. 	<ul style="list-style-type: none"> Use a computer to sequence short pieces of music using a small selection of pre-record sounds. Independently record video for a range of purpose, paying attention to the quality of the video capture. Take photographs for a specific reason or project and/or find appropriate images on-line. Create a video out of still images. 	<p>Audio- use 2simple 2sequence. Garage band IPAD</p> <p>IMOVIE trailers for introducing a topic Romans.</p> <p>Take photos of the progress of garden allotment, show the growth of plants, change of environment from a fixed point. Time lapse.</p> <p>Edit photos into a video with captions.</p>

<ul style="list-style-type: none"> To independently take photographs taking into account the audience and/or purpose for the image. To create digital artefacts using photographs which they have taken or found. To edit photographs using a range of basic tools. 	<ul style="list-style-type: none"> Use the computer to preform photo edits and create a range of digital creations using photos. 	Edit photos of plants to change colours. Photo apps on the IPAD
<ul style="list-style-type: none"> To understand the basic structure of a database. To be able to add data to a pre-made database. To use the data in a pre-made database to generate graphs and charts. To use technology to create graphs and charts. 	<ul style="list-style-type: none"> Continue to use technology to create graphs and charts. Understand which a database is, and the basic structure of a database. Create graphs from pre-made databases, and enter their own data into a database and generate graphs using these. Use other software to present these findings as appropaiete. 	Use <i>TextEase Data</i> for database work. Links to Maths and Science http://nces.ed.gov/nceskids/graphing/classic/
Programming and Control		
<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. To create, edit and refine more complex sequences of instructions for a variety of programmable devices. To use a computer to create basic applications, investigating how different variables can be changed and the effect this has.. 	<ul style="list-style-type: none"> Continue to develop understanding of how a computer and technology works, focusing on computational thinking. Begin to plan more complex sequences of instructions for on-screen and floor turtles test and amend these instructions. (e.g. using RoboMind) Use software to make basic puzzles and quizzes, changing parameters (e..g time allowed, points, number of pieces etc) to customise the puzzle or quiz (e.g. 2DIY) 	 <p><i>Tynker – Scratch Jnr –Scratch</i></p> <p><i>Floor turtles planning a route around a map(Greek Islands, Roman military Campaign, Diary Recount)</i></p>
Modelling and Simulations		
<ul style="list-style-type: none"> To use a range of increasingly simulations to represent real life situations. Use simulations to make and test predictions. 	<ul style="list-style-type: none"> Continue to explore simulations as appropriate and as link with other curriculum areas and discuss the benefits of using these simulations Use simulations to make and test predictions. 	<i>Minecraft</i>

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 	<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>are writing for e.g. copying and pasting difficult 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 	<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. 	<p>I-motion IPAD</p> <p>Garage band</p>

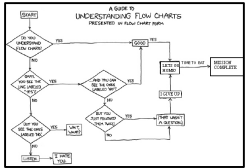
<p>situation and purpose.</p> <ul style="list-style-type: none"> To use a range of technology to sequence sound samples, giving consideration to the audience and purpose. To create basic stop motion animations using technology. To independently record video using a range of devices and for a range of 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. 	<ul style="list-style-type: none"> 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. 	<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 	<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>

response.		
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>

Year 5- 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. • 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. Google search http://10fastfingers.com/typing-test/english</p>
Using the Internet		
<ul style="list-style-type: none"> • To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data • To save and use pictures, text and sound and be able to import into a document for presentation (ref. multimedia presentation) • To recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate • To understand the issues of copyright and how they apply to their own work 	<ul style="list-style-type: none"> • Discuss different strategies for finding relevant information e.g. using different keywords to find information on a given enquiry • Use a range of keywords to find different sources of information and enter them into a chosen search engine • Modify searches further to find relevant information for a report • Select and combine information from a range of different sources and present their findings using a word processing or multimedia/publishing package for a specific audience • Be aware that web sites are not always accurate and that information should be checked before it is used. 	<p>Research for inquiry science.</p> <p>E-safety sessions</p>

	<ul style="list-style-type: none"> 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. 	
Communicating and collaborating online		
<ul style="list-style-type: none"> To share and exchange their ideas using e-mail and electronic communication- inside the school environment. To use collaboration tools to work together to produce a joint piece of work 	<ul style="list-style-type: none"> Continue to use e-mail to e-mail within <i>West Earlham</i> and to e-mail work completed in and out of school to their teachers and peers. Collaborate on a project using a range of web 2.0 tools to support their work- including, but not limited to , goggle documents and sites (within the <i>West Earlham</i> domain) Begin to collaborate with other children outside of <i>West Earlham</i> (e-safety paramount) Upload files to an online area e.g. video, photo story, sounds, images 	<p>All delivered as part as general curriculum.</p> <p>Emails to begin. Link to google documents</p>
Creating and Publishing		
<ul style="list-style-type: none"> To create non-traditional presentations using a range of tools, for a specific purpose To create websites for a specific purpose and improve these sites. To use technology to help them present their work, showing an increasing degree of skill and using advanced features of software and tools. To select tools which they can use to help them achieve a specific aim and justify these choices to others. 	<ul style="list-style-type: none"> Use an alternative presentation tool (for example <i>Prezi</i> or <i>Ahead</i>) 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. Continue to 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. Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products. 	
Digital Media		
<ul style="list-style-type: none"> <i>To use a range of technology to sequence sound samples, giving consideration to the</i> 	<ul style="list-style-type: none"> <i>Use a range of devices to create extended pieces of music using a wide range of pre-</i> 	<p>Audio- use web based on-line tools and iPad apps.</p>

<p><i>audience and purpose.</i></p> <ul style="list-style-type: none"> 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. To understand the difference between a image and a vector drawing. To independently take photographs and record video taking into account the audience and/or purpose for the image/video. 	<p><i>recorded samples.</i></p> <ul style="list-style-type: none"> 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. Use image creation tools to create more complex images, including using layers. Understand the differences between an image and a vector drawing. Continue to choose to independently record video for a range of purposes. Continue to take photographs for a specific reason or project and/or find appropriate images on-line. 	<p>I-motion IPAD</p> <p>Garage band</p> <p>IMOVIE</p> <p>Robert Kett documentary</p>
<p>Using Data</p>		
<ul style="list-style-type: none"> To continue to use, search, enter data into and create their own databases To continue to use technology, including spreadsheets to create graphs and present data in different ways.. 	<ul style="list-style-type: none"> Continue to use the computer and spreadsheets to create and alter graphs and charts. Continue to use, query and create their own databases as appropriate, linking into work across the curriculum. If appropriate and cross curricular links present the opportunity, begin to explore spreadsheets entering basic formulae. 	<p>Graphs using excel</p> <p>Data loggers</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, including the use of coding languages. To explore ways in which software can be planned. To use assisted programing software to create basic software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. 	<ul style="list-style-type: none"> Continue to develop an understanding of how technology works, with a focus on developing computational thinking. Understand that software relies on codes to run and that a range of different coding languages exist. Explore different ways in which computer software can be planned. Use a range of assited 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 	 <p>Scratch</p> <p>Tynker</p>

	<p>elements on screen.</p> <ul style="list-style-type: none"> • Use visual programming based software to plan, design and create basic non-game software which use logic, algorithms and calculations. <i>(e.g. use scratch to create an interactive maths quiz for a KS1 child)</i> 	
<p>Modelling and Simulations</p>		
<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. • Know that simulations are often guided by hidden rules • To use software to model 3D objects. 	<ul style="list-style-type: none"> • Use software to create models of 3D objects, landscapes or items. • Explore a range of increasingly complex simulations, exploring the effect of changing variables and recording the results. 	<p>Use Trimble Sketckup for the 3D modelling task.</p>

Year 6- 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. 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</p>
Using the Internet		
<ul style="list-style-type: none"> To check plausibility of information from a variety of sources on the same topic To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data To understand plagiarism and the importance of acknowledging sources 	<ul style="list-style-type: none"> Understand the dynamics of different search engines and know that there are different search engines which may focus on different media Modify searches further to find relevant information for a report Talk about where web content might originate from by looking at web address, author, other linked pages Talk about validity and plausibility of information by checking other sources Recognise the impact of using incorrect information in their work Skim and select information checking for bias and different viewpoints 	<p>Useful websites for Plausibility:</p> <ul style="list-style-type: none"> <i>Investigate plausibility</i> http://www.school-portal.co.uk/GroupHomepage.asp?GroupID=257454 Dog Island Free Forever: A puppy dog paradise. http://www.thedogisland.com The Pacific Northwest Tree Octopus:http://zapatopi.net/treeoctopus.html Victorian Robots:http://www.bigredhair.com/robots/index.html

Communicating and collaborating online

<ul style="list-style-type: none"> • To use appropriate forms of communication to, share information or ideas • To use collaboration tools to work together to produce a joint piece of work with children both inside <i>West Earlham</i> and in other schools. 	<ul style="list-style-type: none"> • Continue to collaborate on a project using a range of web 2.0 tools to support their work- including, but not limited to , goggle documents and sites- both with children in their class, other classes and children from other schools. • Respond to e-mails sent from outside the woodlands-primary domain using their <i>West Earlham</i> Junior e-mail account. (e-sfatey paramount) • Talk about the different forms of electronic communication and web 2.0 tools, discuss appropriateness of using different tools in different contexts and the advantages and disadvantages 	<p>Collaboration and e-mails with others schools as part of transition to high school.</p> <p><i>West Earlham</i> e-mail account allows for monitored and filtered e-mailing outside of the woodlands-primary domain.</p>
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Creating and Publishing

<ul style="list-style-type: none"> • To use tools to help them design and create a web based application for smart phones/tablets, giving consideration to the market/audience for their application. • To create websites for a specific purpose and improve these sites. • To use technology to help them present their work, showing an increasing degree of skill and using advanced features of software and tools. • To select tools which they can use to help them achieve a specific aim and justify these choices to others., • Understand the importance of evaluation and adaptation of individual features to enhance the overall product. 	<ul style="list-style-type: none"> • Continue to create websites based on topics, area of interest or events, increasing the complexity of these sites. • Continue to create presentations which link into a topic, area of interest or event, choosing an appropriate tool or service • Create a web based application for a smart phone or tablet with consideration for the audience- containing information about a topic, trip, the school or to support work in other areas of the curriculum. • <i>Create a non-linear presentation</i> • Continue to 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. • Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products. 	
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Digital Media

<ul style="list-style-type: none"> • <i>To use technology to electronically compose music or sounds including creating melodies and save these as audio files. To begin to recognise the different layers of sound in a professional broadcast and use technology to record and manipulate music/sound refining for a given audience or project</i> • To use technology to create a stop motion animations and add audio and video effects to these animations. • To use a computer to add complex effects to photographs and to preform common photograph edits (e.g. red eye removal) • To compare different image creation and editing tools and select the most appropriate tool to use, justifying their choices. • 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 music samples and sequence these. • Independently choose and use an appropriate device to record sounds in order to create a sound file and use software manipulate sounds using computer software – e.g. remove unwanted silences/trimming start and end combine to make a podcast or similar broadcast. • Create stop motion animations and combine with video and audio effects. • Apply more complex effects to photographs using a computer. • Compare and contrast different image creation and editing tools across a range of platforms. • Continue to choose to independently record video for a range of purposes. • Continue to take photographs for a specific reason or project and/or find appropriate images on-line. 	<p>Audio- use web based on-line tools, audacity on a computer and iPad apps. Focus on using ambient sounds.</p>
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Using Data

<ul style="list-style-type: none"> • To continue to use, search, enter data into and create their own databases.. • To continue to use technology, including spreadsheets to create graphs and present data in different ways. To be able to design, construct, evaluate and modify simple models i.e. enter data, enter formulae, copy cells and use simple formatting in a spreadsheet. • To use a spreadsheet to draw a graph to show data 	<ul style="list-style-type: none"> • Continue to use, query and create their own databases as appropriate, linking into work across the curriculum • Understand what a spreadhseet is and the basic features of a spreadsheet and how these may be used in real life applications. • Linked into a theme, or real life application, create a spreadhseet, enter basic formulae (simple calculations and SUM) and change data in a spreadsheet to model situations and answer 'What if...' questions. 	
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<ul style="list-style-type: none"> To understand that ICT allows quick and easy changes to be made to different variables once a spreadsheet is set up. Talk about how the spreadsheet helps them to manipulate a model easily 		
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Programming and Control

<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, including the use of coding languages. To use assisted programming software to create basic software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. To use assisted programming software to more complex software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. To control an on screen icon using text based programming, including writing complex written algorithms which involve sensors. TO begin to write simple scripts in an international recognised coding language 	<ul style="list-style-type: none"> Continue to explore different ways in which computer software can be planned. Continue to develop an understanding of how technology works, with a focus on developing computational thinking Use a range of visual based programming software (e.g Scratch and Kodu) to plan and design basic software (for example a simple game), controlling the movement and responses of different elements on screen.) Use a range of visual programming software to plan and design more complex software (for example a multi-level game) Control an on-screen icon using text based controls, including responding to sensors and repeating written algorithms (e.g. Robomind) Begin to explore text based programming languages and create basic scripts (for example writing a python script to identify if a number is odd or even) 	
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Modelling and Simulations

<ul style="list-style-type: none"> To understand that ICT allows for complex situations to be modelled, or those which it would be impractical to try out in real life investigate the effect of changing variables in these simulations. Know that simulations are often guided by hidden rules To use software to model 3D objects, working to a scale. 	<ul style="list-style-type: none"> Use software to create models of 3D objects, landscapes or items, including creating to scale Use a range of more complex simulations, exploring the link to 'real life' and the impact of changing variables. Link the work exploring simulations to creating their own basic simulations in excel (see Using Data strand). 	<p>Use Trimble Sketckup for the 3D modelling task.</p>
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