

YEAR 5

CURRICULUM OVERVIEW

	Autumn		Spring		Summer	
	Digital Literacy		Computer Science		Information technology	
Years 1-6	Creativity	Communication and collaboration	Computer science	Coding	Networks and the internet	Productivity
	Creating and publishing	Communication and collaboration online	Modelling and simulations	Programming and control	Using technology	Digital media
					Using the internet	Using data

Topic/Unit	National Curriculum Objective	Learning Objectives	Resources for NC objectives and Skills	Skills	
AUTUMN Digital Literacy	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	<ul style="list-style-type: none"> - To understand the main risks associated with the internet. - To understand that they should not share certain types of personal information online. - To understand the school's acceptable use policy - To know how to report a worry or concern about inappropriate online behaviour 	Google - Ad words tool Google inside DB Primary 2Investigate Microsoft Powerpoint Microsoft Word	1 st half Creativity Creating and publishing <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 	2 nd half Communication and collaboration Communication and collaboration online <ul style="list-style-type: none"> • Continue to use e-mail to e-mail within woodlands-primary 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 • Begin to collaborate with other children outside (e-safety paramount) • Upload files to an online

				<p>features to use and justifying these choices to others.</p> <p>Continue to use ICT to create a finished product or set of linked products, developing consistency in style across linked products.</p>	<p>area e.g. video, photo story, sounds, images</p>
<p>SPRING</p> <p>Computer Science</p>	<p>- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p>	<p>To be able to describe how they found information and the choices that they made in its presentation</p> <p>To understand the sequence of input>process>output in computer systems</p> <p>To create and refine a series of commands (algorithm) and procedures to control or simulate physical systems combining inputs outputs and sensing devices</p> <p>To understand how to use selection in programming e.g. If I press A key say 'correct' else say 'incorrect'</p> <p>To understand and use variables</p> <p>To solve problems by decomposing them into smaller parts</p> <p>To understand what the internet is</p>	<p>Scratch (website)</p> <p>Beebots</p> <p>Beebot programme</p> <p>Lego robotics (?) - intelligent brick</p> <p>Enigma code - black chamber</p>	<p>1st half</p> <p>Computer Science</p> <p>Modelling and simulations</p> <ul style="list-style-type: none"> Use software to create models of 3D objects, landscapes or items. <p>Explore a range of increasingly complex simulations, exploring the effect of changing variables and recording the results.</p>	<p>2nd half</p> <p>Coding</p> <p>Programming and control</p> <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 assisted programming 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. Use visual programming

					based software to plan, design and create basic non-game software which use logic, algorithms and calculations. (e.g. use scratch to create an interactive maths quiz for a KS1 child)
SUMMER Information Technology	- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	- To recognize that information must be read carefully before it can be understood and interpreted for others -To understand and interpret information -To use a range of sources to check validity and recognize different viewpoints and the impact of incorrect data -To locate, save and import pictures, text, video and sound into another document appropriate to the task -To recognize that the internet may contain material that is irrelevant, biased, implausible and inappropriate	Audacity Movie maker Lenovos 2Investigate Microsoft Excel Purple Mash (?) Paint.net Data loggers	1 st half Networks and the internet Using technology 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.	2 nd half Productivity Digital media <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. • 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.

				<p>Using the internet</p> <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. • 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. 	<p>Continue to take photographs for a specific reason or project and/or find appropriate images on-line.</p> <p>Using data</p> <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. <p>If appropriate and cross curricular links present the opportunity, begin to explore spreadsheets entering basic formulae.</p>
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