

POTTEN END CHURCH OF ENGLAND PRIMARY SCHOOL
Long Term Planning: Computing

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Understanding the World which covers people and communities, the world and technology.					
Year 1	<p>Let's Create</p> <p>Children begin to explore digital texts, using varied devices and software to create digital content. They investigate differences between input and output and hardware and software. They explore the idea of a network related to computers at home and school, logging on to their area with support. They use unplugged computing approaches to explore the devices they use. They consider eSafe practice.</p>		<p>Visual Information</p> <p>Investigate information from different sources - Create graphs and charts - Collect, organise, store and interpret data - e-Safety: communicating online safely and respectfully</p>		<p>Discovering Programming</p> <p>Children name the main external parts of a computer and explore how they work together. They explore programmable devices relating their understanding of inputs and outputs to natural and digital systems. They use unplugged approaches and simple onscreen and physical devices to develop understanding of algorithms and programming,. They develop their own skills in open programming time.</p>	
Year 2	<p>Starting Research</p> <p>Children develop understanding of researching using non-digital and digital sources, including the World Wide Web. They understand the need to check their research results. They present their research. They use charts, graphs and mind maps. They begin to respect copyright and ownership and know who to talk to if they are worried.</p>		<p>Getting Creative</p> <p>Children build understanding of digital texts. They use varied devices and software with increased precision to create digital content. They revisit differences between input and output and hardware and software. They develop understanding of networks related to computers at home and school, logging on to their areas. They build understanding of algorithms using unplugged approaches. They develop eSafe practice.</p>		<p>Talking and sharing</p>	
Year 3	<p>Bringing Images to Life</p> <p>Children develop understanding of digital images. They transform and edit</p>		<p>Developing Communication</p> <p>Children use online communication tools such as email, blogs and</p>		<p>Keeping Informed</p> <p>Children understand the difference between data and information. They</p>	

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	<p>images, respecting copyright and ownership. They explore stop animation creating their own versions. They produce programmed animations, using sequence, repeat and selection.</p>	<p>discussion forums to support collaborative learning, safely and respectfully. They begin to investigate the technology used in digital communication networks. They use simple sound editing software to record and manipulate sound clips.</p>	<p>use sensors, dataloggers and other tools as part of their investigations. They use branching and flat-file databases to enter, organise and search data, deriving information which they present in different forms.</p>
Year 4	<p>Programming and Games Children explore simulations, investigating the structure and exploring how they might be programmed. They begin to note that abstraction can simplify them. They decompose tasks, creating and debug algorithms and understanding how algorithms support the programming process. They write, test, debug and refine programs to achieve specific objectives, using sequence, repetition and procedures. They explore selection in digital and natural systems.</p>	<p>Accuracy Counts Children discuss computer networks including the internet and the services it offers. They explore how search engines work and what influences results, evaluating search engines and using sources. They learn about the threat from computer viruses and develop understanding of intellectual property and relate this to their own content. They use spreadsheet software to create graphs and to explore number patterns.</p>	<p>Authoring Children investigate computing storage capacities and ways of saving data. They develop understanding of the school network and operating systems. They use varied resources to create digital content, creating and manipulating images and words. They select and use software to create non-linear content for specific audiences and objectives.</p>
Year 5	<p>Staying connected Blogs are used for collaborative projects in school, uploading different types of digital content, while checking copyright and crediting sources. They work as a class to build a wiki around a class topic, taking editorial responsibility for their work. They know the school's</p>	<p>Information Models Spreadsheet software is used to structure numeric information, making calculations using formulae and functions. They import data collected using dataloggers and analyse it using functions within the software. They carry out what-if modelling, using</p>	<p>Sound Works Create soundscapes, incorporating different content. They target their work to meet the needs of specific audience and they gather feedback from that audience</p>

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	eSafety rules and encourage other children to stay safe	this for prediction and present results using graphs.			
Year 6	Multimedia presentations and word processing (beginning to look at touch typing) The children will create PowerPoint presentations that include links to photos, videos and websites. E-safety	Creating a class blog – subject of the blog to be decided	Databases	Creating animations about deforestation linked to our geography work.	Programming and robotics

**The New Curriculum 2013
Computing: Key stage 1**

Pupils should be taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

**The New Curriculum 2013
Computing: Key stage 2**

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Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact