



Sutton in Craven C.E (V.C) Primary School



Computing

Progression Document

EYFS – Year 6

Flourish together, in the love of God, to live life in all its fullness.

Our Computing curriculum has been split into 3 foci - Individual skills for each are sorted and detailed below

Abstraction and Logic

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Text and Media		<p>Key Learning</p> <p>To read and change fonts on digital devices.</p> <p>Work with others and with support to contribute to a digital class resource which includes text, graphic and sound</p>	<p>Key Learning</p> <p>Generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound. Save and retrieve and edit their work.</p>	<p>Key Learning</p> <p>Record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks.</p> <p>Begin to show an awareness of the intended audience</p>	<p>Key Learning</p> <p>Use advanced tools in word processing / DTP software such as tabs, appropriate text formatting, line spacing etc appropriately to create quality presentations appropriate for a known audience.</p>	<p>Key Learning</p> <p>Multimedia work shows restrained use of effects that help to convey meaning rather than impress</p>	<p>Key Learning</p> <p>Multimedia work shows restrained use of effects that help to convey meaning rather than impress</p>
Programme or equipment to support teaching.		<p>Book creator – Ipad app Word – Desktop</p>	<p>Pic Collage – I pad app Book creator – Ipad app Word - Desktop</p>	<p>Word - Desktop</p>	<p>Movie maker - Desktop</p>	<p>Word Powerpoint - Desktop</p>	<p>Publisher Powerpoint - Desktop</p>
End of KS expectations		<p>Use technology purposely to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.</p>	<p>Use sequence, selection and repetition in programmes; which work with variables and various forms or input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes.</p> <p>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.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>				

Vocabulary	Font Size Bold Italic edit	Text Image Graphic Multimedia Edit save Open/retrieve insert	<u>KS1 vocabulary and:</u> Software Program Audio, video, text, image, graphics Hyperlink Copy Paste Formatting
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	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Images (photos, paint, animation)		Key Learning Use a range of simple tools in a paint package / image manipulation software to create / modify a picture.	Key Learning Use a range of tools in a paint package / image manipulation software to create / modify a picture to communicate an idea. Create a simple animation to tell a story.	Key Learning Manipulate digital images using a range of tools in appropriate software to convey a specific mood or idea.	Key Learning Make a short film / animation from images (still and / or moving) that they have sourced, captured or created.	Key Learning Use images that they have sourced / captured / manipulated as part of a bigger project (eg presentation or document).	Key Learning Use images that they have sourced / captured / manipulated as part of a bigger project (eg presentation or document).
Programme or equipment to support teaching.		I pads (Green covered ones stored in cabinet) can be used as digital camera	I pads (Green covered ones stored in cabinet) can be used as digital camera	Pivot – Desktop I pads (Green covered ones stored in cabinet) can be used as digital camera	Movie Maker – Desktop I pads (Green covered ones stored in cabinet) can be used as digital camera	I pads (Green covered ones stored in cabinet) can be used as digital camera	Do Ink – I pads I pads (Green covered ones stored in cabinet) can be used as digital camera

End of KS expectations		Use technology purposely to create, organise, store, manipulate and retrieve 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 programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Vocabulary		Text Image Graphic Multimedia Edit save Open/retrieve Insert Manipulate Modify Animation	<u>KS1 vocabulary and:</u> Software Capture Copy Paste

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Understanding Technologies (the internet)			Key Learning Use websites and demonstrate an awareness of how to manage their journey around them (e.g. using the back/forward button, hyperlinks)	Key Learning Show an awareness that not all the resources/tools they use are resident on the device they are using. ☑ Begin to show an understanding of URLs.	Key Learning Perform a search using different search engines and check the results against each other, explaining why they might be different. ☑ Show an awareness of the need for accuracy in spelling and	Key Learning Use collaborative tools and e-mail showing a sensitivity for this type of remote collaboration and communication	Key Learning

					syntax to search effectively.		
End of KS expectations		<p>Use technology purposely to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.</p> <p>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 technology.</p>		<p>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.</p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>			
Vocabulary		<p>Online</p> <p>Offline</p> <p>Desktop</p> <p>Search engine</p> <p>Hyperlinks</p> <p>Tab</p> <p>Refresh</p>		<p><u>KS1 vocabulary and:</u></p> <p>URL</p> <p>Collaboration</p> <p>Communication</p>			

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Sound and music (inc sound recorders)		<p>Key Learning</p> <p>Record speech.</p> <p>Choose music from a selection of CDs.</p> <p>Chose suitable sounds from a bank to express their ideas.</p> <p>Record short speech.</p>	<p>Key Learning</p> <p>Compose music from icons.</p> <p>Produce a simple presentation incorporating sounds the children have captured, or created.</p>	<p>Key Learning</p> <p>Create a simple podcast, selecting and importing already existing music and sound effects as well as recording their own.</p>	<p>Key Learning</p> <p>Create multiple track compositions that contain a variety of sounds.</p>	<p>Key Learning</p> <p>Create and share more sophisticated podcasts and consider the effect that their podcasts will have on the audience.</p>	<p>Key Learning</p> <p>Create and share more sophisticated podcasts and consider the effect that their podcasts will have on the audience.</p>

Programme or equipment to support teaching.				Use audacity to create compositions - Desktop	Use audacity to create compositions - Desktop	Use audacity to create compositions - Desktop	Use audacity to create compositions. - Desktop
End of KS expectations		Use technology purposely to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.	Use sequence, selection and repetition in programmes; which work with variables and various forms or input and output. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.				
Vocabulary		Audio sound Recording Compose Edit Capture	<u>KS1 vocabulary and:</u> Podcast Import Export Effects Share Pitch Tone				

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Understanding Technologies (individual technologies)		Key Learning Show an awareness of the range of devices and tools they encounter in everyday life. Be able to use basic equipment eg, turning computers, bee bots etc on and off.	Key Learning ☒ Show an awareness of a range of inputs to a computer (IWB, mouse touch screen, microphone, keyboard, etc)	Key Learning Begin to show discernment in their use of computing devices and tools for a particular purpose and explain why their choice was made.	Key Learning Make choices about the devices and tools they use for specific purposes and explain them in relation to the context. Begin to show an awareness of specific tools used in working life.	Key Learning Evaluate the tools available to them including any that are unfamiliar or new and use them to solve problems. Demonstrate an awareness of the appropriateness of outcomes depending on choices regarding tools and devices.	

End of KS expectations		Use technology purposely 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 technology.	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 programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Vocabulary		Technology Internet Devices On and off Input Output Voice activated Touch activated Keyboard Mouse Monitor Internet	<u>KS1 vocabulary and:</u> Network Internet Search engine Ranking Social media

Algorithms

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Control - Algorithms		Key Learning Begin to understand and control devices. Control simple everyday devices to make them produce different outcomes.	Key Learning Control a device, on and off screen, making predictions about the effect their programming will have.	Key Learning Children are able to type a short sequence of instructions and to plan ahead when programming	Key Learning Use control software to control devices (using output commands) or to simulate this on screen. Predict, test and refine	Key Learning	

			☑ Children can plan ahead.	devices on and off screen.	their programming.	Independently create sequences of commands to control devices in response to sensing (i.e. use inputs as well as outputs). Design, build, test, evaluate and modify the system; ensuring that it is fit for purpose.	
Programme or equipment to support teaching.		Bee Bots physical and app. Scratch Jr Desktop	Pro Bots Bee-bot app	Pro Bots Bee-bot app Scratch online	Scratch Online	Scratch Online	
End of KS expectations		Understand what algorithms are, how they are implemented as programmes on digital devices and that programmes execute by following the precise and ambiguous instructions. Create and de bug simple programmes		Design, write and de bug programmes that accomplish specific goals, including controlling or simulating physical systems, solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programmes; which work with variables and various forms or input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes.			
Vocabulary		Directional language Control Instructions Algorithms Programme Input Execute De bug		<u>KS1 vocabulary and:</u> Sequence Commands Simulation Decomposing Logical reasoning			

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Modelling and simulation (spreadsheets, adventure games and simulations)				<p>Key Learning</p> <p>Use models and simulations to find things out and solve problems. Recognise that simulations are useful in widening experience beyond the classroom.</p> <p>Make simple use of a spreadsheet to store data and produce graphs.</p>	<p>Key Learning</p> <p>Set up and use a spreadsheet model to explore patterns and relationships. Make predictions.</p> <p>Know how to enter simple formulae to assist this process.</p>	<p>Key Learning</p> <p>Set up and use their own spreadsheet, which contains formulae to investigate mathematical models. Ask "what if ..." questions and change variable in their model.</p> <p>Understand the need for accuracy when creating formulae and check regularly for mistakes, by questioning results.</p>	<p>Key Learning</p> <p>Relate their use of spreadsheets to model situations to the wider world.</p>
Programme or equipment to support teaching.				Excel - Desktop	Excel - Desktop	Excel - Desktop	Excel - Desktop
End of KS expectations				<p>Design, write and de bug programmes that accomplish specific goals, including controlling or simulating physical systems, solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programmes; which work with variables and various forms or input and output.</p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programmes.</p>			

Vocabulary			Models Simulation Data Visual representation Formulae Variable Logical reasoning Sequence De bug Programme Algorithms
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Data Representation

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Data Handling		<p>Key Learning</p> <p>As a class or individually with support, children use a simple pictogram or painting program to develop simple graphical awareness / one to one correspondence.</p>	<p>Key Learning</p> <p>Use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions.</p> <p>Enter information into a simple branching database, database or word processor and use it to answer questions.</p> <p>They save, retrieve and edit their work</p>	<p>Key Learning</p> <p>Children use a simple database (the structure of which has been set up for them) to enter and save and save information on a given subject.</p> <p>They follow straight forward lines of enquiry to search their data for their own purposes.</p> <p>They talk about their experiences of using ICT to process data compared with other methods.</p>	<p>Key Learning</p> <p>Children work as a class or group to create a data collection sheet and use it to setup a straight forward database to answer questions.</p> <p>Enter information and interrogate it (by searching, sorting, graphing etc).</p> <p>Begin to reflect on how useful the collected data and their interrogation was and whether or</p>	<p>Key Learning</p> <p>Independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings.</p> <p>The need for accuracy is demonstrated and strategies for spotting implausible data are evident.</p> <p>Children should be able to talk about issues relating to data protection and the</p>	

					not their questions were answered.	need for data security in the world at large (eg health, police databases).	
Programme or equipment to support teaching.		2 simple - Desktop	2 simple – Desktop	2 simple – Desktop	2 simple – Desktop Excel	Excel	
End of KS expectations		Use technology purposely to create, organise, store, manipulate and retrieve digital content. Recognise common uses of information technology beyond school.		Use sequence, selection and repetition in programmes; which work with variables and various forms or input and output. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programmes systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.			
Vocabulary		Input Output Programme Software Create Manipulate Digital content		<u>KS1 vocabulary and:</u> Digital representation Database Excell Spreadsheet Accuracy Data protection			