



Broadmayne First School Computing Progression in Skills

Computer Science				
EYFS	Year 1	Year 2	Year 3	Year 4
Completes a simple programme or app on a computer or tablet.	Use the word algorithm correctly, explaining that it is a list of clear instructions.	Explain what the word algorithm means using the words 'unambiguous' and 'precise' correctly in their definition.	Can read simple linear algorithms in a familiar programming language (e.g. Scratch)	Read increasing complex programs in a familiar programming language and can suggest plausible meanings for new blocks of code.
	Can follow a simple algorithm (like a recipe, or rules for a game).	Create their own simple (linear) algorithms	Are able to predict what the outcome of a program will be, run the program and check their results.	Can produce diagrams to show how the code could look before creating blocks of code on screen.
	Can put a sequence in the correct order.	Explain what the endpoint of an algorithm will be (e.g. predict where a BeeBot will travel to by reading a program of arrows)	Plan and design a program for a specific task	Know that programs can work with different types of data (text, numbers, sound).
	Know that if one part of the algorithm changes then the end result will be different.	Identify mistakes/errors in algorithms and make suggestions about how to make improvements (debug).	Find and correct errors i.e. debugging in an algorithm written in a familiar programming language.	Are able to use a range of input and output devices (sensors, motors etc.)
	Can name devices in school and at home that use an algorithm to work (a washing machine, alexa, BeeBot).		Show the use of sequence and repetition in programs.	
	Can construct their own algorithm (pictures, symbols, emergent writing or verbally) to complete an action (draw a face, move a BeeBot, make a sandwich).			



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Digital Literacy and Information Technology				
EYFS	Year 1	Year 2	Year 3	Year 4
Knows how to operate simple equipment, e.g. turns on CD player and uses remote control	Can open a program and create work for a given task (e.g. open and input text and images).	Can select or name software/app that would be appropriate for a simple given task.	Refine projects that include text, sound and graphics that produce a digital artefact with a given purpose.	Capture good quality still and moving images considering the purpose and the audience
Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.	Name different types of computer produced work (e.g. words, pictures, music, films).	Use a wider range of programs to accomplish more complex tasks (e.g. produce graphs, access age appropriate databases).	Collect images from devices or the internet and use simple editing tools.	Plan, produce and edit a media project (presentation, animation, film) taking into account the audience and the copyright of resources.
Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.	Talk about their work and suggest ways to improve it.	Can open a saved piece of work, edit the project and resave with increasing accuracy.	Collect information from a range of sources and use this to find answers to questions.	Can explain the difference between data and information.
Knows that information can be retrieved from computers	Are beginning to save their work in the correct folders as directed by staff.	Can find relevant content for a topic from the world wide web using a web browser as directed by the teacher.	Discuss how to improve their work and know that by using technology any editing can be made more quickly.	Can organise data in a table to make it useful.
Uses ICT hardware to interact with age appropriate computer software.	Share their use of technology outside of school, naming common devices and their functions (computer/laptop, tablet devices, smart home devices).	Login without support	Use the internet to carry out simple web searches to collect digital content.	Use a spreadsheet to produce simple graphs.
Recognises that a range of technology is used in places such as homes and schools.	Login and off the school network with increasing speed and accuracy using appropriate scaffolding			



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E Safety				
EYFS	Year 1	Year 2	Year 3	Year 4
To know how to tell an adult if they see something upsetting on screen.	To create rules for using technology responsibly	To explain how to use information technology safely and can explain the importance of keeping passwords secret and protecting other personal information.	To agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords;	To explain how and when to use a range of online services responsibly, identifying possible risks and how they can be reduced.
To turn off the screen if they see something upsetting and tell an adult.	To name at least one action to follow if they have concerns about their online safety.	identify what is appropriate and inappropriate behaviour on the internet;	To know a range of ways to report unacceptable content they might encounter online.	To reflect on their own digital footprint and behaviour online
To know the expectations for behaviour on and off-line	To know how to behave kindly and safely on and off-line	To demonstrate how to safely open and close applications and log on and log off from websites;	To know how to be a critical consumer while online	To demonstrate understanding of age-appropriate websites and adverts;
			To be able to discuss what is appropriate contact when online	
			To show an awareness of copyright and understand that digital work belongs to the author.	