

# Year 2 Computing

Multi-media	Programming	Data	Digital Literacy	Information Technology	Knowledge	Skills
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	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Unit/focus	How to take good photographs Keeping personal information safe	Using tallies, pictograms and Block graphs to represent data digitally	Use of sequencing in algorithms to create a program with a floor robot	Using digital software to create music.	Use this term to ensure that children can operate a laptop/Chrome book.	Consolidation of Y1 work and creating a quiz using ScratchJr
Planning resources	Digital photography	Pictograms	Robot Algorithms	Making music	Information Technology around us	An Introduction to quizzes
	Jessie and Friends Episode 3 (2 sessions)		Smartie the penguin Book 2	Detective Digiduck Digiduck activity pack (also used in Y1)	Digital 5-a-day (lesson 6 of above MTP)	
Sending colour – pixel pictures _ Problem solving:Colourful kits (2 lessons) and Toca Builders (ipad app)						
Physical resources	i-pads/tablets or cameras Pixlr/photo editing app Print of Jessie and Friends books and posters	i-Pad/tablet Chrome book/laptop <a href="#">i2e pictogram</a>	Beebots/Bluebots Floor mats Smartie the Penguin book print out (if wanted)	Musiclab – songmaker Laptop/chrome book i-Pad (harder to save)  Headphones/microphone	Different examples of IT Laptop/chrome book Google slides or PowerPoint	i-Pad/ Chrome book Scratch Jr app Possible Scratch jr coding cards as extension

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<b>Key learning objectives</b>	To know what devices can be used to take photographs	Recognise charts and pictograms and why we use them.	To describe a series of instructions as a sequence	I can use a computer to experiment with pitch and duration	Recognise what a computer is (input > process > output) and that this is a part of information technology.	Explain that computers have no intelligence and we have to program them to do things.
	I can explain why a photo looks better in portrait or landscape format	Explain information shown in a simple chart or pictogram	To know an algorithm is used to program a sequence on a floor robot. Changing the order of the algorithm can change the outcome	Recognise that we can use technology to record and playback audio.	Recognise that a range of digital devices contain computers, e.g. phone, games console, smart speaker.	Identify and correct errors in a given algorithm or program, and recognise the term debugging.
	I understand that software can be used to make changes to images and some images are not real.	To know that objects have different attributes and to select different objects by attribute and make comparisons	I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.	I can explain why work I create using technology belongs to me.	Explain what the basic parts of a computer are used for.	Explain what an algorithm is, and that when inputted on a computer it is called a program.

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	I can identify what personal information is and the importance of not sharing this.	Collect and present simple data using images, e.g. number of animals.	Recognise that the instructions in an algorithm need to be clear and unambiguous.	I understand that work created by others does not belong to me even if I save a copy.	I can explain simple guidance for using information technology in different environments and settings	Plan out a program by creating an algorithm, and evaluate its success.
	I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country).	Modify simple charts/pictograms, e.g. add title, item or labels.	I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.	I can explain what <b>voice activated searching</b> is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).	Identify and use input devices, e.g. mouse, keyboard; and output devices, e.g. speakers, screen	Predict the outcome of an algorithm or program with multiple steps.
	I can explain how other people may look and act differently online and offline.	Collect data on a topic (eye colour, pets etc.) and present in a pictogram or chart.	I know that some information I find online may not be real or true.	I know how to get help from a <b>trusted adult</b> if we see content that makes us feel sad, uncomfortable worried or frightened.	Save and open files to/from a given folder.	I can decide which blocks to use to meet the design

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	I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.	I can answer 'more than'/'less than' and 'most/least' questions about an attribute	I know how to get help from a <b>trusted adult</b> if we see content that makes us feel sad, uncomfortable worried or frightened.	I can use a computer to create a musical pattern using three notes	Resize an image in a document.	I can tell the actions of a sprite in an algorithm
	I can take photos in both landscape and portrait format	I can tally objects using a common attribute	- I can create different algorithms for a range of sequences (using the same commands)	To create music for a purpose	Highlight text and use arrow keys.	
	I can evaluate a photograph and improve by retaking it.		I can show the difference in outcomes between two sequences that consist of the same commands	I can save my work and re-open it	Log on to the school computer / unlock the school tablet.	
	I can experiment with light effects in photos		To use logical reasoning to predict the outcome of a program (series of commands)	I can save my work under a suitable title / name so that others know it belongs to me (e.g. filename, name on content).		

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	I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.		I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.	I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.		
	I can use photo editing software to make changes to my image.		I can create an algorithm to meet my goal and debug it			
	I can recognise different feelings I might encounter online and how my body might tell me something 'doesn't feel right'.					
	I can use focus to make my images clear					
<b>Ongoing skills</b>	How to use a mouse Start to use a track pad Become more confident in finding the letters on the keyboard Being able to login to school devices and follow navigation instructions to open applications I can use simple keywords in search engines.					

