

COMPUTING PROGRESSION GRID

	Computing systems and networks	Creating Media	Programming	Data and Information
<i>NC</i>	• <i>Recognise common uses of information technology beyond school</i> • <i>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</i>	• <i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</i>	• <i>Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions</i> • <i>Create and debug simple programs</i> • <i>Use logical reasoning to predict the behaviour of simple programs</i>	• <i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</i>
Year 1	Recognise technology in school and use it responsibly.	Choose appropriate tools in a program to create art and make comparisons with working non-digitally. Use a computer to create and format text before comparing to writing non-digitally.	Write short algorithms and programs for floor robots and predict program outcomes. Design and program the movement of a character on screen to tell a story.	Explore object labels, then use them to sort and group objects by properties.
Year 2	Identify IT and how its responsible use improves our world in school and beyond.	Capture and change digital photographs for different purposes. Use a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Create and debug programs and use logical reasoning to make predictions. Design algorithms and programs that use events to trigger sequences of codes to make an interactive quiz.	Collect data in tally charts and use attributes to organise and present data on a computer.

<i>NC</i>	• <i>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable</i>	• <i>Select, use and combine a variety of software (including internet services) on a range of digital</i>	• <i>Design, write and debug programs that accomplish specific goals, including controlling or simulating</i>	• <i>Select, use and combine a variety of software (including internet services) on a range of digital</i>
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	<i>behaviour; identify a range of ways to report concerns about content and contact</i> • <i>Understand computer networks, including the internet; how they can provide multiple services, such as the WWW, and the opportunities they offer for communication and collaboration</i> • <i>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</i>	<i>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</i>	<i>physical systems; solve problems by decomposing them into smaller parts</i> • <i>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output</i> • <i>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</i>	<i>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</i>
Year 3	Identify that digital devices have inputs, processes and outputs, and how devices can be connected to make networks.	Capture and edit digital still images to produce a stop-frame animation that tells a story. Create documents and modify text, images and page layouts for a specific purpose.	Create sequences in a block-based programming language to make music. Write algorithms and programs that use a range of events to trigger sequences of actions.	Build and use branching databases to group objects using yes/no questions.
Year 4	Recognise that the internet is a network of networks, including the WWW, and know why we should evaluate online content.	Capture and edit audio to produce a podcast, ensuring that copyright is considered. Manipulate digital images and reflect on the impact of the changes and whether the required purpose is fulfilled.	Use a text-based programming language to explore count-controlled loops when drawing shapes. Use a block-based programming language to explore count-controlled and infinite loops when creating a game.	Recognise how and why data is collected over time, before using data loggers to carry out an investigation.
Year 5	Recognise IT systems in the world and how some can enable searching on the internet.	Plan, capture and edit video to produce a short film. Create images in a drawing program by using layers and groups of objects.	Explore conditions and selection using a programmable microcontroller. Explore selection in programming to design and code an interactive quiz.	Use a database to order data and create charts to answer questions.

Year 6	Explore how data is transferred by working collaboratively online.	Design and create webpages, giving consideration to copyright, aesthetics and navigation. Plan, develop and evaluate 3D computer models of physical objects.	Explore variables when designing and coding a game. Design and code a project that captures inputs from physical devices.	Answer questions by using spreadsheets to organise and calculate data.
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