

Computing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing Systems and Networks – Sharing information	Creating Media – Video Editing	Programming – Selection in physical computing	Data and Information – Flat File Databases	Creating Media – Vector Drawings	Programming B: Selection in quizzes
Year 5	How do computer systems link/work?		Using crumble kits to make patterns	Use flat file databases to sort information out into categories	Networks and technology in our lives	Selection in quizzes
	Searching the internet and how results are ranked.					
	Concepts: - Design & Development - Networks - Computer systems - Effective use of tools/software	Concepts: - Creating Media - Design & Development - Effective use of tools/software - Safety & Security	Concepts: - Computer Systems - Design & Development - Programming	Concepts: - Data and Information - Safety and Security - Effective use of tools/software	Concepts: - Creating Media - Design & Development - Effective use of tools/software - Data and information	Concepts: - Algorithms - Design & Development - Programming
National	design, write and debug programs that accomplish	use search technologies effectively, appreciate how	design, write and debug programs	use search technologies effectively, appreciate how	select, use and combine a variety of	design, write and debug programs

Curriculum Coverage	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 • 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 • 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	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	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 • 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	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	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	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 • 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
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Sticky Knowledge	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
SK1	- I know how to describe that a computer system features inputs, processes, and outputs - I know how to explain that computer systems communicate with other devices - I know how to explain that systems are built using a number of parts	- I know how to compare features in different videos - I know how to explain that video is a visual media format - I know how to identify features of videos	- I know how to create a simple circuit and connect it to a microcontroller - I know how to explain what an infinite loop does - I know how to program a microcontroller to make an LED switch on	- I know how to create multiple questions about the same field - I know how to explain how information can be recorded - I know how to order, sort, and group my data cards	- I know how to recognise that vector drawings are made using shapes - I know how to experiment with the shape and line tools - I know how to discuss how vector drawings are different from paper-based drawings	- I know how to identify conditions in a program - I know how to modify a condition in a program - I know how to recall how conditions are used in selection
SK2	- I know how to explain the benefits of a given computer system - I know how to identify tasks that are managed by computer systems - I know how to identify the human elements of a computer system	- I know how to experiment with different camera angles - I know how to identify and find features on a digital video recording device - I know how to make use of a microphone	- I know how to connect more than one output component to a microcontroller - I know how to design sequences that use count-controlled loops - I know how to use a count-controlled loop to control outputs	- I know how to choose which field to sort data by to answer a given question - I know how to explain what a 'field' and a 'record' is in a database - I know how to navigate a flat-file database to compare different views of information	- I know how to identify the shapes used to make a vector drawing - I know how to explain that each element added to a vector drawing is an object - I know how to move, resize, and rotate objects I have duplicated	- I know how to create a program with different outcomes using selection - I know how to identify the condition and outcomes in an 'if... then... else...' statement - I know how to use selection in an infinite loop to check a condition
SK3	- I know how to explain that data is transferred over networks in packets - I know how to explain that networked digital	- I know how to capture video using a range of filming techniques - I know how to review how effective my video is	- I know how to design a conditional loop - I know how to explain that a condition is	- I know how to combine grouping and sorting to answer more specific questions - I know how to explain how information can be grouped - I know how to group information to answer questions	- I know how to use the zoom tool to help me add detail to my drawings - I know how to explain how alignment grids	- I know how to design the flow of a program which contains 'if... then... else...' - I know how to explain that program

	devices have unique addresses - I know how to recognise that data is transferred using agreed methods	- I know how to suggest filming techniques for a given purpose	either true or - I know how to program a microcontroller to respond to an input		and resize handles can be used to improve consistency I know how to modify objects to create a new image	flow can branch according to a condition - I know how to show that a condition can direct program flow in one of two ways
SK4	- I know how to explain that the internet allows different media to be shared - I know how to recognise that connected digital devices can allow us to access shared files stored online - I know how to send information over the internet in different ways	- I know how to create and save video content - I know how to decide which filming techniques I will use - I know how to outline the scenes of my video	- I know how to explain that a condition being met can start an action - I know how to identify a condition and an action in my project - I know how to use selection (an 'if...then...' statement) to direct the flow of a program	- I know how to choose multiple criteria to answer a given question - I know how to choose which field and value are required to answer a given question - I know how to outline how 'AND' and 'OR' can be used to refine data selection	I know how to identify that each added object creates a new layer in the drawing I know how to change the order of layers in a vector drawing I know how to use layering to create an image	- I know how to identify the outcome of user input in an algorithm - I know how to outline a given task - I know how to use a design format to outline my project
SK5	- I know how to compare working online with working offline - I know how to make thoughtful suggestions on my group's work - I know how to suggest strategies to ensure successful group work	- I know how to explain how to improve a video by reshooting and editing - I know how to select the correct tools to make edits to my video - I know how to store, retrieve, and export my recording to a computer	- I know how to create a detailed drawing of my project - I know how to describe what my project will do - I know how to identify a real-world example of a condition starting an action	- I know how to explain the benefits of using a computer to create graphs - I know how to refine a chart by selecting a particular filter - I know how to select an appropriate chart to visually compare data	I know how to copy part of a drawing by duplicating several objects I know how to recognise when I need to group and ungroup objects I know how to reuse a group of objects to further develop my vector drawing	- I know how to implement my algorithm to create the first section of my program - I know how to share my program with others - I know how to test my program

SK6	- I know how to explain how the internet enables effective collaboration - I know how to identify different ways of working together online - I know how to recognise that working together on the internet can be public or private	- I know how to evaluate my video and share my opinions - I know how to make edits to my video and improve the final outcome - I know how to recognise that my choices when making a video will impact on the quality of the final outcome	- I know how to test and debug my project - I know how to use selection to produce an intended outcome - I know how to write an algorithm that describes what my model will do	- I know how to ask questions that will need more than one field to answer - I know how to present my findings to a group - I know how to refine a search in a real-world context	- I know how to create a vector drawing for a specific purpose - I know how to reflect on the skills I have used and why I have used them - I know how to compare vector drawings to freehand paint drawings	- I know how to extend my program further - I know how to identify the setup code I need in my program - I know how to identify ways the program could be improved
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