



CURRICULUM PROGRESSION GRID: COMPUTING
UPPER KEY STAGE 2

Computer Science/Coding	Information Technology	Online Safety
<p>NC Link</p> <ul style="list-style-type: none"> design, write and debug programs 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; 	<p>NC Link</p> <ul style="list-style-type: none"> 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 programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information; 	<p>NC Link</p> <ul style="list-style-type: none"> Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
<p>Theme links Autumn 1, Spring 1 & Summer 1</p>	<p>Theme links Autumn 2, Spring 2 & Summer 2</p>	<p>Theme links Ongoing throughout the year</p>
<p>Builds on KS1</p> <ul style="list-style-type: none"> understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions; create and debug simple programs; use logical reasoning to predict the behaviour of simple programs; 	<p>Builds on KS1</p> <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content; Recognise common uses of information technology beyond school 	<p>Builds on KS1</p> <ul style="list-style-type: none"> 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.

<p>Intent</p> <ul style="list-style-type: none"> • use external triggers and infinite loops to demonstrate control; • follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols; • use conditional statements and edit variables; • decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program; • keep testing a program and recognise when it needs to be debugged; <p>Extended Write: Instructions for how to do something A 'how to' guide to writing code</p>	<p>Intent</p> <p><u>Technology in Our Lives</u></p> <ul style="list-style-type: none"> • search for information using appropriate websites and advanced search functions within Google; • use strategies to check the reliability of information (cross-check with another source such as books); • talk about the way search results are selected and ranked; • check the reliability of a website, including the photos on site; • tell you about copyright and acknowledge the sources of information; <p><u>Multimedia, Text and Images</u></p> <ul style="list-style-type: none"> • use the skills already developed to create content using unfamiliar technology; • select, use and combine the appropriate technology tools to create effect; • review and improve their own work and support others to improve their work; • save, retrieve and evaluate their work, making amendments; • insert a picture/text/graph/hyperlink from the internet or personal file; <p><u>Multimedia, Sound and Motion</u></p> <ul style="list-style-type: none"> • collect audio from a variety of resources including own recordings and internet clips; • use a digital device to record sounds and present audio; • trim, arrange and edit audio levels to improve quality; • publish their animation and use a movie editing package to edit/refine and add titles; <p><u>Data Handling</u></p>	<p>Intent</p> <ul style="list-style-type: none"> - protect their password and other personal information; - be a good online citizen and friend; - judge what sort of privacy settings might be relevant to reducing different risks; - seek help from an adult when they see something that is unexpected or worrying; - discuss scenarios involving online risk; <p>Extended Write: Diary of someone who has experienced cyber-bullying</p>
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	<ul style="list-style-type: none"> • construct data on the most appropriate application; • know how to interpret data, including spotting inaccurate data and comparing data; • use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets; • add data to an existing database; <p>Extended Write: A 'guide' to the Internet Multimedia story with images/sounds combined with text</p>	
<p>Vocabulary: decompose, decomposing, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, flowchart, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, sequence, consequence, debug, program, object</p>	<p>Vocabulary: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.</p> <p>window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide</p> <p>audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, production, post-production, documentary, project, evaluation, screening, upload.</p> <p>Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p>	<p>Vocabulary: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.</p>