



What are the aims and intentions of this curriculum?

That children:

- 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
- 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Term	Topic	Key Learning (Knowledge & Skills)	Key Vocabulary
Autumn 1	Computing systems: Collaborative learning	<ul style="list-style-type: none">• Understand that software can be used collaboratively online to work as a team• Know what type of comments and suggestions on a collaborative document can be helpful.• Know that you can use images, text, transitions and animation in presentation slides.• Recognise what appropriate behaviour is when collaborating with others online.• Understand that software can be used collaboratively online to work as a team.• Use software to work collaboratively with others.• Use online software for documents, presentations, forms and spreadsheets	collaborate, comment, e-document, edit, email, icon, insert, link, presentation software, reply, review comments, spreadsheet, transition
Autumn 2	Programming: Further coding with Scratch	<ul style="list-style-type: none">• Understand that a variable is a value that can change (depending on conditions) and know that you can create them in Scratch.• Know what a conditional statement is in programming.	code, code block, conditional statement, decompose, direction, feature, icon,



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		<ul style="list-style-type: none"> • Understand that variables can help you to create a quiz on Scratch. • Solve unplugged problems by decomposing them into smaller parts • Use decomposition to understand the purpose of a script of code • Use decomposition to help solve problems • Identify patterns through unplugged activities • Use past experiences to help solve new problems • Create algorithms for a specific purpose • Incorporate variables to make code more efficient 	orientation, position, program, stage, tinker, variable
Spring 1	Creating media: Website design	<ul style="list-style-type: none"> • Know that a website is a collection of pages that are all connected. • Know that websites usually have a homepage and subpages as well as clickable links to new pages, called hyperlinks. • Know that websites should be informative and interactive. • Use software to work collaboratively with others. • Design and creating a webpage for a given purpose. • Build a web page and creating content for it. 	collaboration, content, create, design, edit, embed, feature, header, hyperlink, insert, online, plan, tab, website, WWW
Spring 2	Skills showcase: HTML	<ul style="list-style-type: none"> • Understand and identify examples of HTML tags. • Understand what changing the HTML and CSS does to alter the appearance of an object on the web • Understand that copyright means that those images are protected and to understand that we should do a "creative commons" image search if we wish to use images from the internet. • Know what "fake news" is and ways to spot websites that carry this type of misinformation. • Know what the "inspect" elements tool is and ways of using it to explore and alter text and images. • Remix existing code. • Build a web page and creating content for it. • Understand that information found by searching the internet is not all grounded in fact • Recognise that information on the Internet might not be true or correct and that some sources are more trustworthy than others. 	code, content, copyright, CSS, hacker, hex code, internet browser, permission, script, URL, web page



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Summer 1	Programming: Computational thinking	<ul style="list-style-type: none"> • Know that combining computational thinking skills can help you to solve a problem. • Understand that pattern recognition means identifying patterns to help them work out how the code works. • Understand that algorithms can be used for a number of purposes e.g. animation, games design etc. • Use decomposition to solve a problem by finding out what code was used. • Use decomposition to understand the purpose of a script of code. • Identify patterns through unplugged activities. • Use past experiences to help solve new problems. • Use abstraction to identify the important parts when completing both plugged and unplugged activities. • Create algorithms for a specific purpose • Use abstraction and pattern recognition to modify code. 	abstraction, algorithm, design, code, code blocks, decompose, problem
Summer 2	Investigating Weather (Data Handling)	<ul style="list-style-type: none"> • Know that computers can use different forms of input to sense the world around them so that they can record and respond to data ('sensor data'). • Know that a weather machine is an automated machine that respond to sensor data. • Understand that 'green screen technology' is a green background in front of which moving subjects are filmed so a separately filmed background can be added to the final image. • Understand that data is used to forecast weather. • Sort data in a spreadsheet to compare using the 'sort by...' option. • Record data in a spreadsheet independently. • Design a device which gathers and records sensor data. • Search the internet for data. • Using keywords to effectively search for information on the internet. 	algorithm, automated machine, calculate, climate, device, forecast, log data, predict, record, sensor, source, spreadsheet, temperature, weather
Continuous	Online Safety	<ul style="list-style-type: none"> • Understand some of the methods used to encourage people to buy things online. • Understand that technology can be designed to act like or impersonate living things. • Understand that technology can be a distraction and identify when someone might need to limit the amount of time spent using technology. 	search results, trustworthy, reliable, advertisements, sponsored, snippets, accuracy, ad, sponsored, influencer, fact, opinion, bot,



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		<ul style="list-style-type: none">• Understand what behaviours are appropriate in order to stay safe and be respectful online.• Recognise what is appropriate behaviour when collaborating with others• Recognise that information on the Internet might not be true or correct and that some are more trustworthy than others• Identify different forms of advertising on the Internet	Chatbot, screentime
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