

Computing Whole School Subject Overview



	Autumn 1	Autumn2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	<u>Computer Science</u> <u>Software – Robot STEM Mouse</u> Learn It: What is AI? To understand what AI means in simple terms.		<u>Computer Science</u> <u>Systems and Networks with Laptops</u> Question It: AI or not AI? To recognise the difference between AI and non-AI technologies.		<u>Computer Science</u> <u>Software – Kodable</u> <u>Revising all skills from the Autumn</u> Secure It: Staying safe around AI. To learn simple ways to stay safe when using AI devices.	
Year 2	<u>Computer Science</u> <u>Software – Code.org</u> <u>Progression to block coding in preparation for Year 3.</u> <u>Revising all skills from the Autumn</u> Learn It: AI is not human To understand that AI is a tool, not a person and it doesn't have feelings or intentions.		<u>Computer Science</u> <u>Pictograms and Data</u> Learn It: Fun with AI To explore simple AI tools and reflect on what we've learned about AI.		<u>Computer Science</u> <u>Software – Robot STEM Mouse</u> <u>Progressive STEM Based Challenges with Robot Algorithms</u> Question It: How does AI work? To explore how AI learns from data and patterns and understand that AI can make mistakes	

Year 3	<u>Computer Science</u> <u>Software – Scratch JR</u> I can write algorithms that use a set of sequences that create a game with conditions, rules and loops. Question It: AI's Brain: Data and Patterns To understand how AI uses data and patterns to learn and make decisions.		<u>Computer Science</u> <u>Stop Frame Animation</u> Question It: Meet AI -To learn how AI uses data to make decisions and understand its uses in daily life.		<u>Software – Scratch JR</u> I can build an 'avoid the object' game by writing a number of different algorithms that will use sequences, conditions, looping and variation. Secure It: AI and Privacy To learn why protecting personal data is important and how to interact safely with AI tools.	
Year 4	<u>Understanding the Computer</u> <u>Units Of Study</u> What is a computer? What is a computer network? What is world wide web? What is a search engine? Question It: Can AI make mistakes? To understand that AI can make mistakes and why it's important to check its answers.		<u>Computer Science</u> What is Computer Science? <u>Software – Scratch JR</u> I can build a game using logical thinking to ensure the simplest and most efficient algorithms are used. Question It: AI Ethics: Fair or unfair? To understand that AI can be biased and why fairness is important in AI decisions.		<u>Computer Science</u> <u>Software – Codey Rocky</u> Robot Teaching Unit Think It: Designing my own AI. To design a helpful and fair AI tool that solves a simple problem.	

Year 5	<u>Computer Science</u> <u>Software – Scratch Full</u> I can build an algorithm that incorporates a sequence, conditional statement and a loop to achieve an outcome. Question It: Exploring the AI world To understand the role of AI in everyday life including its benefits and challenges.		<u>Computer Science</u> <u>Software – MBot Robot Unit</u> Question It: Data Detectives To explore how AI collects and uses data, including the impact of poor-quality data.		<u>Computer Science</u> <u>Understanding the Computer Systems and Searching</u> 1) Systems 2) Computer Systems and Us 3) Searching the web 4) Selection Search Results 5) How search results are ranked 6) How are search results influenced. Secure It: Privacy in an AI world. To learn how AI collects personal data and why privacy is important.	
Year 6	<u>Computer Science</u> <u>Data and Information Introduction to Spreadsheets</u> Build It: Building a better AI. To design an AI tool with a focus on fairness, safety, and responsibility.		<u>Computer Science</u> <u>Software – Scratch Full</u> Progression of tasks from Year 5. Mind It: AI and Bias. To understand how AI can be biased and its impact on fairness.		<u>Computer Science</u> <u>Software – MBot</u> Question It: AI Ethics and responsibility. To discuss ethical considerations in AI and reflect on how to use AI responsibly.	