Computing Long Term Plan Chetwynde School 2026 - 2027

Substantive Knowledge:	Computing Systems and networks	Programming	Data Handling	Online safety	Creative media
Disciplinary Knowledge:	Investigating, exploring, comparing, selecting, applying, analysing, evaluating and problem-solving.	Sequencing, coding, predicting, testing, debugging, designing, problem-solving, evaluating, improving.	Collecting, recording, organising, sorting, presenting, comparing, analysing, interpreting, evaluating.	Recognising, protecting, identifying, questioning, reporting, communicating, evaluating, respecting, responding.	Designing, creating, editing, combining, formatting, experimenting, presenting, evaluating, improving.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Computing Systems and networks	Programming	Computing Systems and networks	Data Handling		
EYFS	<u>Computing systems and networks 1: Using a computer</u> Investigating the main parts of a computer and learning how the keyboard and mouse are used to control it. Pupils also practise how to log in, log out and navigate simple digital tasks independently.	<u>Programming 1: All about instructions</u> Developing an understanding of how to receive and give instructions while learning why instructions need to be clear and precise.	<u>Computing systems and networks 2: Exploring hardware</u> Investigating different computer hardware parts and learning how to operate a camera.	<u>Data handling: Introduction to data</u> Learning how to sort and categorise data and an introduction to branching databases and pictograms.		
Year 1	Data Handling		Computing Systems and networks		Programming	
			<u>Computing systems and networks: Improving mouse skills</u> Developing an understanding of how to log in and navigate around a computer while building mouse control skills, including clicking, dragging	.	<u>Programming 1: Algorithms unplugged</u> Investigating algorithms, decomposition and debugging through unplugged activities linked to familiar contexts such as dressing up and making a sandwich.	

			and dropping. Pupils apply these skills to create digital artwork inspired by Kandinsky and produce their own self-portraits.		Pupils apply their understanding by creating and correcting precise instructions to achieve specific outcomes.	
Year 2	Computing Systems and networks		Programming	Programming	Online Safety	
	Computing systems and networks 1: What is a computer? Exploring what a computer is by identifying different inputs and outputs and understanding how computers process information. Pupils investigate how computers are used in the wider world before designing their own computerised invention.		Programming 1: Algorithms and debugging Developing an understanding of what algorithms are, how to program them and how they can be developed to be more efficient through a range of unplugged and plugged-in activities.	Programming 2: MakeCode Exploring how to use 'MakeCode' by investigating what different programming blocks do and how they control outcomes. Pupils apply their understanding by planning, building and testing their own program	Online safety: Year 2 Investigating online safety, including what happens to information posted online, how to keep personal information private and how permission is given or denied in online spaces. Pupils apply their understanding by identifying safe online behaviours and making responsible choices about sharing information online.	
Year 3	Online safety		Creative media	Programming	Data Handling	
	Online safety: Year 3 Further exploring online safety, including the difference between beliefs, opinions and facts, privacy settings, protecting personal information and responding to upsetting online content. Pupils identify safe online behaviours and learn how to make responsible choices when using social media and digital platforms.		Video trailers – Option 1: Using devices other than iPads Developing digital video skills through creating trailers that use special effects, transitions and editing techniques. Pupils apply their understanding by planning, producing and refining video content for a book trailer.	Programming: Scratch Investigating programming through Scratch by creating animations and learning key coding concepts. Pupils apply their understanding by testing, debugging and evaluating their work to improve and refine digital projects.	Data handling To understand the terminology around databases.	
Year 4	Online safety		Data Handling		Creative media	Computing Systems
	Online safety: Year 4 Developing online research skills by learning how to search for information and		Data handling: Investigating weather Investigating how weather data is gathered, recorded		Google: Creating media: Website design Exploring the features of Google Sites and learning	Google: Computing systems and networks: Collaborative learning

	judge its probable accuracy. Pupils identify adverts and pop-ups, investigate how technology can be distracting and make informed choices about using digital content safely and effectively.		and used to create forecasts through researching and using spreadsheets to organise information. Pupils design a weather station, collect and present data, and create their own weather forecast using tablets or digital cameras.		how websites are planned, created and organised for different audiences and purposes. Pupils collaborate to design web pages, create their own websites and evaluate how effectively their content communicates information.	Developing collaborative working skills through using online software to create and share digital content. Pupils apply their understanding by contributing to shared documents, creating presentations and forms and using shared spreadsheets to organise and explore data.
Year 5	Programming	Online safety	Creative media	Computing Systems and networks	Data Handling	
	<u>Programming 1: Scratch: Music</u> Developing programming and music skills through creating digital sounds, beats and melodies using coding techniques. Pupils apply their understanding by using nested loops to create rhythms and compose a soundtrack with layered musical patterns.	<u>Online safety: Year 5</u> Investigating online communication, personal privacy and the impact technology can have on health and wellbeing. Pupils explore how apps access information, develop strategies to stay safe online and learn how to manage their online reputation and address bullying.	<u>Stop-motion animation – Option 1: Using Stop Motion Studio</u> Developing an understanding of animation by exploring stop-motion techniques and how moving images are created. Pupils plan, create and edit their own stop-motion project, applying digital skills to produce a finished animation.	<u>Computing systems and networks: Search engines</u> Investigating how search engines work and developing effective searching skills to find relevant and accurate information online. Pupils evaluate the reliability of online content, explore how web crawlers organise information and apply their understanding by creating an informative poster.	<u>Data handling: Mars Rover 1</u> Exploring how the Mars Rover collects, stores and transmits data back to Earth using binary code and computer systems. Pupils investigate computer architecture, learn how binary represents different types of data and apply their understanding to read and interpret binary numbers and text.	
Year 6	Computing Systems and networks	Online safety	Computing Systems and networks		Data Handling	
	<u>Computing systems and networks: Bletchley Park and the history of computers</u> Investigating secret codes, secure passwords and the history of computers to understand how technology and cybersecurity have developed over time. Pupils research past computers before designing a computer of the future and creating an audio advert to present their ideas.	<u>Online safety: Year 6</u> Examining online safety and wellbeing, including how online interactions, sharing content and digital behaviour can affect emotions and reputation. Pupils learn how to manage passwords, report online bullying and make responsible	<u>Computing systems and networks: Exploring AI</u> Exploring what AI is and how it generates text, images and code. Pupils learn about creating and refining prompts to improve AI responses while also considering the ethical implications of AI and its potential to replace human roles.		<u>Data handling 1: Big Data 1</u> Exploring how data is transmitted and used in everyday technology through barcodes, QR codes, infrared communication and RFID systems. Pupils investigate real-world applications of digital data before collecting, analysing and evaluating	

		decisions about what they click and share.			transport and tracking information.	