

Computing Year 7	Curriculum intent: The Year 7 Computing curriculum aims to transform students from consumers of technology into informed, capable and creative digital creators. Through a balance of computer science, information technology and digital literacy, students develop an understanding of how computer systems work, how data is represented, how programs are created and how technology can be used safely, responsibly and effectively. Practical, project-based learning provides opportunities for students to apply computational thinking, problem solving and creativity to real-world challenges. Knowledge is carefully sequenced and regularly revisited through retrieval practice and interleaving to support long-term retention and mastery. Students leave Year 7 with the confidence, technical vocabulary and foundational understanding required for future study and participation in an increasingly digital society.																			
Topic	Topic 1: Online Safety & Digital Literacy					Topic 2: Computer Systems			Topic 3: Intro to Programming (Scratch)		Topic 4: Data Representation			Topic 5: Digital Design			Topic 6: Websites (Drag & Drop)			
Interleaving	Students revisit online safety throughout the year when creating digital content, programming and websites. Key ideas including digital footprint, privacy and misinformation are reinforced through retrieval and real-world scenarios.					Students revisit hardware and software knowledge when exploring programming, data representation and websites. Connections are made between computer systems and the digital technologies students use in everyday life.			Students apply problem-solving and computational thinking skills developed earlier in the year. Sequencing, logic and evaluation are reinforced through programming and later digital projects.		Students revisit how computers represent and store information, building on hardware and storage knowledge. Connections are made between binary, digital media and computer systems.			Students apply their understanding of audience, purpose and evaluation developed during earlier activities. Design principles are revisited during website development.			Students draw together knowledge from digital design, online safety and computer systems to create purposeful websites. Evaluation, usability and audience awareness are reinforced.			
Knowledge	Students learn how to use technology safely, responsibly and effectively. They explore digital footprints, online identity, personal information, secure passwords and privacy settings. Students investigate content, contact and conduct risks, misinformation and the trustworthiness of online information, alongside how to report concerns and access support.					Students learn how hardware and software work together within a computer system. They explore the purpose of key components including the CPU, RAM, storage, input and output devices. Students learn about operating systems and application software and explore the Input–Process–Output model and how devices communicate.			Students learn how algorithms provide a sequence of instructions for solving problems and how these can be implemented in code. Using Scratch, they explore sequencing, selection, repetition and variables, alongside testing and debugging techniques used to identify and correct errors.		Students learn how computers represent information digitally using binary. They explore how numbers and characters are represented and investigate how images and sound can be stored digitally. Students also explore simple encoding and ciphers to understand how information can be represented in different ways.			Students learn the principles of effective digital design and how products are created for a specific audience and purpose. They explore layout, colour, typography and imagery and consider how these choices influence usability, accessibility and the effectiveness of a digital product.			Students learn how websites are structured and designed for a particular audience and purpose. Using drag-and-drop web authoring tools, they explore page structure, navigation, accessibility and usability and learn how testing and evaluation can improve a finished website.			
Understanding	Students explain how online actions can have long-term consequences and how personal information can be protected. They recognise common online risks and appropriate responses to inappropriate content, contact and conduct. Students evaluate the reliability of online information and explain when and where to seek support.					Students identify common hardware and software and explain their purpose within a computer system. They explain how hardware and software work together, apply the Input–Process–Output model to familiar devices and describe how information can move between connected systems.			Students design simple algorithms and explain how sequencing, selection and repetition control the behaviour of a program. They use variables appropriately and demonstrate an understanding of testing and debugging by identifying and correcting errors in their programs.		Students explain why computers use binary and how different types of information can be represented digitally. They convert simple values between binary and decimal and explain how text, images and sound can be stored as digital data.			Students explain how audience and purpose influence design decisions. They apply appropriate design principles to their own work and evaluate digital products, identifying how layout, accessibility and usability could be improved.			Students explain how website structure, navigation and design choices affect the user experience. They apply these principles when creating their own website and use testing and feedback to identify and make appropriate improvements.			
Skills	Computational Thinking	Problem Solving	Analysis, Evaluation and Implementation	Technical Vocabulary	Digital Literacy & Communication	Computational Thinking	Problem Solving	Analysis, Evaluation and Implementation	Technical Vocabulary	Digital Literacy & Communication	Computational Thinking	Problem Solving	Analysis, Evaluation and Implementation	Technical Vocabulary	Digital Literacy & Communication	Computational Thinking	Problem Solving	Analysis, Evaluation and Implementation	Technical Vocabulary	Digital Literacy & Communication
Assessment	Students complete an Online Safety Investigation, analysing realistic online scenarios and recommending appropriate responses. Knowledge is assessed through retrieval questions and a digital safety task.					Students create a Computer Systems Explainer, demonstrating their understanding of hardware, software, operating systems and the Input–Process–Output model and explaining how components work together.			Students create an Interactive Scratch Project using sequencing, selection, repetition and variables. They demonstrate problem-solving through testing, debugging and improving their program.		Students complete a Digital Decoder Case File, investigating how numbers, text and sound are represented digitally and applying conversion and representation skills.			Students create a Digital Media Product for a specified audience and purpose. They justify key design decisions and evaluate the effectiveness of their finished product.			Students design and build a multi-page website using drag-and-drop software. Assessment focuses on structure, navigation, accessibility, audience awareness and evaluation of the finished product.			