

STUDIO WEST SCHOOL LEARNING JOURNEY – Computing



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Digital Literacy Exploring E-safety and the use of technology to support learning.	Introductions to Computers Discover the fundamentals of computing. Understanding the use of hardware and software.	Scratch Introduce the code block programming. Plan and create a variety of short programs in scratch.	The History of Computing Research the development of computing technology and who the key individuals who changed computing are.	Animations Learn skills in animation software to produce mini animations to meet the needs of a client.	Spreadsheets Build spreadsheets to show a variety of functions and formulas.
Year 8	Networks and Topologies Investigate how computers are connected and share files. Develop mini topologies to show the structures of the strengths and weaknesses.	Python Introduction to python. Solve a variety of high-level written problems and develop basic programs.	Digital Graphics Explore the use of digital marketing and photoshop skills. Develop visual identity for a brand.	Binary Logic Understand the use of binary and demonstrate how to covert to binary. Know the functions of logic gates and solve the outcomes.	Computational Thinking Develop algorithms to support the development of creating programs.	Computing and Society Investigate ethical, legal, cultural and social impacts.
Year 9	Comic Books Develop skills in photoshop and comic life to plan, design and create a comic book to meet the needs of a client.	Computer Fundamentals Explore system architecture and understand the variety of characteristics.	Python More Continue to build skills in python. Use python turtle to demonstrate a variety of skills.	HTML Java Develop web pages using hypertext markup language. Explore how the internet works.	Visual Identity Use Canva and photoshop to develop branding and promotional products.	Computer Crime and Cyber Security Hacking, Data protections and the law.
Year 10	System Architecture Understand the specific components in a computer system. Develop understanding of the memory, storage and devices.	Algorithms Computational thinking, including abstraction and decomposition. Comparing search and sorting algorithms including merge and insertion.	Wired and Wireless Networks Understanding internet and IP addressing with packet switching and DNS services. Star and Mesh networks and the use of wireless and wired networks.	Programming Techniques The basic programming constructs including string manipulation, file handling, iterations and arrays.	Network Security and System software Discovering threats and vulnerabilities of a computer systems and programs. Social engineering and the concept of SQL injection.	Producing Robust Programs Continue to build skills in python. Use python turtle to demonstrate a variety of skills.
Year 11	Data Representation Conversion of integers from denary to binary as well as binary addition overflow and shifts.	Algorithms Computational thinking, abstraction and decomposition. Comparing search and sorting algorithms.	System Architecture Understand the specific components in a computer system.	Impacts of Digital Technology Key examples of ethical, cultural and environmental considerations in relation to selected Computer Science technologies.	Exam Preparation Retrieve Topics to complete Paper 1 and Paper 2: System Architecture Memory Algorithms	Exam Preparation Retrieve Topics to complete Paper 1 and Paper 2: Robust Programming Network Security Network Topologies