



Year 9 CS Journey

Tier 3 Vocabulary:

Autumn 1	Autumn 2	Spring 1
PESTLE, Consumer and computing legislation, algorithm, e-waste, social media influences	IP address, Packet switching, TCP/IP Networking layers, Virtual network, VPN, topology	Evaluating a graphic, purpose, audience, Photoshop, Visualisation Planning, Assets

Spring 1

Sp1: □ Image Editing

Why this?

□ Understand audience and purpose of digital graphics. □ Understand the use of pre-production documents in the creative process.

Why now?

□ Embed the links between computer science and creativity. □ To provide a flavour of iMedia prior to options choices.

Reading:

□ The moral and social implications of image manipulation in the media

Au2: □ Computer Networks

Why this?

□ Understand the hardware and software components that make up computer systems. □ How they communicate with one another and with other systems

Why now?

□ Understand the characteristics of network communication prior to learning about algorithms and system security.

Reading:

□ History of the internet

Au1: □ Understanding External Influences

Why this?

□ Examine business and technology interaction. □ PESTLE analysis of business and technology used during pandemic. □ Social influences on business

Why now?

□ Examine the link between business and computer science. □ Flavour of business studies ahead of options.

Reading:

□ The stock market

Autumn 2

Autumn 1

START

Su2: □ System Security

Why this?

Describe computer attacks. Identify network vulnerabilities. Network security policies. Social engineering

Why now?

Widen scope of online safety to include network security and follow on from Computer Networks. Final unit of the year before summer break.

Reading: □ Computer forensics as a career

Su1: □ Algorithms

Why this?

□ Examine fundamental search and sort algorithms of Computer Science. □ Know the preconditions for a sort or search. □ Know how to manually perform algorithmic searches and sorts.

Why now?

□ Final algorithmic/programming unit before year 10. □ Excellent foundation knowledge for GCSE. □ Fundamental concepts of how computers work

Reading:

□ Computing and space exploration

Sp2: □ Python Advanced

Why this?

□ Read and understand existing python programs. □ Use casting of data types. □ Use loops to repeat sections of code. □ Store and update values in a list. □ Know what a function and procedure is.

Why now?

□ Following on from Y8 python and leading into algorithms and system security.

Reading:

□ Algorithms that changed the world

FINISH

Summer 2

Summer 1

Spring 2

Tier 3 Vocabulary:

Spring 2	Summer 1	Summer 2
IDLE, variable, string, assignment statement, data type, casting, integer, float, round, BIDMAS, selection, iteration	Abstraction Decomposition Bubble sort Insertion sort Merge sort Binary search	Social engineering Brute force attacks Denial of service attacks SQL injection Penetration testing