

KS3



Programming - I understand how to use block and text based programming languages, focusing on the building blocks of sequence, selection, iteration and variables.



Problem-solving - I can solve simple programming problems using abstraction, decomposition, pattern recognition and debugging. I can then refine my programs to expand their capability.



Computational Thinking - I have an understanding of the logic systems that underpin modern technologies.



Digital Understanding - I understand the implications of using a range of applications and technologies that enable the digital world to function. I can make informed ethical decisions about the digital world.

KS4



Programming - I have advanced programming knowledge to allow me to use data structures, SQL and sub-routines within solutions.



Problem-solving - I understand how to solve a range of scenario-based programming problems, debug and refine them.



Computational Thinking - I can apply my knowledge of logic systems to interpret and build suitable solutions



Digital Understanding - I have a deepening knowledge of the details of modern communication and data processing. I can ethically consider the implications of using technology in the digital world.

KS5



Programming - I can independently analyse, design and develop bespoke solutions to self-selected programming problems using functional programming, object-oriented programming and advanced data structures and algorithms.



Problem-solving - I can research, analyse and design a program that is a complex project that solves a real-world problem.



Computational Thinking - I have an advanced understanding of logic, communication and the theory of computation.



Digital Understanding - I understand how to consider the consequences of using technology and meaningfully analyse, modify and repurpose and create digital information.



University

Apprenticeship

Careers...

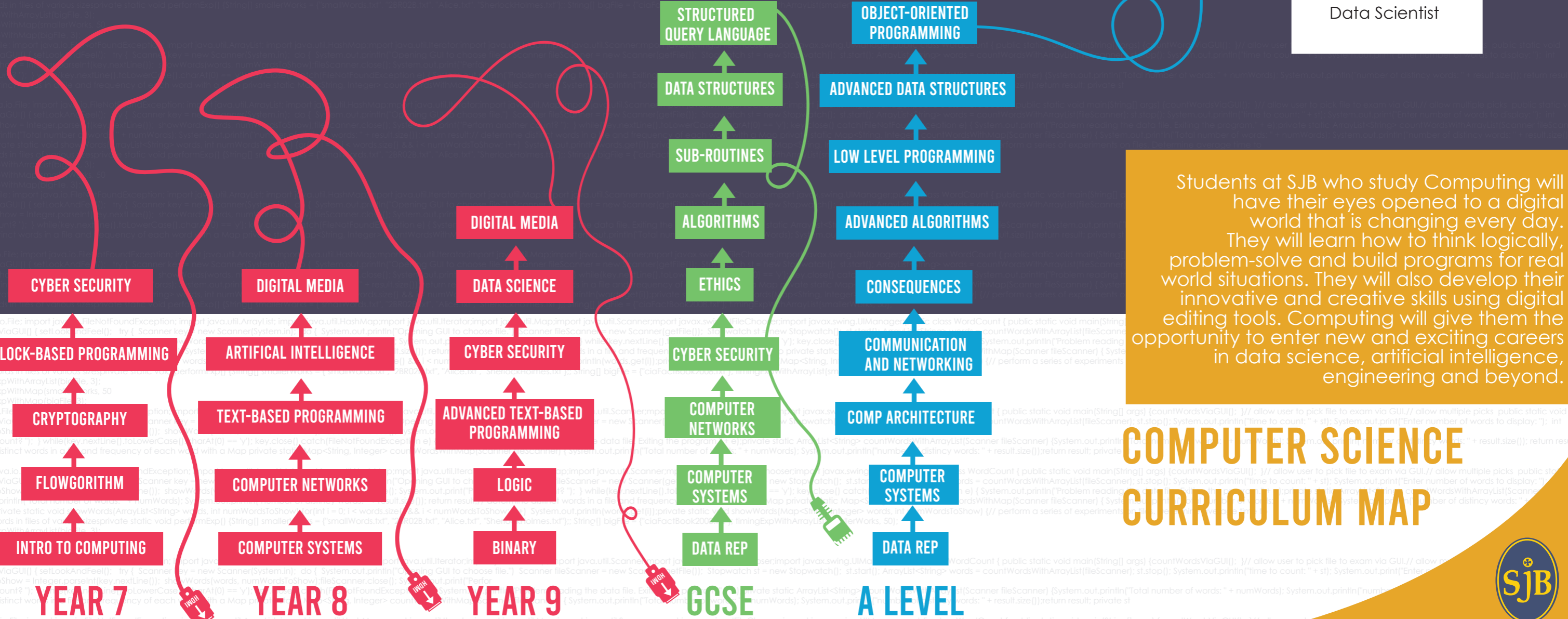
Cyber Intelligence

App Developer

Forensic Analyst

Robotics Engineer

Data Scientist



Students at SJB who study Computing will have their eyes opened to a digital world that is changing every day. They will learn how to think logically, problem-solve and build programs for real world situations. They will also develop their innovative and creative skills using digital editing tools. Computing will give them the opportunity to enter new and exciting careers in data science, artificial intelligence, engineering and beyond.

COMPUTER SCIENCE CURRICULUM MAP

