Thornleigh
Salesian College

Computer Science KS5 Learning Journey

Top 3 tips for parents and carers during KS5

- ✓ Invest in textbooks.
- ✓ Support with revision planning.
- ✓ Ensure that work is being regularly completed on their programming projects.

What's your Plan A?

HE: There are a range of exciting degrees including Computer Science or specialise in a range of different areas of the subject.

Apprenticeship: Software Engineers / Network Architects

Career: A.I Programmer, Games Design, Robotics, Social Media, options are endless!

Online learning during KS5

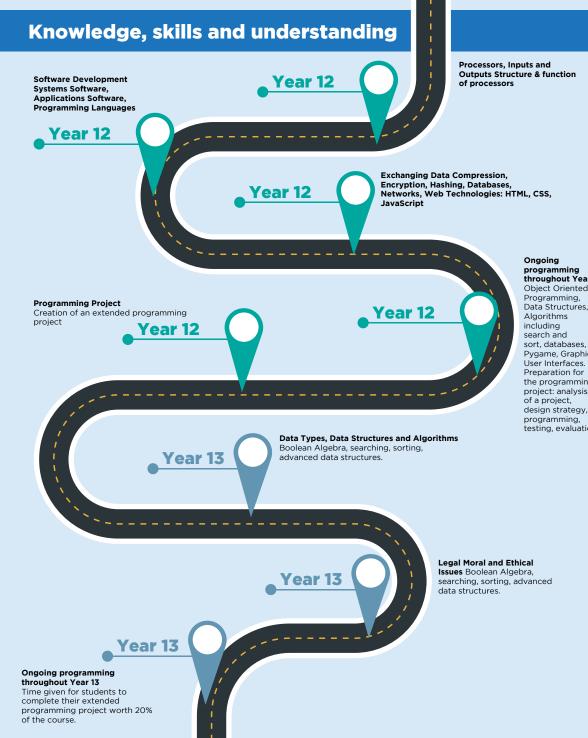Isaac Computer Science

Craig n Dave

You Tube

Google Classroom

PPE preparation for KS5

Learn the key searching and sorting algorithms, data structures and practice question papers. Ensure that context is applied to all questions. Use revision cards / online revision resources but only as a starting point.

Study skills for KS5

Complete the extended learning opportunities provided in each unit. Complete past paper questions. Practice programming in python at home. Use GCSE Pod and Seneca to revise.

Knowledge, skills and understanding

Year 12 — Processors, Inputs and Outputs Structure & function of processors

Year 12 — Software Development Systems Software, Applications Software, Programming Languages

Year 12 — Exchanging Data Compression, Encryption, Hashing, Databases, Networks, Web Technologies: HTML, CSS, JavaScript

Year 12 — Ongoing programming throughout Year 12 Object Oriented Programming, Data Structures, Algorithms including search and sort, databases, Pygame, Graphical User Interfaces. Preparation for the programming project: analysis of a project, design strategy, programming, testing, evaluation.

Year 12 — Programming Project Creation of an extended programming project

Year 13 — Data Types, Data Structures and Algorithms Boolean Algebra, searching, sorting, advanced data structures.

Year 13 — Legal Moral and Ethical Issues Boolean Algebra, searching, sorting, advanced data structures.

Year 13 — Ongoing programming throughout Year 13 Time given for students to complete their extended programming project worth 20% of the course.