

# KS5 Computer Science Learning Journey

Pupils understand and apply the advanced principles and concepts of Computer Science. They analyse, solve, design & develop algorithms and complete a practical project as part of their NEA

Year  
12

**Computer Systems**  
1.1 Characteristics of contemporary processors, input, output and storage devices

**Computer Systems**  
Data types, data structures and Boolean algebra (with programming tasks)

\*Programming activities completed throughout Year 12 & 13

**Computer Systems**  
Databases: Normalisation, SQL, Referential integrity, ACID rules

**Algorithms & Programming**  
Elements of computational thinking: Thinking Abstractly, ahead, procedurally, logically, concurrently

**Algorithms & Programming**  
Search & Sort Algorithms, Pathfinding Algorithms, Big O Notation

**Computer Systems**  
Application Generation & Programming Techniques

Start  
NEA  
Project

Year  
13

**Computer Systems**  
Software and Software development: Operating Systems, Memory Management, Scheduling

**Computer Systems**  
Types of Programming Language, paradigms, Assembly (LMC), OOP and modes of addressing

**Computer Systems**  
Computing related legislation & Moral and ethical Issues

**Computer Systems**  
Compression, Encryption and Hashing,

**Computer Systems**  
Networks & Web Technologies

Focus on  
NEA Project

Revist topics  
and exam  
practice

Exam  
Ready!

