



# Computer Science

Year:10/11

*"Most good programmers do programming not because they expect to get paid or get adulation by the public, but because it is fun to program."*

Linus Torvalds

## Course content

Computer Science GCSE is engaging and practical, encouraging creativity and problem solving. It encourages students to develop their understanding and application of the core concepts in computer science. Students also analyse problems in computational terms and devise creative solutions by designing, writing, testing and evaluating programs.

## Skills developed

- Introduces students to the Central Processing Unit (CPU), computer memory and storage, wired and wireless networks, network topologies, system security and system software. It also looks at ethical, legal, cultural and environmental concerns associated with computer science.
- Students apply knowledge and understanding gained in component 01. They develop skills and understanding in computational thinking: algorithms, programming techniques, producing robust programs, computational logic, translators and data representation.
- Students use OCR assessment tasks to demonstrate their practical ability in the skills developed in components 01 and 02. In a controlled environment they will, define success criteria from a given problem, and then create suitable algorithms to achieve success criteria. Students then code their solutions in a suitable programming language, and check its functionality using a suitable and documented test plan.

## Topics covered

**Component 01:** Computer systems

Written paper, 1 hour 30 mins, 80 marks, 40% of qualification.

**Component 02:** Computational Thinking, Algorithms and Programming

Written paper, 1 hour 30 mins, 80 marks, 40% of qualification.

**Component 03:** NEA Programming Project (Year 11)

Compulsory project needed to gain skills for Paper 2.

## For more information

**Mr J Noble**

**Head of Computing and Business**

[jnoble@wetherbyhigh.co.uk](mailto:jnoble@wetherbyhigh.co.uk)

