Computer Science

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Key topics covered

Unit 1 – Computing Principles including:
Studying modern processors and other related hardware including input, output and storage devices - examining software and software development - learning how data is exchanged within systems and devices - looking at the different data types, data structures and playing with (and evaluating) common but useful algorithms - learning the legal, moral, cultural and ethical issues that increasingly underpin modern society

Unit 2 – Algorithms and programming including:
Learning the elements of computational thinking – developing problem solving skills and programming - developing algorithms to solve problems

Unit 3 - The Programming Project
Where you are unleashed to create the program of your dreams

Recommended Textbook and/or resources

You will need a PC that is connected to the internet – as long as it works, it's perfectly adequate for the course!

Tackling A-Level Projects in Computer Science – PG Online

Computerphile's YouTube Channel
https://www.youtube.com/Computerphile

Downloading and use of an Integrated Development Environment for **Python** and **C#** programming languages is essential to the course

Why Study the Subject/what students Like about it

To put it simply, here are the top 3 reasons to study Computer Science:
(1) Computing is now part of **everything** we do. (2) Expertise in computing enables you to **solve complex, challenging problems.** (3) Computing offers many types of **lucrative** careers & computing jobs are here to stay. *(BONUS) We have VR!*

Why study Computer Science at Hellesdon High Sixth form? A couple of quotes from past students:
"Thanks for your time and helping ignite my passion which has led me to where I am today" - Patrick
"I'd just like to thank you and the team for the past 4 or 5 years (crazy) that we've had together at Hellesdon. It's been a genuine privilege to be taught by you, you've always understood me and the rest of the class so well." - Archie

Opportunities outside the classroom

Opportunities to explore VR headsets using entertainment, edutainment and creative apps

Students are encouraged to keep up with current computing trends via your favourite media

Students are also encouraged to visit computer museums such as the Cambridge Centre for Computing History and Bletchley Park

Future progression/career routes

Computer Science is **amazing** for your future prospects.

The course comes **highly recommended** by all universities. All industry sectors - bar none - require computer scientists. (Yes, even the sports industries!)

