## **Subject: Computer Science (AQA)**

Subject Leader: Richard Martin

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This course covers the following key topics: The course is examined through two papers worth 40 % each. Paper 1 topics: programming; problem solving; algorithms; data structures; regular languages; the Internet. Paper 2 topics: data representation; hardware and software, computer organisation and architecture; communications technology; databases and object-oriented & functional programming. The non-examined assessment is worth 20% of the overall course and is an opportunity to solve a real-world problem for a client of your choosing.

We love teaching this course because it is an opportunity to open up the world to our students and allow them to create technology and solve problems in new and innovative ways. We get to see that monumental change from GCSE students where everything is pre-defined for them to A-level students who choose their own direction and solve their own or their client's problems. Giving young people to problem solving and computational thinking skills to be successful in the real world is great.

#### Our students say:

"A-level Computer Science is better than GCSE because you go into much more depth"

"A-Level Computer Science will help me in the future because computers are everywhere"

"I chose Computer Science because it's such a valuable subject and it can lead you to all sorts of employment"

"I think you get a lot of technical skills out of Computer Science and how things in the world work"



# Recommended Textbooks:

### AQA AS and A Level Computer Science Textbook

PM Heathcote and RSU Heathcote

ISBN: 978-1-910523-07-0

Tackling A Level projects in Computer Science AQA 7517

ISBN: 978-1-910523-20-9

# If you love Computer Science, we really recommend you:

- 1) Check out Project Euler
- 2) Read computer.org/comput er-magazine
- 3) Visit Bletchley Park



What future pathways are open to me if I study Computer Science?

Studying a Computer Science related degree

Working for one of the many digital and creative companies in Norwich

A higher apprenticeship