

Dear Student

In preparation for the start of your 'A' Level Computer Science studies, I would like you to do a little work over the summer.

Course overview:

Unit 1: Computer Systems (40%). This unit is assessed via written examination. Topics include: the characteristics of contemporary processors, input, output and storage devices; software and software development; exchanging data; data types, data structures and algorithms; legal, moral, cultural and ethical issues.

Unit 2: Algorithms and Programming (40%). This unit is assessed via written examination. Topics include: elements of computational thinking; programming and problem solving; pattern recognition, abstraction and decomposition; algorithm design and efficiency.

Unit 3 – Programming Project (20%). Completed in Year 13.

What I'd like you to do over the summer:

Over the summer, I would like you to spend one or two hours a week improving your programming skills. This is important for success in Units 1 and 2.

Most of you will have coded with Python for your GCSE, so it might be nice to learn something new. Unless you have something else in mind, I recommend JavaScript. In recent years, many of my pupils have used JavaScript to create online games for their Year 13 project. The associated results have been very good.

Plenty of excellent coding resources exist online. For example, The Net Ninja has a 47 video introduction to JavaScript on YouTube.

<https://www.youtube.com/watch?v=qoSksQ4shg&list=PL4cUxeGkcC9i9Ae2D9Ee1RvylH38dKuET>

Alternatively, you could sign up for an account with FreeCodeCamp and work through their JavaScript tutorials. <https://www.freecodecamp.org/>

The important thing is that you spend time coding. If you are genuinely interested in Computer Science, this should not be seen as a chore. ☺

I look forward to seeing you in September.

Have a great summer.

Mr Barnett

nbarnett@idsall.shropshire.sch.uk

P.S. If you wish to purchase a course textbook, I recommend this:

<https://www.amazon.co.uk/OCR-AS-Level-Computer-Science/dp/191052305>