Transition to A-Level Computer Science

At St Benedict’s Sixth Form

**The Course**

You will study the OCR A-Level Computer Science H446.

We use the same exam board as we did for GCSE so there should be a smooth transition between courses. The A-Level course covers many of the same topics but at a greater depth as well introducing new concepts to each topic.

The course specification and other OCR documents can be found here. <https://www.ocr.org.uk/qualifications/as-and-a-level/computer-science-h046-h446-from-2015/>

**Programming Project**

The main difference between A-Level and GCSE is the coursework programming project. At A-level the project does count for 20% of your final grade. You must choose your own project that uses a computer system you create to solve a problem. I can guide you with your choice, it must be challenging enough to be worthy of A-level work but not too difficult that you can’t complete it. Apart from that the only criteria set by OCR is it must have a GUI.

You need to have decided on your project by Christmas in year 12 so it would be a good idea to start thinking of some possible projects over the summer.

I have included a folder labelled project with several resources to help you get started.

**Resources**

Take a look at a new resource that is specific to A-Level Computer Science.

<https://isaaccomputerscience.org/> is a relatively new website it has excellent content all focussed at A-Level. You will need to set up and account and you will continue to use this site throughout the A-level course. Once you set up an account go to the “For Students” section and have a look at “All Topics”.

There are 5 the sections under the “GCSE to A-Level Transition” topic to re-familiarise yourselves with before commencing the A‐level.

<https://isaaccomputerscience.org/topics/gcse_programming_concepts>

<https://isaaccomputerscience.org/topics/gcse_data_representation>

<https://isaaccomputerscience.org/topics/gcse_boolean_logic>

<https://isaaccomputerscience.org/topics/gcse_systems>

<https://isaaccomputerscience.org/topics/gcse_networking>

**Other useful resources**

* A-Level Taster.ppt (lots of info about the course really useful if you couldn’t attend the taster lesson at school. Have a go at creating a calculator with a GUI)
* Extend your python programming skills with PyGame <https://www.101computing.net/getting-started-with-pygame/?started?with?pygame/>

You will use many resources that you are already familiar with from the GCSE such as TeachICT and Sololearn as they also A-level sections and you’ll be pleased to know Craig n Dave have a full playlist of videos for each section of the OCR A-Level.

* Teach ICT (computer science) <https://www.teach-ict.com/2016/A_Level_Computing/OCR_H446/OCR_H446_home.html>

Username: ME145DT Password: register3

* Craig n Dave <https://www.youtube.com/channel/UC0HzEBLlJxlrwBAHJ5S9JQg/playlists?view=50&sort=dd&shelf_id=17>
* Sololearn (try a new language such as C# or Java)

<https://www.sololearn.com/>