## **WHGS Sixth Form**

# William Hulme's Grammar School The best in everyone™ Part of United Learning

### Computer Science

Engage Endeavour Excel



#### **GCSE** to A-Level Transition Course

Required programme of study in preparation for the Computer Science A-level at William Hulme's Grammar School.

#### **A-Level Course Details**

The course you will study is the OCR A-level course H446. Read this first, to familiarise yourself with the course of study. bit.ly/ocrh446

#### **Recommended Textbook**

You must buy this textbook to accompany the course: **OCR AS and A Level Computer Science** by Heathcote & Heathcote from **PG Online**, ISBN:978-1910523056. You can buy either the printed book for around £28 at Amazon here: <a href="mailto:amazon.co.uk/dp/1910523054">amazon.co.uk/dp/1910523054</a> or a 2-year subscription to the electronic version for around £9 per year at Classoos.com: <a href="mailto:my.classoos.com/book/10182">my.classoos.com/book/10182</a>.

#### **Transition Course**

Complete these activities to prepare for the course:

#### 1. Isaac Computer Science

This is an excellent website covering the whole A-level course, with a GCSE to A-level Transition course here: <u>isaaccomputerscience.org/topics</u>. Sign up as a student, scroll to the bottom of the Topics page, find the GCSE to A-level transition section, and complete the five transition topics: Programming concepts, Data representation, Boolean logic, Systems and Networking.





#### 2. Craig n Dave Transition Booklet

You should download and complete this <u>Computer Science Transition workbook</u>, made by Craig n Dave who also have free YouTube videos covering all the content, will be excellent preparation for the course.

#### **Further Reading**

If you have completed the two tasks above and still want more, I recommend these activities:

- the legendary edX CS50 from Harvard: <a href="https://www.edx.org/course/cs50s-introduction-to-computer-science">www.edx.org/course/cs50s-introduction-to-computer-science</a>
- Learn the basics of Machine Learning here: <a href="https://www.ibm.org/activities/machine-learning-for-kids">www.ibm.org/activities/machine-learning-for-kids</a>
- Subscribe to these YouTube channels: code.org, Computerphile, Tom Scott, Wired.

Follow **@WHGSComputing** on Twitter for updates from William Hulme's Computing Department.

Any queries to <u>enquiries@whgs-academy.org</u> or call 0161 226 2054 and ask for Mr Harrison, Head of Computing at William Hulme's Grammar School.



