HAMPTON COLLEGE

KS4 GCSE Computer Science

OCR
Oxford Cambridge and RSA

What is the course

Computer Science is the study of computer architecture, networking and security through utility software and the law. Students also have the opportunity to develop understanding of key computing concepts for problem solving and learning how to program solutions to problems as they arise.

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Course Content

- Exam 1 – Computer Systems

1 hour 30 minute exam (50% of total GCSE) 80 marks

- Systems Architecture
- Memory and Storage
- Computer Networks, connections and protocols
- Network Security
- System Software
- Ethical, legal, cultural and environmental impacts of digital technology.

- Exam 2 – Computational thinking, algorithms and programming

1 hour 30 minute exam (50% of total GCSE) 80 marks

- Algorithms
- Programming Fundamentals
- Producing robust programs
- Boolean Logic
- Programming languages and Integrated Development Environments

Assessments

During class students will undergo assessments at the end of each module with an in class written tests (30-60 Minutes long under exam conditions)

Current Grade Boundaries
1 =9%
2 =22%
3 =35%
4 =48%
5 =58%
6 =68%
7 =78%
8 =83%
9 =88%

Practical

During Year 11 students will complete a compulsory 5 hour independent programming practical task, this allows for students to demonstrate their programming capabilities.

The practical is not assessed as part of the course but is required to be completed by all students.

Textbook and Lessons

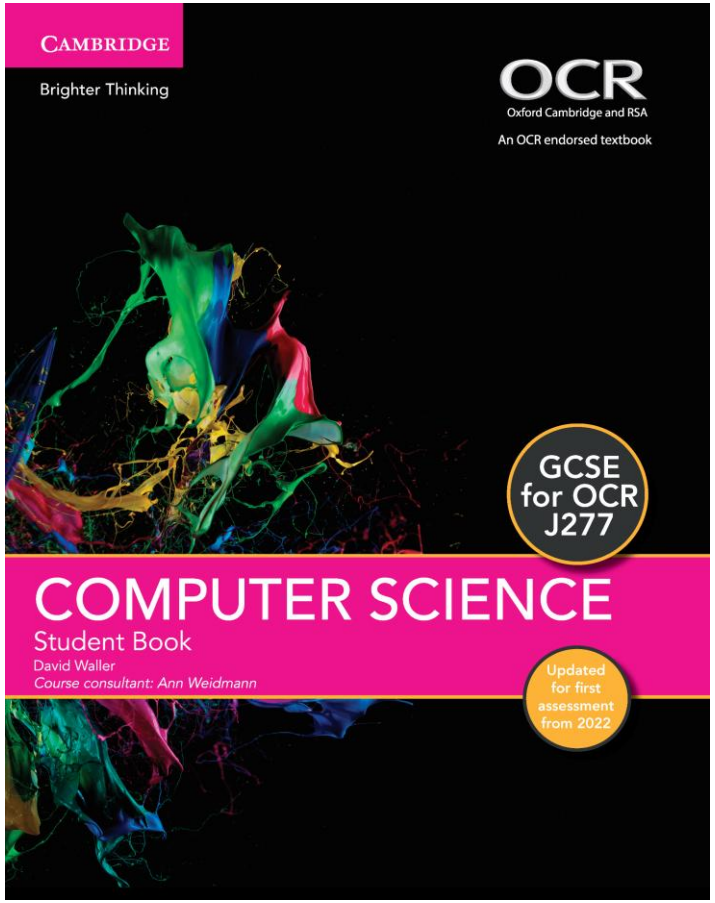
Textbook;
We use the OCR Computer Science Student Book for OCR J277
This book is provided to student through the online textbook website:

https://www.cambridge.org/go/

Each students has their own copy of the text book allowing them to annotate pages and watch videos and complete interactive activities.

All presentations from lessons are available to students through teams

Both of these can be accessed using mobile phone applications



Other Resources and Home Learning

Home Learning expectation is that every student will spend 15 minutes a week minimum revising the work from class.

To do this we use:

Online Textbook – https://www.cambridge.org/go/

Seneca Learning - https://app.senecalearning.com/

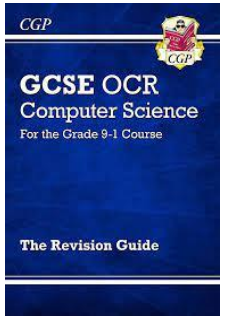
Ada Computing - https://adacomputerscience.org/

Isaac Computer Science – https://isaaccomputerscience.org/

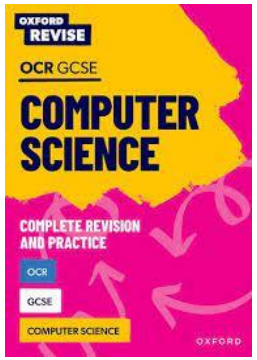
Additional Texts

If you are considering buying a revision guide the following options are available.

In year 11 we will provide a copy of the CGP revision guide for each student to borrow and return after their last computer science exam.



GCSE Computer Science OCR Revision Guide
ISBN: 9781789085563



Oxford Revise: OCR GCSE Computer Science
ISBN: 978-1382044080