KS5 Reading List for Computer Science

Reading for careers and wider interest

Isaac Computer Science
Careers**: Careers — Isaac Computer Science**
Computer Science Journeys: **Computer Science Journeys — Isaac Computer Science**

Computer Science for Fun
A true "A to Z" of computing related articles and discussions, as a free magazine with engaging articles on real-world Computer Science applications.
https://www.cs4fn.org/

Best A-Level Combinations for a Computer Science Degree
This piece discusses the best subject combinations to take alongside Computer Science to maximize your chances of getting into top universities and succeeding in the field
What are the best A Level combinations and subjects for a Computer ...

A-Level Computer Science: A Complete Guide
This article provides an in-depth look at what to expect from A-Level Computer Science, including the skills you'll develop and the opportunities it can open up for you
A-Level Computer Science: A Complete Guide - TutorChase

The Verge
News stories about new developments in Computing.
https://www.theverge.com/

The MagPi
Great for students interested in hardware and Raspberry Pi projects.
Raspberry Pi Official Magazine

Reading for Support Studies

Core Textbooks (OCR-Specific)

OCR AS and A Level Computer Science H446 Textbook - *PM Heathcote and RSU Heathcote*

A complete course text which includes AS and A Level for the H046/H446 specifications.

ISBN: 9781910523056

ClearRevise Exam Tutor OCR A Level H446

Exam tutor and practice papers. A source of exam tips and coaching, which includes two complete practice exam papers, answers to all questions, and Specification references for every topic.

ISBN: 9781910523407

Alternatives:

OCR A Level Computer Science (H446) - *George Rouse, Jason Pitt, Sean O'Byrne*

The official textbook for the OCR course. Covers all units including algorithms, data structures, theory of computation, and programming.

My Revision Notes: OCR A Level Computer Science – *George Rouse*

Great for exam preparation, with concise summaries and practice questions.

Websites

Ada Computer science

The free learning platform for computing students.

Ada Computer Science

Topic-Based Enrichment

1. Programming & Problem Solving

"Automate the Boring Stuff with Python" – Al Sweigart

Practical Python projects that build confidence and real-world skills.

"Think Python" – Allen B. Downey

A gentle introduction to programming and computational thinking.

Project Euler – projecteuler.net

Challenging problems to develop algorithmic thinking.

2. Algorithms & Data Structures

"Grokking Algorithms" – Aditya Bhargava
Visual and beginner-friendly introduction to algorithms.
"Introduction to Algorithms" – Cormen, Leiserson, Rivest, Stein (CLRS)
Advanced reference for students aiming for top grades or university-level CS.

3. Computer Systems & Architecture

"Code: The Hidden Language of Computer Hardware and Software" – Charles Petzold
Explains how computers work from first principles—ideal for Unit 1 topics.
"But How Do It Know?" – J. Clark Scott
A simple, clear explanation of how a computer works at the hardware level.

4. Theory of Computation

"Computational Fairy Tales" – Jeremy Kubica
Fun and accessible stories that explain abstract CS concepts.
"The Annotated Turing" – Charles Petzold
For students interested in the theoretical foundations of computing.

5. Legal, Ethical, and Social Aspects

BBC Bitesize: OCR A-Level Computer Science – Ethical, Legal and Environmental Impacts
Free and exam-focused summaries.
"Blown to Bits" – Hal Abelson, Ken Ledeen, Harry Lewis
Explores the digital explosion and its implications on privacy, ethics, and society.

Reading to Support the NEA Coursework Programming Project

Core Textbook (OCR-Specific)
Tackling A Level projects in Computer Science OCR H446 - *Ceredig Cattanach-Chell*
An essential student guide for completing the project and, in particular, the report, with confidence and independence.
ISBN: 9781910523193

10 Best Computer Science Projects Ideas for Final Year Students
While aimed at final-year students, this article offers project ideas that can inspire you and give you a taste of what you might work on in the future
10 Best Computer Science Projects Ideas for Final Year Students

33 Best Computer Science Project Ideas & Topics for Beginners

This list is perfect for beginners and includes a variety of project ideas that can help you get hands-on experience with different aspects of computer science

[33 Best Computer Science Project Ideas & Topics For Beginners to …](#)

75+ A-Level Computer Science NEA Ideas

This article provides a comprehensive list of Non-Exam Assessment (NEA) project ideas, which are crucial for your A-Level coursework

[75+ A-Level Computer Science NEA Ideas (and why they're good)](#)