Computer Science

Computer Science

Exam Board: OCR

Lesson time: 9 Hours per fortnight

Independent study time: 9 Hours per fortnight

Computer Science | Assessment

OCR A Level

1 | Computing Principles

- Written paper
- 2 hours and 30 minutes
- 40%

2 | Algorithms and problem solving

- Written paper
- 2 hours and 30 minutes
- 40%
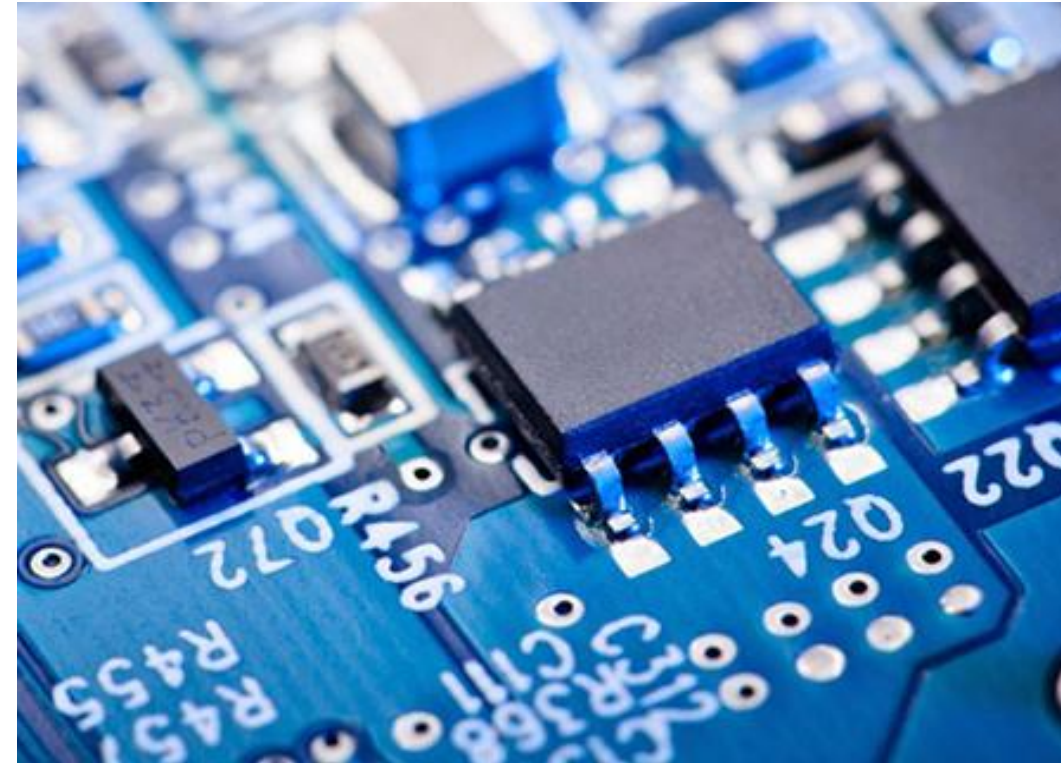
3 | Programming project

- Non-exam assessment
- 20%

Computer Science | Subject Content

1 | Computing Principles

- The characteristics of contemporary processors, input, output and storage devices

- Software and software development

- Exchanging data

- Data types, data structures and algorithms

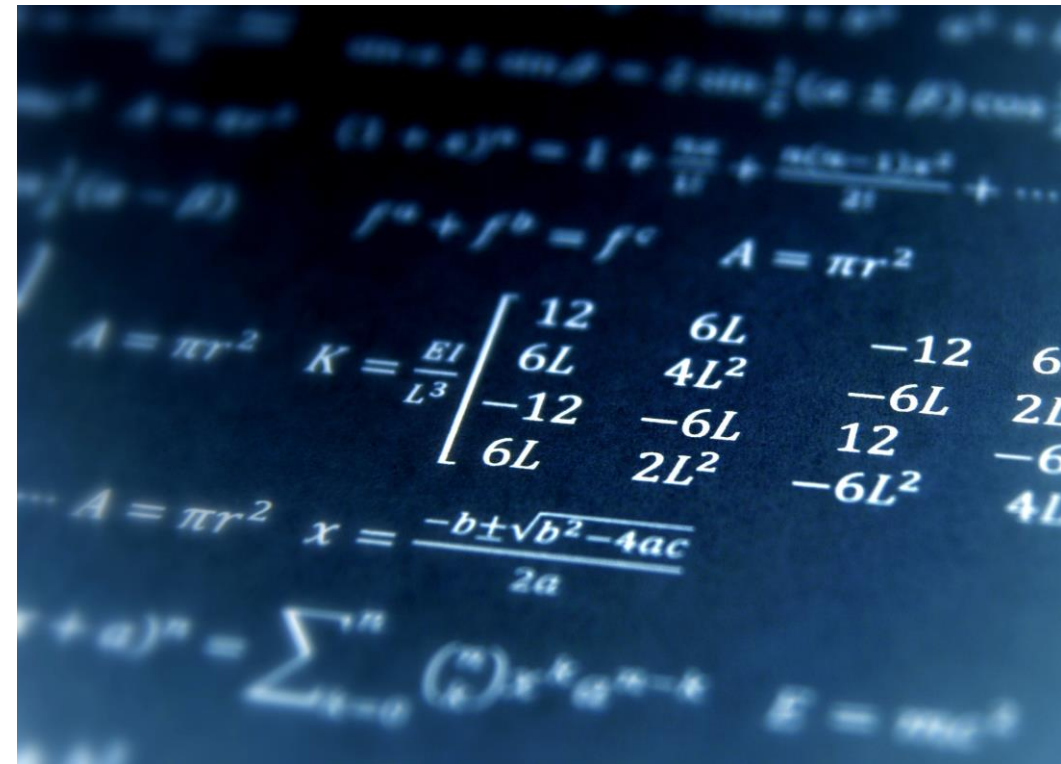- Legal, moral, ethical and cultural issues

Computer Science | Subject Content

2 | Algorithms and problem solving

- Elements of computational thinking

- Problem solving and programming

- Algorithms

Computer Science | Programming Project

Students complete a significant programming project in Year 13, which accounts for 20% of their final grade.

Project topics include:

- Computer games
- Mobile applications
- Desktop software applications
- Web-based platforms
- Database solutions

- Research project
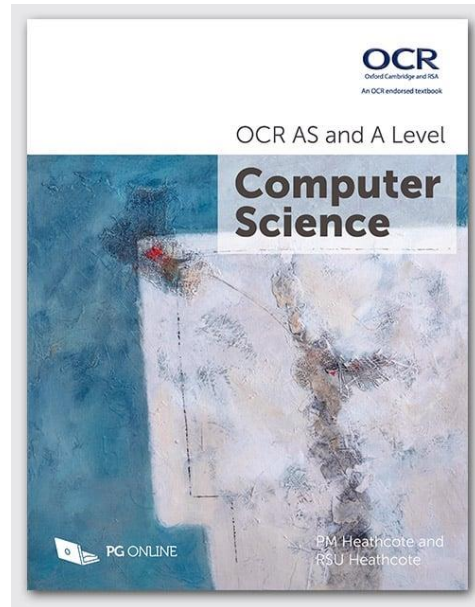- Simulation
- Data analysis software
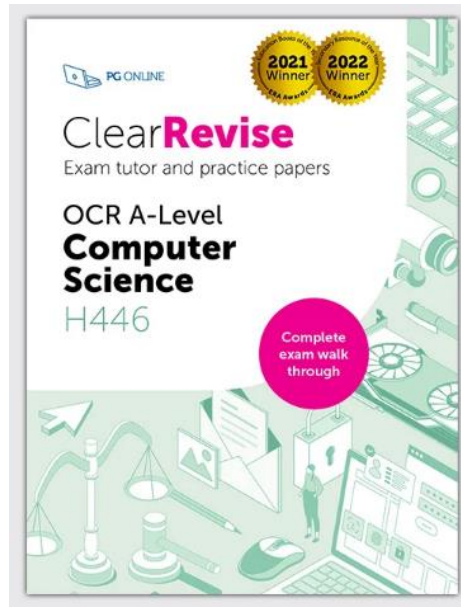
Computer Science | C#

- As a .NET programming language, C# is similar to Visual Basic in many respects.

- It is a powerful language, widely used for developing desktop applications, video games, mobile apps, web applications.
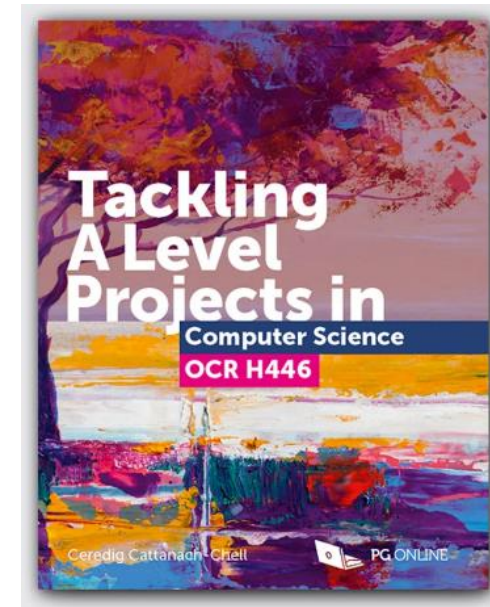
Computer Science | Textbooks

OCR AS and A Level Computer Science Textbook
PM Heathcote and RSU Heathcote
ISBN: 9781910523056

ClearRevise Exam Tutor OCR A Level H446
Exam tutor and practice papers
ISBN: 9781910523407

Tackling A Level projects in Computer Science OCR H446
Ceredig Cattanach-Chell
ISBN: 9781910523193

Computer Science | C# Warm-Up

1. Open Visual Studio
2. See if you can write a program that:

   - Generates a random number from 1 to 10 and stores it in a variable.
   - Prompts the user to guess what the number is.
   - Lets the user know if their guess was too high, too low or spot on.

If you're feeling brave, put your code into a while loop and give the user three guesses to get the number.