

Computer Science

What is Computer Science?

GCSE CS gives you an excellent opportunity to investigate how computers work and how they're used, and to develop computer programming and problem-solving skills.

- CS and Engineering rank in the top 3 of highest paying degree subjects
 - CS 2nd highest in jobs available in the UK

Course Structure

The course is **100 % exam**.
With **2** exams: 50% on paper 1, & 50% on paper 2.

Paper 1 - Computer systems

Topics:

- Systems architecture
- Memory and storage
- Computer networks, connections and protocols
- Network security
- Systems software
- Ethical, legal, cultural and environmental impacts of digital technology



Paper 2: Computational thinking, algorithms and programming

Topics:

- Algorithms
- Programming fundamentals
- Producing robust programs
- Boolean logic
- Programming languages and Integrated Development Environments

```
1 price = 1000000
2 has_good_credit = True
3
4 if has_good_credit:
5     down_payment = 0.1 * price
6 else:
7     down_payment = 0.2 * price
8 print(f'Down payment: {down_payment}')
```

Subject expectations

1. Exemplary effort, attainment and progress in Computing/ICT.
2. Willingness to show initiative & resilience.
3. Love of learning – enjoyment of the subject.
4. A particular interest and passion for Maths, Science & Engineering, and programming.
5. Programming skills and previous knowledge of Python helpful.

Career Pathway

- Web Developer
- Data Analyst – Business, Sport etc
- Engineering
- Artificial Intelligence
- Medicine
- Software Engineer or Architect
- Network IT Management
- Armed Forces

Business Studies

What is Business?

GCSE Business gives you an excellent opportunity to investigate how a small business is set up and run. It will develop your independence and improve your critical and reflective thinking.

- Business is the 2nd most popular degree course taken in the UK
 - Can be ideal for someone looking to own or run a business in the future.

Course Structure

The course is **100 % exam**.
With **2** exams: 50% on paper 1, & 50% on paper 2.

Paper 1 – Investigating small business

Topics:

- 1.1 Enterprise and entrepreneurship
- 1.2 Spotting a business opportunity
- 1.3 Putting a business idea into practice
- 1.4 Making the business effective
- 1.5 Understanding external influences on business



Paper 2: Building a business

Topics:

- 2.1 Growing the business
- 2.2 Making marketing decisions
- 2.3 Making operational decisions
- 2.4 Making financial decisions
- 2.5 Making human resource decisions



Subject expectations

1. Exemplary effort, attainment and progress in Computing/ICT.
2. Willingness and resilience to learn something completely new.
3. Love of learning – enjoyment of the subject.
4. A particular interest and passion for Finance, Economic and Management.
5. Business skills and previous knowledge of worldwide business contexts helpful.

Career Pathway

List the careers that your subject can take you into.

- Business adviser
- Business development manager
- Project manager
- Stockbroker
- Supply chain manager
- Human resources officer
- Marketing executive
- Banking
- Retail manager