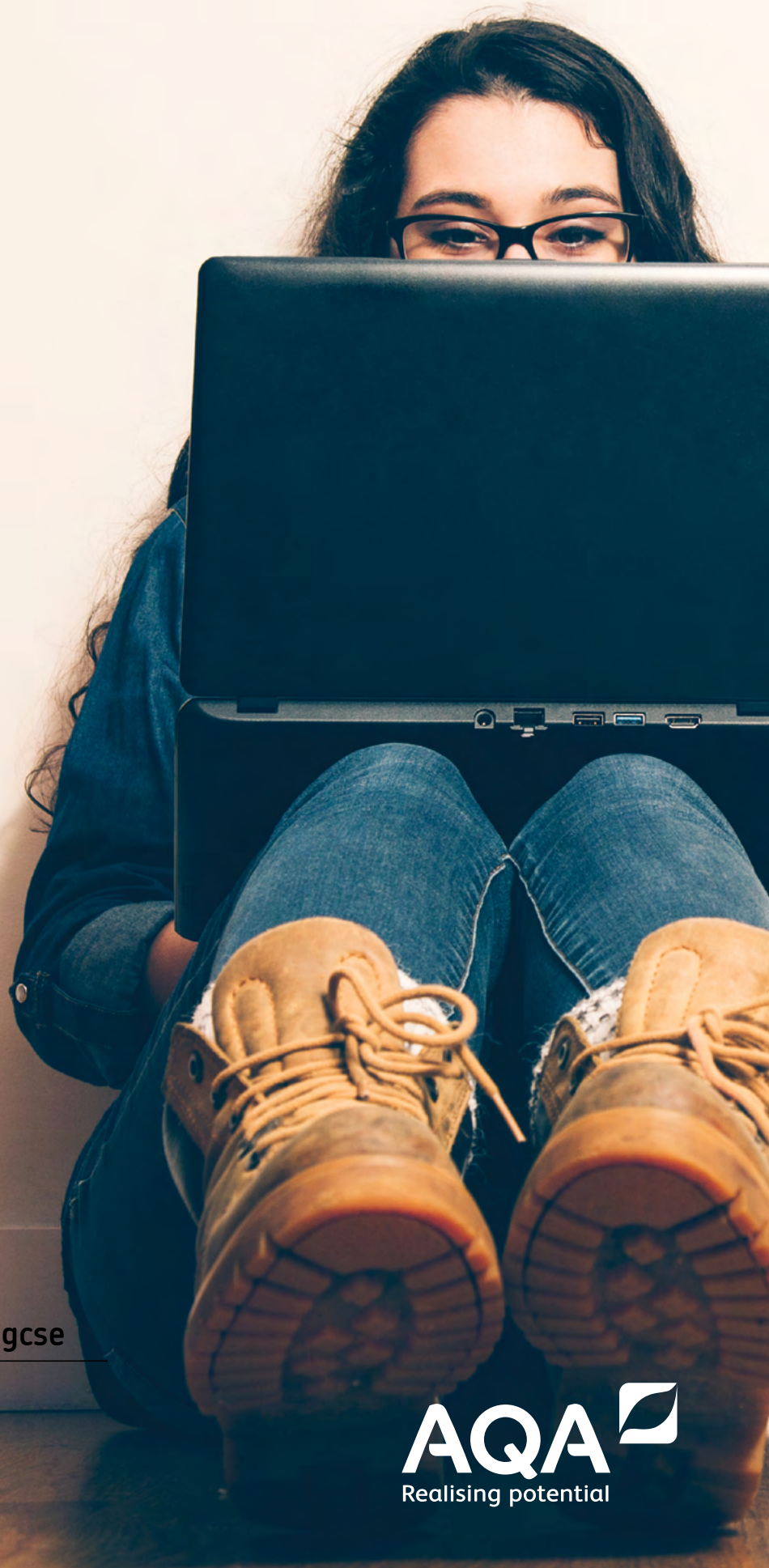
GCSE Computer Science: Learn the language of the future

Student guide



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Thinking about studying GCSE Computer Science?

You'll gain the skills to enable you to understand how to design and build apps, investigate how algorithms help create computer codes and the importance of cyber security and the ethical impacts of digital technology.

GCSE Computer Science helps you think about how technology is created. It allows you to understand how people work together with computers to develop world changing programmes like Facebook, Spotify and eBay

You'll also develop the skills that colleges, universities and employers are looking for – and they'll prove valuable for the rest of your life.

GCSE Computer Science goes really well with lots of other subjects, especially the sciences, fashion, textiles, music, maths and art and design.

What will you study?

Over the course you will cover the following:

- **Computational thinking:** this is the process of thinking through a complex problem, taking the time to understand what the problem is and then develop potential solutions for evaluation. These are then presented in a way that a computer, a human, or both, can understand.
- **Theoretical content**: here you will understand the fundamentals of data representation and computer networks. You will earn about the computer systems that you will create and use and also delve in to the world cyber security and ethical legal and environmental impacts of digital technology.
- **Aspects of software development:** understand how to implement and test a design to make sure it works effectively. Learn how to complete an overall evaluation to help refine the end product.

How will you be assessed?

You will have two written exams which are 1 hour 30 minutes each. Together they contribute to 80 % of your overall grade. Your non-exam assessment assesses your ability to use the knowledge and skills gained through the course to solve a practical programming problem. You will follow a systematic approach to problem-solving and will be assessed over 20 hours of work, which makes up the final 20 % of the assessment.

Will GCSE Computer Science help you get a good job?

Yes. Computer science is such an exciting subject and can provide you with huge opportunities across lots of industries; this list shows some of the jobs you could do:

- Computer programmer
- Day trader
- Machine learning engineer
- CAD designer
- Shapeways 3D printing materials manager
- Games developer
- Legoland designer
- Clothes designer
- Tumblr product manager
- Software developer
- Software architect
- Geographical information systems officer
- Secondary school teacher
- Technical author
- Music data analyst
- MI5 MI6 and GCHQ.

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What skills will you learn?

Alongside the practical expertise you'll develop in your studies, you'll also gain transferable skills which are valued in both higher education and the world of work. These include:

- problem-solving
- analysis
- how to develop your skills to understand the ever changing world of technology
- working independently and within a team to identify and solve problems
- writing code
- logical thought
- research methods.

How will it fit in with my other subjects?

Computer science compliments subjects that use problem-solving, data analysis and understanding how to interpret results to provide a clear working path. According to bestcourse4me.com top GCSE courses taken by students alongside computer science include:

- music
- business
- maths
- textiles and fashion
- physics
- art and design.

Can't wait to get started?

Your teacher will be the best person to help you decide whether this course is the right choice for you. They'll be as passionate as you to find the best subjects to develop your talents and set up your working life.

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