



Mount St Mary's Catholic High School

Educating The Individual For The Benefit Of All

GCSE Computer Science

Why Study GCSE Computer Science?

GCSE Computer Science is an exciting, innovative and creative subject, which has a far-reaching impact on almost all aspects of our lives. It will begin to give you the knowledge, skills and understanding required to make computers and technology meet the needs of the future. As well as acquiring subject specific knowledge you will develop problem solving, logical thinking, data analysis, creativity and programming skills that are extremely attractive in all sectors of the modern workplace. You will also consider the enormous impact computer technologies have on humans and the environment from an ethical and legal point of view. So, if you want to be more than just a consumer of technology, GCSE Computer Science is the right course of study for you.



Careers Options

With Computer Science the possibilities are endless; companies like Microsoft, Apple, Google, Facebook and many more household names are all possible employers. A qualification in GCSE Computer Science will compliment any job and industry you want to specialise in in the future; but there are loads of Computer Science specific jobs and apprenticeships you can go on to with this qualification such as:

- Artificial Intelligence Engineer
- Cyber Security consultant
- Network manager/specialist
- Forensic computer analyst
- Information systems manager
- Cloud technology specialist
- Technician/Technical support
- Software Developer (computer programmer)
- Data Scientist
- App Developer
- Database administrator
- Game developer/designer
- Social media manager
- Digital Marketing
- Systems Analyst

What you will study

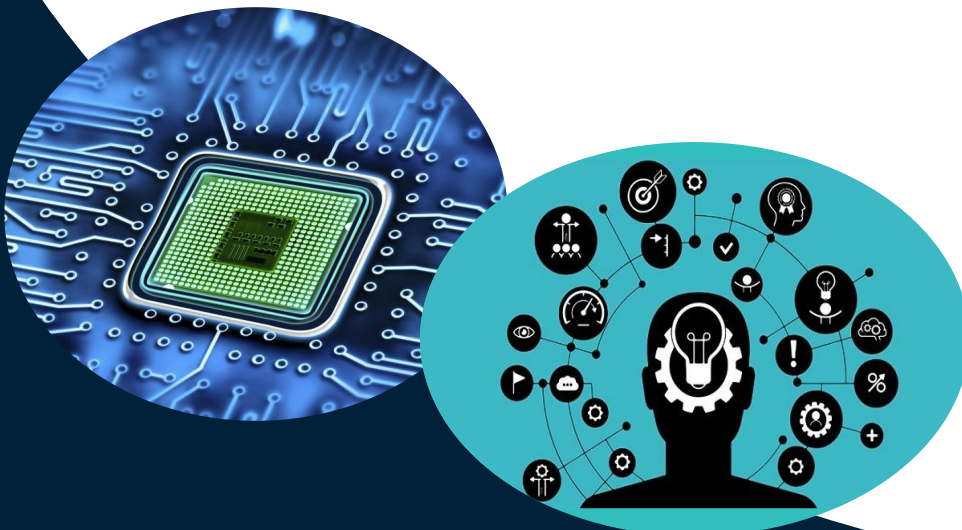
Computer Systems	Computational thinking, algorithms and programming
How processors work	Study fundamental algorithms in Computer Science
Computer memory and storage	Programming techniques
Modern network layouts and how they function	Flowcharts and pseudocode
Cyber security	How to test programmes and make them resistant to misuse
How types of software are used within computer systems (operating systems and utility software)	Boolean algebra (AND, OR, NOT)
How computers and computing affect ethical, legal, cultural and environmental issues	How we store data within computers in binary form

You will also learn how to write code and programme in Python and undertake a programming task which will allow you to develop your skills to design, write, test and refine a computer programme using a high-level programming language. You will also be using Microsoft Office applications such as Word, Powerpoint, Excel and Outlook and developing a range of IT skills.

Any other relevant information

This is a fantastic industry to work in and a GCSE Computer Science qualification will put you in an ideal position to take advantage of the jobs of the future. The Leeds City region had over 14,000 skill shortage vacancies for digital professional roles in the last year alone. There is a predicted 10% increase in digital jobs in the Leeds City region by 2024 and the average salary in the digital sector in the region is £37,500.

<https://futuregoals.co.uk/digital>



How is the subject assessed?

You will be assessed on your knowledge and practical skill using various software programmes and responding to problems that can be solved using IT.

The department are currently reviewing the various computing qualifications available but there will be a focus on using IT and learning about the theory behind application, with an externally examined element and project based tasks as you progress into Year 10.

For further information contact:

J. Barnes (Course Leader - Computing) - j.barnes@mountstmarys.org



