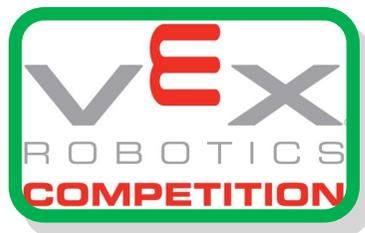


Theory of Computer Science

- 1.1 System Architecture
- 1.2 Memory and Storage
- 1.3 Computer networks, connections and protocols
- 1.4 Network Security
- 1.5 Systems Software
- 1.6 Ethical, legal, cultural and environmental impacts of digital technology

Programming Theory

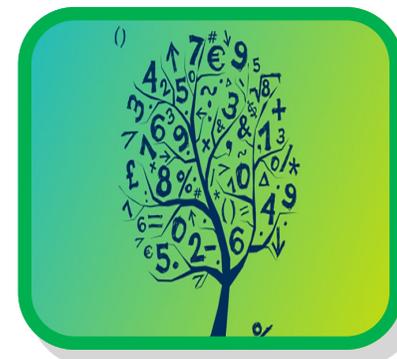
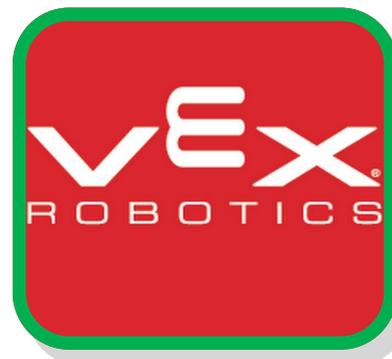
- 2.1 Algorithms
- 2.2 Programming Fundamentals
- 2.3 Producing Robust Programs
- 2.4 Boolean Logic
- 2.5 Programming languages and Integrated Development Environments



We have a thriving robotics team, and have won multiple Devon regional championships. If you are a Computer Scientist you may be asked to help out with our teams.

Isca Academy

Computer Science



Expect Maths, Logic, Python Programming, and not always being in a Computer Room!

GCSE Computer Science

Who is this course for?

Firstly, not just boys! The course is designed for people who like to solve problems, program and work in teams to help solve complex problems.

If you have enjoyed your experiences of programming in Year 7 & 8 then you will enjoy Computer Science.

Computer Science is aimed at pupils who have good problem solving skills and who enjoy Maths. It can tie in with many other subjects including music, dance and Physics.

If you are going to college it is a great course to give you support into A levels. These could include Games Design, Games Testing, Web Design and Mobile Phone development. It will also help with Maths based courses such as Electronics.

Careers in the future could include; Computer Programmer, Web developer, Games Tester, Games Developer, Project Manager and any job within the field of technology.

Homework

Your homework will be set every week and will involve watching and reviewing videos on each of the theory topics and using your knowledge organiser.

Some homework will also involve programming at home.

You will also receive a Revision Book to help you achieve your maximum potential.



What GCSE Computer Science involves:

Year 9

Throughout Year 9 you will learn how to program in Python. How to break down a task into simpler steps and be taught to think logically.

Year 10

We will work on Computer Systems 01—which is paper 1 content mainly and you will complete 20 hours of independent coding on a task set by OCR.

Year 11

Will be a recap of the previous 2 years, and include more in-depth analysis of CPUs and how they function, memory use and high level programming and maths.

Content Overview	Assessment Overview	
Computer systems <ul style="list-style-type: none">• Systems Architecture• Memory• Storage• Wired and wireless networks• Network topologies, protocols and layers• System security• System software• Ethical, legal, cultural and environmental concerns	Computer systems (01) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	50% of total GCSE
Computational thinking, algorithms and programming <ul style="list-style-type: none">• Algorithms *• Programming techniques• Producing robust programs• Computational logic• Translators and facilities of languages• Data representation	Computational thinking, algorithms and programming (02) 80 marks 1 hour and 30 minutes Written paper (no calculators allowed)	50% of total GCSE