Year 10 and 11 - GCSE Computer Science

Curriculum content

Half term	Year 10	Year 11
Summer 2	Introduction to Computational Thinking Introduction to Computer Systems Algorithms Part 1	Data Storage (Numbers) End of year revision End of year exam Data Storage (Characters, Images & Sound)
Autumn 1	Algorithms Part 1 (continued) Computer Memory Programing Techniques Part 1 Embedded Systems	Software (incorporate Legal issues) Facilities of Languages Robust Programs (Authentication & Validation) Sub Programs
Autumn 2	Computer Storage (incorporate Legal issues) Programing Techniques Part 1 (continued) Robust Programming Part 1	Programming Project Systems Architecture (incorporate Environmental issues) System Security (incorporate Legal & Ethical issues)
Spring 1	Systems Architecture (incorporate Environmental issues) Programming Techniques Part 2	Networks (incorporate Legal & Ethical issues) Mock Exam revision Mock Exam
Spring 2	Systems Architecture (continued) Programming Techniques Part 2 (continued) Software (incorporate Legal issues) Robust Programming Part 2	Networks (continued) Revision of Legal, Ethical & Cultural issues
Summer 1	Software (continued) Algorithms Part 2	Paper 1 Revision Paper 2 Revision

Skills

The GCSE in Computer Science will equip students with a range of computational thinking and programming skills and provide opportunities to develop, in context, desirable, transferable skills such as analysis, planning, problem solving, review and working with others.

The qualification will enable students to develop:
- valuable thinking and programming skills that are extremely attractive in the modern workplace;
- computational thinking skills and how to apply them;
- analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs;
- creative thinking skills by creatively, innovatively, analytically, logically and critically solving problems to develop a solution;
- mathematical skills relevant to Computer Science;
- memory recall skills regarding knowledge of topics on the specification;
- research, analytical and evaluative skills;
- skills that interpret and present information to effectively communicate;
- independent working skills;
- efficient time management skills;
- digital literacy skills to be able to successfully find, evaluate, create and communicate information.

Assessment

This is a linear assessed course with external assessment taking place at the end of Year 11. Students must also complete a compulsory 20-hour Programming Project.

There are two externally assessed papers, each equally weighted:

Paper 1 – Computer Systems

Paper 2 – Computational thinking, algorithms and programming

Further details about the course can be found at: https://www.ocr.org.uk/qualifications/gcse/computer-science-j276-from-2016/