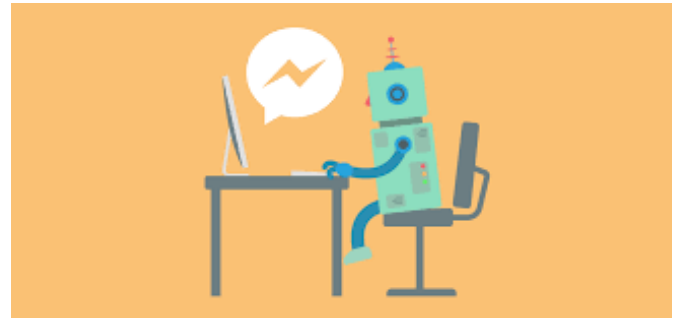# Computer Science

chatbot

Key Stage 3

Year 7

In Year 7, our learners work on a range of computational thinking and programming projects that include Edison robots. Learners develop their understanding of how computer science impacts society such as drones, robotics, artificial intelligence and augmented reality and smart devices. Learners finish the year creating simple chatbots in Python.

Year 8

In Year 8, our learners research and present information based on famous computer scientists such as Ava Lovelace, Alan Turing, George Boole and Charles Babbage. Our learners learn about networks, and cryptography and finish the year creating games in Greenfoot.

Year 9

In Year 9, our learners discuss the social, environmental, ethical, and legal issues associated with the use of computers in society. Our learners convert binary and hexadecimal numbers and learn algorithm design. We develop websites in HTML/CSS and finish the year creating interactive stories in Python.

Ada Lovelace

Computer Science

Key Stage 4

This rigorous and highly academic course provides students with a stimulating and motivating study of computer science fit for the 21st century.

WJEC's GCSE Computer Science specification is designed to address concerns expressed by the Royal Society and the Computing at School Working Group about computing education in the United Kingdom, with students actively involved in creating content as opposed to merely being consumers of it.
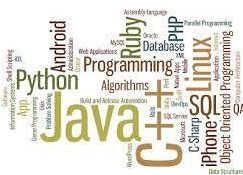
The specification offers students the opportunity to understand and apply the fundamental principles and concepts of computer science, including; abstraction, decomposition, logic, algorithms and data representation, whilst also designing, writing and debugging computer programs.

Assessment is 80% examination and 20% controlled assessment and is divided into three units:

Unit 1 - Understanding Computer Science (50%)	Weighting	Marks
1 hour 45 minutes examination to assess understanding of the theory content of the specification.	50%	100
Unit 2 - Computational Thinking and Programming (30%)		
2 hour on-screen examination to assess understanding of algorithm design, programming languages: HTML & Greenfoot, and assembly language.	30%	60
Unit 3 - Software Development (20%)		
Internally assessed and externally moderated 20 hour controlled assessment to develop a piece of work using programming software following a task brief issued by WJEC. Pupils will learn how to program in Python to complete the task.	20%	80

All assessments are to be completed in Year 11.

The depth of coverage means that this course will provide a solid foundation for either the study of A Level Computing or ICT and employment.

http://www.wjec.co.uk/qualifications/computer-science/