

Key Stage: 4

Subject: Computer Science

**Aims of the subject:** Computer science is the scientific and practical study of computation: what can be computed, how to compute it, and how computation may be applied to the solution of problems. This subject prepares students to thrive in an increasingly digital world. **GCSE** 

## **Examination Board:** AQA **Assessment Overview:**

- 80% written exam (2 x 1.5hrs)
- 20% Non-exam assessment

Year	What will I learn?	Assessment
Year 9	Term 1 Foundation programming – learning the basics of Python programming using skills such as mathematical operations, variables, expressions, data types, functions and control structures. Term 2 Completing a series of mini-tasks to develop your mastery of Python programming. Term 3 Advanced programming – building on the basics of Python with skills such as lists, dictionaries, working with external files, classes and error handling.	Every term you will complete a GCSE level problem using a range of scenarios. These will assess your programming capability.
Year 10	Term 1 Fundamentals of data representation, algorithms and further programming. Term 2 Computer Systems and further programming. Term 3 Fundamentals of computer networks and further programming.	Every term will be assessed using a specimen NEA and past paper questions.

Year 11	Term 1	NEA will be internally assessed
	NEA completion	
	Term 2	Theory will be assessed using past paper
	Fundamentals of cyber security	questions.
	Ethical, legal and environmental impacts of digital technology	
	Term 3	
	Exam preparation	

## **Extra-curricular opportunities**

IT suites are always available at break, lunch and after school to practise your skills and develop them further.

## How you can support your child's progress

There is a text book which I recommend is purchased at the beginning of the course. There are also many books and websites which will allow further progression in computer programming outside of the classroom.