Subject Information

Course Summary

This exciting GCSE gives you an excellent opportunity to investigate how computers work, how they’re used, and to develop computer programming and problem-solving skills. You’ll also do some fascinating in-depth research and practical work. The course builds upon skills learned through units such as Scratch Games Programming from Key Stage 3 and pupils would be expected to further their skillset.

Students Suited to the Course

Programming involves a lot of problem solving and the ability to think logically. Pupils who enrol on this course will benefit from strong mathematical skills though this is not absolutely necessary. The ability to learn by reading text however, is an essential skill. Programming involves learning a new language, that although uses English keywords requires new syntax or rules, so reading ability is paramount. Pupils will need to have certain amount of autonomy and self discipline and be willing to attend after school sessions when necessary. Homework is set for every topic of study and is usually a revision topic to help solidify learning from the classroom and boost end of unit test scores.

Course Structure

The course is made up of three Units of work as follows.

Unit 1: Written paper: Computer Systems - The unit embraces the theory of Computer Science and pupils will work through a mixture short and long answer questions, some of which will expect the pupils to write program code. The topics include; systems, software, hardware, data representation, databases, networking and programming.

Unit 2: Written paper: Computational thinking, algorithms and programming Pupils look at how to problem solve in a logical manner. We look closely at algorithms, computational logic, language facilities and data representation.

Assessment Methods

This qualification is assessed through three units.

Unit 1: Computer Systems

Written Paper: 80 Marks (1:30) (50%)

Unit 2: Computational thinking, algorithms and programming

Written Paper: 80 Marks (1:30) (50%)

Possible Progressions

This course follows the new National Curriculum for the subject of Computing. After completing the course pupils will have the skills required to further study a Computer Science A level or work in a Computing orientated apprentice-ship. The course leads into many areas of Computing, problem solving, games development and programming.

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