Edexcel GCSE in Computer Science

Computer technology continues to advance rapidly and the way that technology is consumed has also been changing at a fast pace over recent years. The growth in the use of mobile devices and web-related technologies has exploded, resulting in new challenges for employers and employees. This course aims to provide students with the knowledge and skills to program their own applications. The course will be a firm basis for future studies in ‘A’ level Computer Science and degree level studies.

Computing is of enormous importance to the economy, and the role of Computer Science as a discipline itself and as an ‘underpinning’ subject across science and engineering is growing rapidly. This has opened up exciting opportunities for many interesting careers.

You should be able to think logically and enjoy being creative. You need to be able to work in a variety of different ways and use your initiative in order to solve problems. It would be help but not essential if you already had some Python skills.Students will do practical programming using python. They will learn how to write, debug and test their programs to enable them to develop the skills to articulate how programs work and argue using logical reasoning for the correctness of pro-grams in solving specified problems. Students will also study theory of:•Data –understanding binary, data representation, data storage andcompression.•Computational thinking -understanding of what algorithms are, what they areused for and how they work; ability to follow, amend and write algorithms;ability to construct truth tables.•Computers -understanding of hardware and software components ofcomputer systems and characteristics of programming languages.•Networks -understanding of computer networks and network security.•Issues and impact -awareness of emerging trends in computingtechnologies, and the impact of computing on individuals, society and theenvironment, including ethical, legal and ownership issues.Paper 1 -Written exam: 1 hour 30 minutes • 75 marks • 50% of GCSE Paper 2 -Practical assessment of programming skills: 2 hours • 75 marks • 50% of GCSE Computer Science

For more information about Computer Science please contact Mrs Hunt or your Computing teacherRZH01@millais.org.ukAssessmentSkills