WHAT IS THE COURSE ABOUT:

Why study Information and Communication Technology?

The recent changes have followed demand for courses requiring a greater emphasis on computing and its associated

skill, programming. The course will investigate how computers work, how they are used and will aim to develop

problem-solving and programming skills. There is a practical part to the course that will involve independence and

analysis of the problems which are set. You will need to be an active participant in the lessons and you will acquire an

essential foundation for other courses, including those specific to the use of computers and new technology, including

A-levels, vocational and occupational courses.

The skills covered will include:

the ability to understand & implement emerging technologies.

how to analyse, design, test & evaluate ICT systems.

consider the impact as to which new technologies will have on ways of working and the social, economic &

ethical issues associated with them.

an awareness of the ways ICT can help in practical & work-related scenarios.

aspects of computing such as hardware, software, networks, databases, data types, algorithms and Java

You will learn:

how to use design, code & test a solution using a suitable programming language.

about the practical design of ICT systems.

how to apply ICT to real life situations & solve problems.

how to use ICT to research, acquire, manipulate & present information.

WHAT EXAMS ARE THERE AND WHEN ARE THEY TAKEN:

This course runs a terminal examination. The theory papers will be sat in the summer at the end of Year 11.

Theory Paper 01: Computer Systems

Written paper testing the body of knowledge about computer systems: Systems Architecture, Memory, Storage, Wired and Wireless Networks, Network Topologies, Protocols and Layers, System Security, System Software, Ethical, Legal, Cultural and Environmental Concerns. 80 marks weighted at 40% of total. 1 hour 30 minutes

Theory Paper 02: Computational Thinking, Algorithms and Programming

Written paper testing the body of knowledge about computational thinking, algorithms and programming: Algorithms, Programming Techniques, Producing Robust Programs, Computational Logic, Translators and Facilities of Languages, Data representation. 80 marks weighted at 40% of total. 1 hour 30 minutes.

Controlled Assessment 03: Programming Project

Practical test assessing programming techniques, via design & development of a coded solution, including its testing. 40 marks weighted at 20% of total. 20 hours conducted Term 1 and 2 of Year 11 during lessons

HOW CAN I SUPPORT MY SON IN THIS SUBJECT? For the GCSE course, the school will have digital resources, both external and internal, along with materials endorsed by the examination board. These are issued to the pupils and alongside examination style papers, should cover the material sufficiently. However, further background reading is always recommended and in this instance staying abreast of new technology will maintain motivation. Other websites do exist for pupils to offer guidance to the problems which will be set and pupils will code, but they are only useful AFTER attempts at solving the problem themselves.