

## **ICT**

### **Year 7**

The focus is on providing the new intake students with the fundamental skills required to function confidently around the school. There is a responsibility to provide students with a comprehensive understanding of how to use presentation software, publishing software, spreadsheet modeling software and programming software.

There are 4 key assessments in Year. The academic year starts with a multimedia presentation using the students' interests as the topic, this is called 'About Me'. We move onto creating a publication about Birds in the local community and link this to the Big Garden Birdwatch and the RSPB.

The third assessed topic introduces spreadsheet modeling; this involves modeling the finances of a snow board shop. The final topic is based on game design and animation using Scratch software as the platform to create and code a basic game or animation.

### **Year 8**

The focus is on developing the student's skills in the core software areas and applying advanced skills where possible. Within this focus students will be provided with various opportunities to use different software packages, enabling them to make informed choices about how they present and display their work.

Again there are 4 key assessments. We start the academic year creating a photo-shoot and designing an image. All students have the opportunity to use photographic equipment and software to produce a challenging anti-bullying campaign image. We move onto creating a database by converting a paper data base from 1989 to a functional database that can be interrogated.

The third assessed topic focuses on web design using Serif Web Plus to design a collection of web pages that promote a local village or town. The final assessment for the year is an enterprise based topic that provides students with the opportunity to design, market and present a platform game again using Scratch software and building on the concepts taught in Year 7.

### **Year 9**

The focus is on following a syllabus for a qualification in ICT. This is the Cambridge Nationals ICT Level 1 award from OCR, there are 2 mandatory units; the first is based on skills for Business and uses the core software applications to demonstrate competencies. The other mandatory unit is a 1 hour exam based on computer science and technology. We would like to offer students the opportunity to sit the exam at the end of Year 9 and complete the qualification if they have achieved a full portfolio for the first mandatory unit.

The key learning outcomes are that pupils will be able to:

- understand how ICT can be used to meet business needs
- know how to work with information and data to meet specified business needs
- know how ICT can be used to support business working practices
- understand how legal, ethical, safety and security issues affect how computers should be used
- use techniques to search for, store and share information
- select and use software to handle data
- select and use software to communicate information for a business purpose
- use software tools to format information

## **GCSE Business Studies**

This course brings together the subjects of Business Studies, Enterprise and Economics with a view to understanding how a Business works. It provides students with a wide range of knowledge and practical ICT skills essential in today's modern business world.

The course covers two core themes delivered over two years.

Theme 1 - Investigating a Small Business

Theme 2 - Building a Business

Theme 1 looks at all aspects of a small business. You will learn about Enterprise and the different Businesses that exist. You will develop the ability to spot an opportunity and how to put a business idea into practise. You will look at how to make a business effective and what will influence success and failure.

Theme 2 provides the opportunity to understand how businesses grow, how to market and advertise and how to make effective business decisions. You will learn about the finances in business and the human resources required to run a business.

You will undertake 2 exams, one on each theme. The exams will take place at the end of the course. They will be written exams and both will last for 90 minutes, they are worth 50% each. Links have been built with local businesses to support your study and develop your understanding of different workplaces. You will gain a valuable insight into business needs within today's modern market and how business opportunities are created. You will develop your presentation of information skills, a general business understanding and be able to analyse the risks associated with enterprise as well as the financial and non-financial objectives when running a business.

The course aims to incorporate key ICT skills in the core business topics covered, which include spotting a business opportunity, marketing, understanding the customer, human resources, finance, recruitment and economics. The course is business driven and students will gain some essential skills that link with industry; they will experience real world topics that will broaden their understanding of the business world, which will enhance their choices in the future. Examination results in the subject area have been consistently high; students enjoy the delivery of the subject and have a good opportunity to be successful. Related subjects at AS, A vocational A level or BTEC National course are Business, Economics, Law, Retail, ICT, Leisure and Tourism or Media.

### **Computer Science**

This course brings together the elements of computing and programming. It is designed to help students understand and apply the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms, and data representation. It will provide students with a wide range of knowledge and practical computing skills essential in today's modern business world.

The course is made up of 3 core components and delivered over two years.

Component 1 - The Principles of Computer Science.

Written examination: 1 hour and 40 minutes.

50% of the qualification and 80 marks covering the following areas:

- What algorithms are, what they are used for and how they work. Developing the ability to interpret, amend and create algorithms.
- Writing program code.
- Understanding binary representation, data representation, data storage and compression, encryption and databases.
- Understanding of components of computer systems; learning how to construct truth tables, produce logic statements and read and interpret pseudo-code.
- Understanding of computer networks, the internet and worldwide web.
- Awareness of emerging trends in computing technologies, the impact of computing on individuals, society and the environment, including ethical, legal and ownership issues.

Component 2 - Application of Computational Thinking

Written examination based on a scenario: 2 hours

50% of the qualification and 80 marks.

This unit covers the same areas as Component 1, the focus is on encouraging the development of practical computing skills so that students can apply them to a given context.

Component 3 - Non examined practical controlled assessment: 20 hours.

Students will develop a computer programme. The content for this component will draw on:

- Algorithms, decomposition and abstraction
- Design, write, test and refine a program
- Data

The aims and objectives of this qualification are to enable students to analyse problems in computational terms through the practical experience of solving problems, including designing, writing and debugging programs. Students will be encouraged to think creatively, innovatively, analytically, logically and critically. They will learn about the impacts of digital technology to the individual and to wider society, they will apply mathematical skills relevant to computer science.

Related subjects at AS, A vocational A level or BTEC National course are Computer Science, Games Development, IT and Maths. Related careers include: Computer programming web design and development, network administrator, systems analyst, systems engineer, intelligence analyst, game designer.