



# COMPUTING DEPARTMENT

Curriculum Overview



The curriculum of the school reflects the demands of the National Curriculum. It is designed in order to provide all pupils with a broad, balanced education relevant to their needs both now and in the future.

## Departmental Overview

The Computing Department comprises 5 specialist teachers based within 5 state-of-the-art computer suites. The department is paperless and uses a Virtual Learning Environment so you can access your work on the go.

## Departmental Staff

Mr G Roberts                      Head of Computing and Business Faculty

Mrs D Cook                      Head of KS3

Mr K Dempsey                    Computing Teacher

Mr M Keegan                    Computing Teacher

Mr L Rymill                      Head of Computing

Mr R Warwick                    SLT Line Manager

# Year 7 COMPUTING & FINANCE (KS3)

## Examination/Specification Board

## Curriculum Overview

In year 7 and 8 Computing and Finance is a core subject taught once a week. We aim to prepare the boys with the necessary skills for success when using a computer for a variety of things. We follow the Key stage 3 computing framework.

Year 7 boys will study:

- Introduction / E-Safety - Staying safe online
- Introduction to Business
- Scratch
- Business Marketing
- Computing hardware and software
- What is money?

## Examinations/Key Assessments

Assessments are carried out in the form of a weekly quiz and then the boys will sit an end of half term exam each half term. The pupils will also create a 'mini project' at the end of each half term which is assessed and up-levelled.

## Homework

Homework is set on Moodle every week in the form of a quiz based on what has been covered in the lesson (and sometimes the lesson before too).

## How Parents can Help

Parents can help by making sure that their child is completing homework quizzes and is up to date with their work by checking on Moodle.

# Year 8 COMPUTING & FINANCE (KS3)

## Examination/Specification Board

## Curriculum Overview

In year 7 and 8 Computing and Finance is a core subject taught once a week. We aim to prepare the boys with the necessary skills for success when using a computer for a variety of things. We follow the Key stage 3 computing framework.

Year 8 boys will study:

- Computer Crime / Cyber Security
- Personal Finance
- Programming in python
- National business and tax
- HTML Coding
- Political systems

## Examinations/Key Assessments

Assessments are carried out in the form of a weekly quiz and then the boys will sit an end of half term exam each half term. The pupils will also create a 'mini project' at the end of each half term which is assessed and up-levelled.

## Homework

Homework is set on Moodle every week in the form of a quiz based on what has been covered in the lesson (and sometimes the lesson before too).

## How Parents can Help

Parents can help by making sure that their child is completing homework quizzes and is up to date with their work by checking on Moodle.

# Year 11 ICT (KS4)

## Examination/Specification Board

WJEC

## Curriculum Overview

A course in Information and Communication Technology offers a unique opportunity in the curriculum for candidates to identify and solve real problems by designing information and communication systems in a wide range of contexts relating to their personal interests. Information and Communication Technology develops candidates 'interdisciplinary' skills and their capacity for imaginative, innovative thinking, creativity and independence. Collaborative working is a life skill that students will explore in the context of computing. Areas covered range from developing an understanding of project management and the advantages and disadvantages of home working, to technologies that aid collaboration such as video conferencing.

## Examinations/Key Assessments

Unit 1: Understanding computing (External assessment 1.5hrs.)

Unit 2: Solving Problems with computing (Controlled assessment 22.5hrs.)

Unit 3: computing in Organisations External assessment 1.5hrs.)

Unit 4: Developing Multimedia computing Solutions (Controlled assessment 22.5hrs.)

## Homework

Homework will be given out at least once a week and may be in the form of revision, research or completion of a coursework task.

## How Parents can Help

The department considers parents as a valuable resource in helping to monitor their children's progress by ensuring they have a good attendance record so that they do not fall behind in controlled assessments.

# Year 9/10/11 Computing (KS4)

## Examination/Specification Board

WJEC

## Curriculum Overview

This course comprises of three areas:

### **Understanding Computer Science:**

This unit covers the body of knowledge about computer systems on which the examination will be based.

### **Solving Problems Using Computers:**

See Assessment Details.

### **Developing Computer Solutions:**

An investigative computing task, chosen from a list provided by WJEC, which assesses the following: research, technical understanding, analysis of problems, historical perspective, use of technical writing skills, recommendations/evaluation.

Students will take part in a programming project

- Understand standard programming techniques.
- Be able to design a coded solution to a problem including: Develop suitable algorithms; Design suitable input and output formats; Identify suitable variables and structures; Identify test procedures.
- Create a coded solution fully annotating the developed code to explain its function
- Test their solution: To show functionality; to show how it matches the design criteria.

## Examinations/Key Assessments

Assessment is divided into three units:

1. Understanding Computer Science (45%) - 90 minute examination to assess understanding of the theory content of the specification.
2. Solving Problems Using Computers (30%) - 2 hour external assessment to assess the practical application of knowledge and understanding through a series of on-screen tasks.
3. Developing Computing Solutions (25%) - internally assessed and externally moderated 15 hour controlled assessment to develop a piece of work using programming software following a task brief issued by WJEC.

## Homework

Homework will be given out at least once a week and may be in the form of revision, research or completion of a coursework task.

## How Parents can Help

Check that deadlines are met for coursework. A full set of the deadlines will be available on the school website.

# Year 12/13 COMPUTING (KS5)

## Examination/Specification Board

OCR (CTEC)

## Curriculum Overview

This pathway focuses on the development of a range of applications across platforms and sectors. Students will gain the right combination of knowledge, understanding and skills required for the 21st century, enabling them to demonstrate the skills of writing specifications, and the design, build, testing and implementation of applications. In addition to the mandatory units, students must also achieve the mandatory pathway unit Application Design. Topics covered include:

- Fundamentals of IT (exam)
- Global Information (exam)
- Application Design
- Project Management
- Internet of Everything

This qualification is suitable for those wishing to gain a Level 3 qualification to support further study in Further Education and Higher Education. IT can also lead into employment in the more specialised fields of Computing such as Computer Science, Programming, Network engineers and managers.

## Examinations/Key Assessments

There are five units of work in which two of them are a compulsory written exam (to be taken at in Year 13). In Year 12 you will complete the three coursework units, leaving just two external exams to study for in Year 13.

## Homework

Homework will be given out at least once a week and may be in the form of revision, research or completion of a coursework task. Assignments are set online using the Moodle VLE area.

## How Parents can Help

Check that deadlines are met for coursework. A full set of the deadlines will be available on Moodle.