COMPUTING DEPARTMENT

Curriculum Overview

The curriculum at West Derby School reflects the aspirations we have for all students. It is designed to be as ambitious as the National Curriculum, offering a first-class education that is rich in knowledge and skills, whilst also being broad and balanced throughout the key stages. In Computing we aim to encourage students to develop their understanding and application of the core concepts in computer science. Students also analyse problems in computational terms and devise creative solutions by designing, writing, testing and evaluating programs.

Departmental Overview

The Computing Department comprises 4 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.

The department has worked tirelessly to ensure that the Computing curriculum is accessible for all students. Resources and teaching methods are adapted to ensure that all students, regardless of SEN background, are able to experience the full Computing curriculum that we offer. All students are invited to study Computing at KS4 and 5.

Departmental Staff

Mr G Roberts	Head of Computing and Business Faculty
Mrs D Cook	Head of ICT
Mr K Dempsey	Computing Teacher
Mr L Rymill	Head of Computing
Mrs S Wilkinson	SLT Line Manager

Year 12/13 IT (KS5)

Examination/Specification Board

Level 3 (OCR Cambridge Technical Introductory Diploma in IT)

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
- Social Media and Digital Marketing
- 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.

	Term 1	Term 2	Term 3
Year 12	Unit 17 – Internet of Everything • What is meant by IoE • Repurposing technologies • Present concept ideas	Unit 1- Fundamentals of IT • Understand computer hardware • Understand computer software • Understand business IT systems • Employability and communication skills • Ethical issues and threats to computer systems	Unit 2 – Global information • Transmission and storage of information • Global information styles • Benefits to individuals and organisations • Legal and regulatory framework for storing data • Data security
Year 13	Unit 6 – Application Design • Understand how applications are designed • Investigate potential solution or applications	Unit 13 - Social Media and Digital Marketing • Understand digital marketing • Use of social media in business • Plan content for appropriate social media campaigns	Unit 1 and Unit 2 Examinations • Unit 1 pre-release • Unit 1 12 mark question preparation • Unit 2 exam preparation

	• Generate designs for applications • Present application solutions to meet client requirements	• Develop social media campaigns	• Past Papers • Key word quizzes

New Knowledge (What pupils will know by the end of Year 13)

Pupils will have detailed knowledge of the fundamentals of IT on how to use computer hardware and software for business solutions. They will be able to minimise the risk of IT networks through understanding of threats to computer systems and also how to act ethically. Looking at global information, pupils can have an understanding the legal and regulatory framework set out by UK law for storing data correctly.

New Skills

Pupils will have developed their programming skills to present an application that is suitable to meet user requirements. With knowledge of social media and digital marketing pupils will have developed their understanding of how business use channels to target customers. Pupils will also have developed their presentation skills during a presentation of their findings in front of their peers.

Disciplinary Vocabulary

All key vocabulary will be on Moodle for each unit so that it is available for all pupils. Some of the key terms which are important for success on the course include: Internet of Everything, concept, hardware, software, threats, data, transmission, information, security, applications, social media, digital marketing

https://www.ocr.org.uk/Images/273311-command-verbs-definitions.pdf

Prior Learning and Recall

Pupils who have studied GCSE Computing will be able to use this knowledge to help them with their coursework which focuses the use of IT to create solutions. Pupils should also have prior knowledge of UK law, computer hardware and software.

Examinations/Key Assessments

There are five units of work (3 compulsory externally examined units 1, 2 and 6) then two optional controlled assessment units. Each one is marked internally then externally assessed to be verified. Grades awarded are Distinction* equivalent to A*, Distinction equivalent to A, Merit equivalent to C, Pass equivalent to E. The coursework units will involve deadlines that all pupils will be expected to meet to ensure all work can be externally moderated. Pupils will also complete a progress task for each Learning Objective (LO) for Unit 1 and Unit 2 with feedback given. Coursework will be marked in detail by the class teacher, informing pupils of how they are doing, highlighting areas of weakness and strength. Pupils are also taught to mark their own work and the work of their peers. This allows pupils to understand how their work is assessed and how it can be improved.

Homework

Homework is set on a weekly basis and recorded via Moodle. The homework set will relate to the topic being taught and may include;
• Written responses to questions, data or worksheets.
• Investigative research.

• Interactive quizzes.
• Projects including coursework.
• Revision of subject content in preparation for unit tests.

How Parents can Help

Encourage your son/daughter to complete assignments via Moodle. All pupils should keep up to date with current business news as this can be helpful in exams and/or coursework for examples.

- Ensure that basic equipment is brought to each lesson. A pen, pencil and ruler are the minimum requirements.
- Encourage the use of the Internet for homework completion and revision
- Ensure pupils revise for assessment tests.
- Ensure pupils are completing all coursework and uploading it to Moodle to be assessed.