

Computer Science

Head of ICT - Mr S Howe

The Course Edexcel::

Key aspects of the qualification include; how computers work, making connections, data matters, computational thinking, practice and programming.

Unit 1: Principles of Computer Science (1hr 30 min Written Exam, 40%)

This component will introduce learners to the Central Processing Unit (CPU), computer memory and storage, wired and wireless networks, network topologies, system security and system software. It is expected that learners will become familiar with the impact of Computer Science in a global context through the study of the ethical, legal, cultural and environmental concerns associated with Computer Science.

Unit 2: Application of Computational Thinking (2Hr written Exam, 40%)

This unit encourages learners to apply knowledge and understanding using computational thinking. Learners will be introduced to algorithms and programming, learning about programming techniques, how to produce robust programs, computational logic, translators and facilities of computing languages and data representation. Learners will become familiar with computing related mathematics.

Unit 3: Programming project (20hr Non-Exam Assessment 20%)

This is a practical unit where you will create a program that provides a solution to a specified problem. You will be expected to design, write a program (in a programming language), test your problem and then evaluate it.

Skills you will learn include; programing in Python, Linux commands, Shell script, Algorithms, software design, problem solving and critical thinking skills.

What could it lead to in Sixth Form?

Level 3 qualifications such as Diplomas
A Level/GCE ICT/Computing

What careers/University courses would this subject help me to enter?

Possible University Courses

Computer Forensics, Ethical Hacking, Software Engineering, Computer Science, Artificial Intelligences and Computer and Video Games

Possible Careers

Software Developer, App Designer, Project Management and Technical ICT

Revision guide: Revise Edexcel GCSE (9-1) Computer Science Revision Workbook: For the 9-1 Exams ISBN—1292131195

Text book: Edexcel GCSE (9-1) Computer Science Student Book
ISBN—1292125888

Photography

Head of ICT - Mr Howe

The Course AQA:

GCSE Photography will introduce you to a variety of experiences exploring a range of lens-based and light-based media, techniques and processes, including both traditional and new technologies. Within the course you will explore overlapping and combinations of areas such as portraiture, landscape photography (working from the built or natural environment), still life photography, (working from natural or manufactured objects), documentary photography, photo journalism, narrative photography, reportage, fine art photography and photography involving a moving image (television, film and animation).

Unit 1 - Portfolio of work (Coursework 60%)

In this unit you will create a portfolio of work that explores and demonstrates a range of skills and techniques in a variety of areas within photography, such as the ability to explore formal elements of visual language; line, form, colour, tone, pattern, texture, in the context of lens-based and light-based media.

Unit 2 - Externally Set Task (10 Hour Practical Exam 40%)

Within this unit you will be set a project brief from the exam board, where you are expected to develop your work using the knowledge and experiences gained from Unit 1 to produce a final piece of work as well as linking your end product to an established artist.

What could it lead to in Sixth Form?

Level 3 qualifications such as Diplomas
A Level Photography
A Level Media

What careers/University courses would this subject help me to enter?

Possible University Courses

Photo Journalism, Multimedia, Photography

Possible Careers

Photography can lead to a number of different careers in a range of sectors such as Photojournalists, Sport Photographer, Commercial Photography and Journalism.

OCR ICT Creative iMedia

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The Course:

These qualifications will assess the application of creative media skills through practical use. The Creative iMedia course will equip you with a range of creative media skills and provide opportunities to develop, in context, desirable and transferable skills such as research, planning and review, working with others and communicating creative concepts effectively. Through the use of these skills, you will ultimately be creating fit-for-purpose creative media products. The Creative iMedia will also challenge you, by introducing creative media techniques; encouraging independence, creativity and providing tasks that engage. The 'hands on' approach will require you to use various technology. The qualification design, including the range of units available, will allow learners the freedom to explore the areas of creative media that interest them as well as providing good opportunities to enhance their learning in a range of areas.

Unit 1 – Pre-production skills

This unit will enable you to understand pre-production skills used in the creative and digital media sector. It will develop your understanding of the client brief, time frames, deadlines and preparation techniques that form part of the planning and creation process.

Unit 2 – Creating digital graphics

The aim of this unit is for you to understand the basics of digital graphics editing for the creative and digital media sector. You will learn where and why digital graphics are used and what techniques are involved in their creation.

Possible optional units include creating 2D and 3D digital characters, storytelling with a comic strip, creating a multipage website, creating a digital animation, creating interactive multimedia products, creating a digital sound sequence, creating a digital video sequence, digital photography, designing a game concept and developing digital games.

What could it lead to in Sixth Form?

Level 3 qualifications such as Diploma in Creative Media
A Level ICT and Media

What careers/University courses would this subject help me to enter?

Possible University Courses

IT and Business, Multimedia, Computer Science and Media

Possible Careers

Media, Project Management, Graphic Designer, Technical ICT, Journalist and Web Designer