Curriculum Detail 2019-2020

Computing / ICT

Topics covered at Key Stage 3:

Year 7

Term	Unit	Focus
Autumn 1	My Digital World	Introduces the students how to stay safe in the digital world.
Autumn 2	My Digital World	Students learn how to write formal Emails, how to use search engines efficiently and how to reference work.
Spring 1	PowerPoint	Students learn how to create engaging PowerPoints.
Spring 2	Word	Students learn how to use Word proficiently.
Summer 1	Excel	Students learn how to use Excel formula to create graphs and charts.
Summer 2	Access	Students learn how to create databases and create reports based on the data.

Year 8

Term	Unit	Focus
Autumn 1	Photoshop	Introduction to Photoshop.
Autumn 2	Advanced Scratch	Students will build on their year 7 knowledge.
Spring 1	Binary/Bits and Bobs	Introduces to students how data is saved and teaches them how to count in Binary.
Spring 2	Introduction to Python	Introduces an IDE programming environment through the use of text to students.
Summer 1	HTML & CSS	Builds on the prior knowledge learnt in year 7 to create a more professional advanced product.
Summer 2	Shooter Game	Students will look into the world of gaming and then use Game Maker to create a platform game.

Topics covered at Key Stage 4:

Year 9 Computing

Term	Spec	Focus:
Autumn 1	System Architecture / Memory	Students look into how components work within a computer.
Autumn 2	Networks / System Security	Students learn what networks exist and how they are put together along with system security.
Spring 1	Issues / Computational Logic	Students learn about computing laws and how logic gates are used within a computer.
Spring 2	Data Representation	Advancing from year 8 students learn hexadecimal.
Summer 1	Translators and IDE's	Students recap Python using an IDE.
Summer 2	Computational Thinking.	Students will learn how to plan in terms of Algorithms, Flowcharts and testing.

Year 10 Computing

Term	Spec	Focus:
Autumn 1	Computational Thinking.	Students will learn how to plan in terms of Algorithms, Flowcharts and testing.
Autumn 2	System Architecture / Memory	Students look into how components work within a computer.
Spring 1	Networks / System Security Issues	Students learn what networks exist and how they are put together along with system security.
Spring 2	Data Representation	Advancing from year 9 students learn hexadecimal.
Summer 1	Translators and IDE's	Students recap Python using an IDE.
Summer 2	Computational Logic	Students learn about computing laws and how logic gates are used within a computer.

Year 11 Computing

Term	Spec	Focus:
Autumn 1	Computational Thinking.	Students look in more depth at Algorithms, Flowcharts and testing.
Autumn 2	System Architecture / Memory	Students look in more depth at how components work within a computer.
Spring 1	Networks / System Security Issues	Students look in more depth at networks and how they are put together along with system security.
Spring 2	Data Representation	Students practically use data representation.
Summer 1	Translators and IDE's	Students increase their programming knowledge with SQL.
Summer 2	Computational Logic	Students look in more depth at about computing laws and how logic gates are used within a computer.

Creative iMedia

If you like creating things on the computer, then Creative iMedia is the course you might choose.

It has 4 units, 3 of them are based on your coursework in making and changing images using Photoshop/Illustrator, making webpages using Dreamweaver/Serif Web Plus. One unit has a written exam to do, which is done in January of Year 10, but may be retaken if needed. All the 4 units are worth 25% of the overall grade each.

By taking this option you will be taking a Level 2 VCF course (not a BTEC) from OCR.
You will gain grades equivalent to GCSE grades A* - F on successful completion of the course.

- R081: Pre-production skills (Year 10) This is a compulsory unit, based on all aspects of planning projects from Mood boards to Gantt Charts. It will also develop their understanding of the client brief, time frames, deadlines and preparation techniques that form part of the planning and creation process. For the assessment of this unit, the students will be entered for an exam in January of Year 10, which may be retaken if needed in June.
- R082: Creating digital graphics (Year 10) This is also a compulsory unit, in which Photoshop is used to edit photographs and images to suit given situations. For the assessment of this unit, students will complete a 10 hour controlled assessment which is marked by the teaching staff and externally moderated. This moderation can take place in June of Year 10 or November of Year 11.
- R085: Creating a multiple website (Year 11) In this unit, Students will have the opportunity to understand the basics of creating multiple websites through this unit. They will also be able to demonstrate their creativity by combining components to create a functional, intuitive and aesthetically pleasing website using Dreamweaver or Web Plus. For the assessment of this unit students will complete a 10 hour controlled assessment which is marked by the teaching staff and externally moderated. This moderation can take place in January or June of Year 11.
- R084: Digital Comic (Year 11) Through this unit, students will study comics and then create a comic based upon a brief, students will complete a 10 hour controlled assessment which is marked by the teaching staff and externally moderated. This moderation will take place in the June of Year 11.

Topics covered at Key Stage 5:

OCR Cambridge Technical - Introductory Diploma in Application Development

The qualifications aim to develop students' knowledge, understanding and skills of the principles of IT and Global Information Systems. Students will gain an insight into the IT sector as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, and the importance of legal and security considerations. Designed in collaboration with experts spanning the breadth of the sector such as universities, employers and industry specialists, the Level 3 Cambridge Technicals in IT focus on the requirements that today's universities and employers demand.

The Basics

Exam Board Details: OCR
Assessment Method: AS: Two exam units.
A2: Three coursework units.

Topics covered in each unit:

AS Unit 1 – Fundamentals of IT
AS Unit 2 – Global Information
A2 Unit 6 - Application Design
A2 Unit 12 - Mobile Technology
A2 Unit 13 - Social Media and Digital Marketing

The Benefits

- Create knowledge and understanding of information systems within a range of organisations.
- Build an understanding of the main principles of solving problems using ICT.
- Develop project management skills and an understanding of the need to work with others.

For further details, please click on the resources link.
http://www.ocr.org.uk/qualifications/as-a-level-gce-ict-applied-h115-h315-h515-h715/

The Detail

	Topic	Key issues	Assessment Method
YEAR 12 – AS LEVEL	Unit 1 – Fundamentals of IT	EXAM UNIT A sound understanding of IT technologies and practices is essential for IT professionals. Information learnt in this unit will create a solid foundation in the fundamentals of hardware, networks, software, the ethical use of computers and how businesses use IT. After completing this unit, the knowledge, skills and understanding you have developed will underpin your study for the additional units.	EXTERNAL EXAMINATION *25%*
	Unit 2 – Global Information	EXAM UNIT This unit will provide you with a greater understanding of how organisations use information sources both internally and externally and the types of information you will encounter. The skills gained by completing this unit will give you knowledge of the functionality of information and how data is stored and processed by organisations. You will also learn about how individuals use information of various types. This unit will help you to understand the legislation and regulation governing information which flows in to and out of an organisation and the constraints and limitations that apply to it. You will also learn the relationship between data and Information.	EXTERNAL EXAMINATION *25%*

YEAR 13 – A2 LEVEL	Unit 6 - Application Design	COURSEWORK UNIT In this unit you will explore potential ideas for a new application and develop the fundamental design for it. You will then develop the designs for an application and how users will interact with it. The application that you will design could be for any sector and for any purpose. You will have the opportunity to present your ideas, prototype them and gain feedback before refining your design. Besides the technical knowledge that you will gain about designing an application, you will also learn key transferable skills about liaising with clients, questioning people effectively to gain the information you need to develop successful designs, and presenting your ideas to an audience and getting feedback from them.	INTERNALLY MARKED AND MODERATED COURSEWORK Portfolio of Evidence *16.6% of whole A Level*
	Unit 9 – Software Development	COURSEWORK UNIT The aim of this unit is to broaden your knowledge and understanding the software development cycle and how it is used within businesses. This unit is as much about new technologies as it is about promoting critical analysis of existing situations and proposing better solutions.	INTERNALLY MARKED AND MODERATED COURSEWORK Portfolio of Evidence *16.6% of whole A Level*
	Unit 13 - Social Media and Digital Marketing	COURSEWORK UNIT This unit looks at digital marketing as a concept and then offers you the opportunity to explore the possible impacts, both positive and negative, that may be generated by the use of social media as a tool.	INTERNALLY MARKED AND MODERATED COURSEWORK Portfolio of Evidence *16.6% of whole A Level*