

Curriculum Overview

Subject: Computer Science

Year Group: 10



Students will begin by understanding and applying the principles of Computer Science including abstraction, decomposition, logic, and algorithms through practical experience of solving problems, including designing, writing, and debugging programs.

They will then focus on topics for GCSE paper 1. Here they will develop their knowledge of the components that make up digital systems and how they communicate with one another and with other systems. They will also understand the impacts of digital technology to the individual and to wider society.

TERM 1	TERM 2	TERM 3
KNOWLEDGE/SKILLS Programming concepts: <ul style="list-style-type: none"> • Sequencing • Selection • Iteration To create: <ul style="list-style-type: none"> • Efficient programs • Modular designs • Search for and manipulate data 	KNOWLEDGE/SKILLS 1.8 Environmental, Ethical, Cultural and Legal 1.1 Systems Architecture 1.2 Memory 1.3 Storage	KNOWLEDGE/SKILLS 1.4 Wired & Wireless Networks 1.5 Network topologies, protocols and layers 1.6 System Security 1.7 System Software
KEY ASSESSMENTS Half term 1: Intro to programming assessment Half term 2: Iteration and Lists assessment	KEY ASSESSMENTS Half term 1: 1.8, 1.1, unit assessment Half term 2: 1.2, 1.3, unit assessment	KEY ASSESSMENTS Half term 1: 1.4, 1.5, unit assessment Half term 2: 1.6, 1.7, unit assessment

Extended reading suggestions and external resources:

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OCR J276 Specification - [OCR GCSE Computer Science J276 Specification](#)

BBC Bitesize KS4 - [GCSE Computer Science - OCR - BBC Bitesize](#)

Craig n Dave Videos - [Craig'n'Dave - YouTube](#)

Curriculum Overview

Subject: Games Development

Year Group: 10



Over the two years' students must complete four units which are set by the exam board. OCR have set assignments which we have to follow. Students work their way through the tasks and generally task 1 is research, task 2 in planning, task 3 is the major part where students are asked to do a practical task. Task 4 is normally the review element where they evaluate what they have done in task 3. Unit R081 is the mandatory unit and is an externally based assessment in the form of an examination, usually an hour and a quarter in length. The course we plan is to be delivered over 2 years, 2 assignments in year 1 and 2 in year 2. Students are assessed, internally moderated and then moderated externally by a moderator from OCR. The course is graded at Pass, Merit and Distinction.

TERM 1	TERM 2	TERM 3
<p>KNOWLEDGE/SKILLS Unit 91</p> <ul style="list-style-type: none"> investigate how digital games and game platforms have evolved over time compare the capabilities and limitations of different gaming platforms investigate the characteristics of digital games across different genres explain the game objectives from different digital games. describe how the client's requirements will be met in the game idea identify what criteria must be met for the game to be successful identify the target audience and how the game will appeal to them. choose one idea and give reasons for your choice identify the design constraints and opportunities for the new game create a proposal for your digital game with explanations of the game components create visualisations for the game. 	<p>KNOWLEDGE/SKILLS Unit 91</p> <ul style="list-style-type: none"> review how the components, narratives and game play work together to meet the client's requirements explain how and where the game idea could be improved describe areas for further development, giving reasons for your choices <p>Unit 82</p> <ul style="list-style-type: none"> investigate how and why digital graphics are used in a range of sectors identify the purpose of digital graphics. consider the client's requirements and how these are specified 	<p>KNOWLEDGE/SKILLS Unit 82</p> <ul style="list-style-type: none"> consider the target audience for the digital graphic decide on a visual style and composition of the digital graphic obtain the assets required for the digital graphic re-purpose and store the assets to ensure their technical compatibility with the intended digital graphic. review how well the digital graphic meets the client's requirements identify how the digital graphic could be improved describe areas for further development, giving reasons for your choices.
<p>KEY ASSESSMENTS</p>	<p>KEY ASSESSMENTS</p>	<p>KEY ASSESSMENTS</p>

Half term 1: Written portfolio, externally set by exam board, assessed internally.

Half term 2: Written portfolio, externally set by exam board, assessed internally.

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Half term 2: Written portfolio, externally set by exam board, assessed internally.

Extended reading suggestions and external resources:

<https://www.ocr.org.uk/qualifications/cambridge-nationals/creative-imedia-level-1-2-award-certificate-j807-j817/>