

GCSE AQA Computer Science

AUTUMN TERM

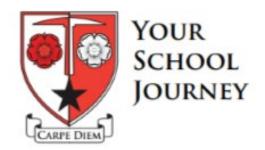
- **Data Representation** Students will learn about how the computer represents/displays data. They will understand the importance of Binary in machines, and look in detail at how images/sound/text are portrayed etc. along with various Binary calculations (Conversions/Additions/Multiplications/Divisions)
- Programming/Algorithms- Students will learn how to program all of the skills required for the course. It will
 build on their knowledge of Year 9 programming and will take on practice of challenging scenarios, where
 Algorithmic and problem solving skills will be needed in order to be successful. They also look at Pseudocode
 and Flowcharts to learn more about designing/structuring programs. This will set them up for the end of
 Year Programming Project which is mandatory.

SPRING TERM

- Computer Systems/Algorithms- Students will learn about how the various components inside a computer work from the CPU to main memory and secondary storage (Hard Drives etc). They will also look at the fundamental operation of the computer (Fetch Decode Execute Cycle) and how we can analyse the performance of a device. There will be one programming/algorithm lesson per week during this period too.
- Networking and Computer Ethics/Algorithms- Students will learn what the different elements of the Internet mean, and how data is sent and received. We look at how the internet has rules (protocols) and how there are various levels (layers) that complete different tasks that combine to make the internet work. There will be one programming/algorithm lesson a week during this period too.
- Relational databases and structure query language (SQL)- Students will learn what a relational database is and how they are created. Students will look at how relational database facilitate the elimination of data inconsistencies and data redundancy. Students will learn how to use SQL to retrieve and insert data.

SUMMER TERM

- **Revision and exam techniques** Students will recap all topics and complete exam style questions to prepare them for their Paper 1 and Paper 2 mock exams.
- **Programming Project** Students will complete their controlled assessment in an effort to get it all finished before the start of Year 11. Students will start this after the Easter break. This is the development of a computer program along with the computer programming code itself which has been designed, written and tested by a student to solve a problem. Students will produce an original report outlining this development.



BTEC Business Enterprise

AUTUMN TERM

Exploring Enterprise-

Students will study:

- · The entrepreneur
- · Enterprise organisations
- · Types of enterprise
- · Enterprise attributes

Students are provided with the opportunity to develop sector-specific knowledge and skills in a practical learning environment. The main focus is on the knowledge and skills required to research, plan, pitch and review an enterprise idea that includes:

- Development of key skills that prove aptitude in planning an enterprise activity, including market research, planning, carrying out financial transactions, communication and problem solving.
- Knowledge that underpins effective use of skills, such as the features and characteristics of enterprises and entrepreneurs, and the internal and external factors that can affect the performance of an enterprise.
- Attitudes and ways of working that are considered most important for enterprise, including monitoring and reflecting on performance of an enterprise idea and own use of skills.

SPRING TERM

Types of Market Research-

Students will study:

- $\cdot \, \mathsf{Sampling}$
- $\cdot \ \text{Focus groups} \\$
- · Competitor analysis
- · Unique Selling Points
- · SWAT analysis
- · Key Performance Indicators

Students are able to complement the learning of other GCSE programmes and apply their knowledge in practical ways through the activities that enable development of personal and professional growth.

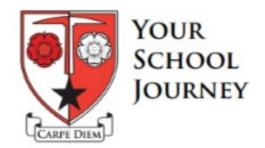
SUMMER TERM

Planning and Pitching for Enterprise-

Students will Study:

- · Start-Up Costs
- · Financial aims
- · Cash Flow
- $\cdot \, \mathsf{Target} \, \, \mathsf{Customer} \, \, \mathsf{profile} \, \,$
- · The Pitch

Working in parallel with the Peter Jones Foundation this component is designed to relate the application of concepts underpinning the business sector through real tasks and activities. All students pitch their individual business ideas and the most viable are then selected and provided with the start-up costs to enable the launch of the enterprise.



GCSE Edexcel Business

AUTUMN TERM

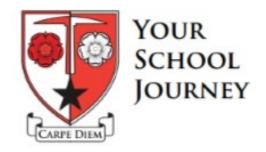
- **Topic 1.1 Enterprise and entrepreneurship** Students will be introduced to the dynamic nature of business in relation to how and why business ideas come about. They also explore the impact of risk and reward on business activity and the role of entrepreneurship. Students will be assessed through an end of term assessment.
- **Topic 1.2 Spotting a business opportunity** Students will learn how new and small businesses identify opportunities through understanding customer needs and conducting market research. They will also focus on understanding the competition. Students will be assessed through an end of term assessment.
- **Topic 1.3 Putting a business idea into practice** Students will learn how a business idea is developed through identifying aims and objectives and concentrating on the financial aspects.

SPRING TERM

- **Topic 1.4 Making the business effective** Students will learn about a range of factors that impact on the success of the business, including location, the marketing mix and the business plan. Students will be assessed through an end of term assessment.
- Topic 1.5 Understanding external influences on business Students will be introduced to a range of factors, many of which are outside of the immediate control of the business, such as stakeholders, technology, legislation and the economy. Students will explore how businesses respond to these influences. Students will be assessed through an end of term assessment.
- **Revision and exam techniques** Students will recap all topics and complete exam style questions to prepare them for their exam in June.
- **Tutor 4 U trip** Students will have the opportunity to attend a exam grade booster session which will support students with exam technique.

SUMMER TERM

- Revision and exam techniques— Students will continue to recap all topics and complete exam style questions to prepare for their mock exams and final examinations in year 11. Students will be assessed at the end of the term during their mock examination.
- Numeracy skills— Students will recap and learn all the business calculations required for the qualification.



GCSE OCR Creative

AUTUMN TERM

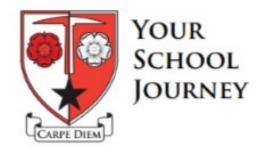
• RO81– Pre– Production Skills (Exam unit)- Students will recap all topics and complete exam style questions to prepare them for their exam.

SPRING TERM

- R082- Creating Digital Graphics (Controlled Assessment skills)-This unit builds on unit R081 and learners will be able to apply the skills, knowledge and understanding gained in that unit and vice versa. The aim of this unit is for learners to understand the basics of digital graphics editing for the creative and digital media sector. They will learn where and why digital graphics are used and what techniques are involved in their creation. This unit will develop learners' understanding of the client brief, time frames, deadlines and preparation techniques as part of the planning and creation process.
- **R082– Controlled Assessment-** All students will complete their controlled assessment. The controlled assessment will be marked by their teacher and externally moderated.

SUMMER TERM

- R087- Creating Interactive Multimedia Products (Controlled Assessment skills)- This unit builds on units
 R081 and R082 and learners will be able to apply the skills, knowledge and understanding gained in those
 units. This unit will enable learners to understand the basics of interactive multimedia products for the
 creative and digital media sector. They will learn where and why interactive multimedia is used and what
 features are needed for a given purpose. It will enable them to interpret a client brief, and to use time
 frames, deadlines and preparation techniques as part of the planning and creation process when creating an
 interactive multimedia product.
- **R087– Controlled Assessment-** All students will complete their controlled assessment. The controlled assessment will be marked by their teacher and externally moderated.
- **R081- Revision and exam techniques-** Students will recap all topics and complete exam style questions to prepare them for their exam.



GCSE OCR Information Technology

AUTUMN TERM

R012- Understanding tools, techniques, methods and processes for technological solutions

- Learning Outcome 1: Understand the tools and techniques used to initiate and plan solutions-Students will learn about the Project Life Cycle. Students will learn about the different phases, input and outputs and planning tools. Students will be assessed through an end of term assessment.
- Learning Outcome 2: To be able to initiate and plan a solution to meet an identified need-Students will learn how to plan a project. Students will learn about client requirement, constraints, mitigating risks, planning documentation and testing. Students will be assessed through an end of term assessment.

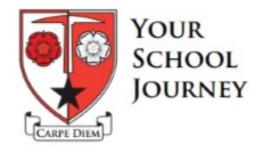
SPRING TERM

R012- Understanding tools, techniques, methods and processes for technological solutions

- Learning Outcome 3: Understand how data and information can be collected, stored and used-Students will learn about how data is collected and stored. Students will look at data, information, data collection methods and storage methods. Students will be assessed through an end of term assessment.
- Learning Outcome 4: Understand the factors to be considered when collecting and processing data and storing data and information- Students will learn what the different threats are to data, the impacts of cyber-attacks, how to prevent cyber-attacks and IT legalisation. Students will be assessed through an end of term assessment.

SUMMER TERM

- **R012 Revision and exam techniques** Students will recap all topics and complete exam style questions to prepare them for their exam.
- R013 Practical skills— Students will learn the required skills to complete their controlled assessment. Students will develop their spreadsheet, database, word processing, desktop publishing, image editing and presentation skills.



GCSE Edexcel Business

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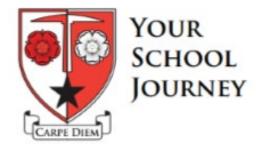
- **Topic 2.1 Growing the business** Students are introduced to methods of growth and how and why business aims and objectives change as businesses evolve. The impact of globalisation and the ethical and environmental questions facing businesses are explored. In this unit student will be assessed through an end of unit written assessment.
- **Topic 2.2 Making marketing decisions** Students will learn how each element of the marketing mix is managed and used to inform and make business decisions in a competitive marketplace. In this unit students will be assessed through an end of unit written assessment.
- **Topic 2.3 Making operational decisions** Students will learn about meeting customer needs through the design, supply, quality and sales decisions a business makes. In this unit students will be assessed through an end of unit written assessment.
- Students will also be assessed through a mock examination.

SPRING TERM

- **Topic 2.4 Making financial decisions** Students will learn the tools a business has to support financial decision making, including ratio analysis and the use and limitation of a range of financial information. In this unit students will be assessed through an end of unit written assessment.
- **Topic 2.5 Making human resource decisions** Students will learn what growing a business means and what decisions are made relating to organisational structure, recruitment, training and motivation. In this unit students will be assessed through an end of unit written assessment.
- **Revision and exam techniques** Students will recap all topics and complete exam style questions to prepare them for their exam in June.
- Tutor 4 U trip— Students will have the opportunity to attend a exam grade booster session which will support students with exam technique.

SUMMER TERM

Revision and exam techniques— Students will continue to recap all topics and complete exam style
questions to prepare them for their exam in June.



BTEC Business Enterprise

AUTUMN TERM

Promotion and Finance for Enterprise-

Students are able to:

- Demonstrate knowledge and understanding of elements of promotion, marketing and finance
- Interpret and use promotional and financial information in relation to a given enterprise
- Make connections between different factors influencing a given enterprise
- Advise and provide recommendations to a given enterprise on ways to improve performance

The externally assessed component (Component 3) is designed to be synoptic and therefore, draw together all the knowledge learned throughout the course. External assessment is available in February or May providing flexibility to choose the option best suited for learners.

SPRING TERM

Final Assessments and Grading-

Full grading:

The qualification goes from Level 1 pass to Level 2 Distinction* to ensure all students' achievements are recognised. Students need to achieve a L1 Pass or above to achieve the qualification

Qualification grade point thresholds:

Level 2 Distinction*	114 points
Level 2 Distinction	105 points
Level 2 Merit	95 points
Level 2 Pass	72 points
Level 1 Distinction	58 points
Level 1 Merit	44 points
Level 1 Pass	30 points



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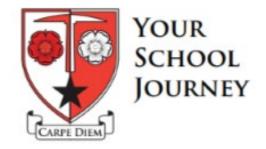
- Data Representation/Computer Systems (Paper 2)- Students will revise/go over both topics. They will look at how the computer represents/displays data. They will recap the importance of Binary in machines, and look in detail at how images/sound/text are portrayed etc. In addition, during this period of Year 11, they will rediscover how the various components inside a computer work from the CPU to main memory and secondary storage (Hard Drives etc) too plus more.
- Programming/Algorithms (Paper 1)- Students will be given programming challenges and tasks to further
 strengthen the skills gained from Year 10. There will be extra impetus on Paper 1 during this stage of the
 Year to get the students back into the logic required to complete this paper. There will be a range/multitude
 of Paper 1 practice questions given to test the students thinking and problem solving abilities.

SPRING TERM

- **Networking/Ethics + Paper 2 Revision** Students will learn what the different elements of the Internet mean, and how data is sent and received. We look at how the internet has rules (protocols) and how there are various levels (layers) that complete different tasks that combine to make the internet work. Students will also discuss and debate their arguments for various computer ethics topics. This will increase the students chances of answering the Long Answer Questions that are typical in a Paper 2 exam. There will also be reoccurring revision lessons to go over the other topics that were done in the Autumn Term.
- Programming/Algorithms (Paper 1)- At this stage of Year 11, the students will be asked to independently
 work out some of the more challenging exam style questions to prepare them in the best possible way.
 There will be tests and opportunities to complete challenges in time allocated spaces to improve their
 pressure skills also. We will look at theory aspects to Paper 1 here too, in areas such as LOW/HIGH level
 languages and program translators.

SUMMER TERM

• **Revision and exam techniques**— Students will recap all topics and complete exam style questions to prepare them for their Paper 1 and Paper 2 exams.



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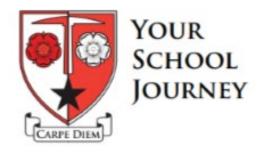
- R013- Developing technological solutions- This unit focuses on how effectively learners use their skills when developing a technological solution. Students will be given a project to develop a technological solution that processes data and communicates information. Students will follow the project life cycle phases of initiation/planning, execution, communication and evaluation, demonstrating the practical skills they have acquired such as carrying out a SWOT analysis, creating GANTT charts, developing online surveys, and/or presenting data through web-based technologies; keeping their project on track through on-going, iterative reviews. Students will use different hardware and software technologies to create an integrated technological solution for data processing and communication of information.
- Students will meet the learning outcomes by completing a practice controlled assessment with guidance from their teacher. Students will be assessed using the assessment criteria.
- **R012 Revision and exam techniques** Some students will recap all topics and complete exam style questions to prepare them for their exam in January or June.
- **R013 Controlled assessment** All students will begin their controlled assessment. The controlled assessment will be marked by their teacher and externally moderated.

SPRING TERM

• **R013 Controlled assessment**— All students will complete their controlled assessment. The controlled assessment will be marked by their teacher and externally moderated.

SUMMER TERM

R012 Revision and exam techniques— Some students will recap all topics and complete exam style
questions to prepare them for their exam in June.



GCSE OCR Creative

AUTUMN TERM

RO81- Pre- Production Skills (Exam unit)
 Students will recap all topics and complete exam style questions to prepare them for their exam in January.

SPRING TERM

- R085- Creating a Multipage website (Controlled Assessment skills)- This unit builds on units R081 and R082 and learners will be able to apply skills, knowledge and understanding gained in those units. This unit will enable learners to understand the basics of creating multipage websites. It will enable learners to demonstrate their creativity by combining components to create a functional, intuitive and aesthetically pleasing website. It will allow them to interpret a client brief and to use planning and preparation techniques when developing a multipage website.
- R085- Controlled assessment— All students will complete their controlled assessment. The
 controlled assessment will be marked by their teacher and externally moderated.

SUMMER TERM

Students will complete any outstanding coursework or revision