Curriculum Intent

"The collection and communication of data and storing of data and information happens all around us. Technology underpins how it's collected and communicated nearly all of the time. It can be seen in all walks of life, from a wearable fitness tracker recording how many steps you have taken, your mobile phone provider recording your usage to create your bill or an online retailer being able to target you with specific promotions based on your purchase history. Knowing how and why data is gathered and being able to turn raw data into something meaningful is essential as the learner moves through education and into employment. To be able to do this the learner will need to have the confidence to use a range of information technology that is currently available, as well as being adaptable and resilient enough to deal with the rapid advances. " OCR

What will this qualification teach the learner?

"This qualification will teach the learner what different technologies could be used, why they should use them and how to make best use of them, to gather, store, manipulate and present data; this is known as data management. They will learn about tools and techniques for use in different digital hardware and software technologies, and how these can be integrated to create digital solutions to manage and communicate data and information. They will also be taught what data and information are and the legal, ethical and moral considerations when using technology to gather, store and present data and information, and how to mitigate the risks of cyber-attacks. Through this qualification they will be able to select and use the most appropriate technology safely and effectively, to complete a data management task, such as a cable TV provider monitoring customers' viewing to make recommendations for additional packages in the customer's subscription. They will also learn to follow a project life cycle of initiation, planning, execution and evaluation to complete a data management task and use their skills, knowledge and understanding of technology to complete each of the phases of the project life cycle." OCR

Curriculum Implementation

We cover two strands in Information Technology, Practical skills and Theory in order to prepare the students for the NEA which accounts for 50% and the theory exam which also accounts for 50%.

For theory, we aim to cover all theoretical units in year 10 and plan to revisit them in year 11 with a larger focus on past paper questions in readiness for the exam. For the practical strand, we focus on building up the skills needed to allow them to attempt the NEA which begins in the final term in year 10 and runs up to Christmas in year 11.

Theory strand:

Year	Hours per week	Term	Content	Rationale
10	1	Autumn 1 & 2	**Learning Outcome 1: Understand the tools and techniques that can be used to initiate and plan solutions** Phases of the project life cycle Initial project considerations Planning tools **Learning Outcome 2: To be able to initiate and plan a solution to meet an identified need** Analysing requirements, SWOT and SMART Risk mitigation Planning documentation Iterative testing	The NEA is structured to match the project life cycle and the project life cycle features heavily in the written exam applied to a business context. This initial theory is key to understanding how to approach the NEA and to plan so is an important starting point. Prior Knowledge to activate: Students are well used to working on iterative projects from lower down the school and will be able to link their prior working patterns to the project life cycle.
10	1	Spring term 1 & 2	**Learning Outcome 3: Understand how data and information can be collected, stored and used** What is data What is information Methods of collecting data Storage of data Big data	Again an area which always comes up in the exam, it is useful for students to be able to understand the different ways data can be collected and methods of storing including new methodologies such as the cloud. This also ties in with the NEA as students often need to produce data collection methods in a practical context. Prior Knowledge to activate: Data collection and methods of collecting and storing information have been looked at in year 9 particularly within the database unit.
10	1	Summer term 1	**Learning Outcome 4:** Understand the factors to be considered when collecting and processing data and	It is very useful for students to understand issues surrounding data collection and to make sure that they are aware of legislation and vulnerabilities and how these

			storing data/information Malware Social Engineering & Hacking Vulnerabilities that can be exploited Consequences of a Cyber security attack Prevention measures Legislation Reliability and Bias	vulnerabilities can be protected against. Students are required to consider this area in the exam and have to apply it to the NEA. Prior Knowledge to re-activate. Discussion of a number of issues surrounding computer misuse are covered within E Safety units at kS3 – particularly those surrounding social engineering and correct use of computers.
11	0	Autumn term 1 and 2	Revision of the topics listed above is carried out via weekly homework tasks with weekly tests on show my homework. Most class time in the run up to Christmas will be spent on the NEA, however some class time will be allocated to students to help them to prepare for the mock.	In the run up to Christmas the majority of the lessons will be spent on NEA or NEA related tasks. Because of this, students will be prepared for the mock via weekly homework which re-cover theory covered in year 10. There will be some class time spent towards the end of term 2 on mock preparation.
11	2	Spring term 1 & 2 Summer term 1	**MOCK EXAM** Revision tasks, working back through all of the theory with a focus on past papers and mark schemes	Students will have completed the NEA and our class focus returns to theory where students will work on past papers and mark schemes in class in order to fully prepare them for the final exam. We carefully analyse mock exam performance and use this to help direct the areas of focus.

Practical strand

Year	Hours per week	Term	Content	Rationale
10	2	Autumn 1 & 2 Sprint Term 1&2 Summer term 1	**Learning Outcome 5: To be able to import and manipulate data to develop a solution to meet an identified need** **Learning Outcome 6: Understand the different methods of processing data and presenting information** **Learning Outcome 7: To be able to select and present information in the development of the solution to meet an identified need** **Learning Outcome 8: To be able to iteratively review and evaluate the development of the solution** **For the above, skills are developed in the following packages:** Word processors Spreadsheet Databases Desktop publishing (DTP) Presentation software HTML	Students will work on a number of integrated practical projects to develop the required skills in each of word processing, spreadsheets, databases, desktop publishing (DTP) presentation software. Skills developed will be in line with those detailed in the specification. These skills are required for the exam but are also key skills needed for the NEA. Learning outcome 8 – evaluation, can be developed via each task as students evaluate what they have done and carry out iterative review processes. This is an important skill needed for the NEA. There is accompanying theory to go with some of these units outlined in the specification and this theory is required for the final exam. This will also be delivered as part of the practical lessons in the context of the work being produced. Prior Knowledge to re-activate: At KS3 a range of practical ICT skills have been developed: Year 7: Word processing, Presenting information, Spreadsheets, DTP, Web Authoring Year 8: Word processing, Presenting information, DTP Year 9: Word processing, presenting information, Databases, Spreadsheets.
	3	Summer term 2	**Working on the NEA** Initiation and Planning	NEA is released at the beginning of Summer term 2. At this point, students move across onto exam areas and will work on the first element: Initiation and planning with a view to having this complete by the end of year 10.

				This is important to alleviate completion pressure on the students in the run up to Christmas.
11	2	Autumn term 1& 2	**Working on the NEA** Import and manipulate Select and present Iteratively review	Completion of the NEA needs to be carried out prior to Christmas of year 11. Having carried out the planning elements at the end of year 10, students now need to carry out the practical and evaluative elements. It is expected that most students will have completed the bulk of this within term 1 and term 2 will be spent on finishing touches such as organisation of folders to meet with OCR requirements and making presentation of documents and integration work properly. Some time will be used at the end of the second term to revert to theory to help students prepare for the mock.

Assessment

As well as being assessed throughout the course on a range of practical activities and assessment of theory units throughout the course and more formally in year 10 and 11 mock exams, students will ultimately be assessed on two areas:

Assessments and Grading

Assessment structure

<table>
<tr><th>Entry code</th><th>Qualification title</th><th>GLH</th><th>Reference</th></tr>
<tr><td>J808</td><td>OCR Level 1/2 Cambridge National Certificate in Information Technologies</td><td>120</td><td>603/1311/0</td></tr>
<tr><td colspan="4">There are two units of assessment.

To claim the OCR Level 1/2 Cambridge National Certificate Information Technologies qualification, learners must complete both units of assessment.

Performance in both assessments will be underpinned by acquiring the knowledge, understanding and skills specified for the qualification through learning by doing. We encourage holistic delivery and require the synoptic application of skills, knowledge and understanding.</td></tr>
<tr><td colspan="4">Entry code R012± - Understanding tools, techniques, methods and processes for technological solutions</td></tr>
<tr><td colspan="2">• 1 hour 45 minutes written examination
• 80 marks (120 UMS)
• OCR-set and marked
• Exam assessment in June 2018 and then every January and June.</td><td colspan="2">This will directly assess the learning outcomes titled as ‘Understand’:

LO1: Understand the tools and techniques that can be used to initiate and plan solutions

LO3: Understand how data and information can be collected, stored and used

LO4: Understand the factors to be considered when collecting and processing data and storing data/information

LO6: Understand the different methods of processing data and presenting information.</td></tr>
<tr><td colspan="4">Entry code R013* - Developing technological solutions</td></tr>
<tr><td colspan="2">• Approximately 20 hours
• 80 marks (120 UMS)
• An assignment set by OCR, marked by teachers and moderated by OCR
• The assignment will include a context and set of tasks
• A new assignment will be released each series and published on the OCR website
• Assessment series in June 2018 and then in two series each year, January and June.</td><td colspan="2">This will directly assess the learning outcomes titled as ‘Be able to’:

LO2: To be able to initiate and plan a solution to meet an identified need

LO5: To be able to import and manipulate data to develop a solution to meet an identified need

LO7: To be able to select and present information in the development of the solution to meet an identified need

LO8: To be able to iteratively review and evaluate the development of the solution.</td></tr>
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Further Curriculum Support:

Course text: Cambridge National Level 1/2 Certificate in Information Technologies

Revision guide: My Revision Notes: Cambridge National Level 1/2 Certificate in Information Technologies

Past papers, specification and mark schemes are available on the exam board website: Information Technologies Level 1/2 Certificate - J808

Where next?

The skills, knowledge and understanding they will develop through this qualification are very relevant to both work and further study. They will support them in a range of subject areas by providing useful ICT skills to help with their other subjects and if they go on to sixth form and will also directly support them if they go on to study our Pearson level 3 BTEC in ICT. The course also provides skills which would support them in their progression into employment through Apprenticeships.