

KS4 OCR Cambridge Nationals: R013 Coursework scenario, Technology Faculty

Rationale and Context of Unit:	Core curriculum content:	Tier 2 & Tier 3 vocabulary explicitly taught:
<p>Students have completed the KS3 curriculum and have covered the following: Basic skills in Microsoft Office Coding (Scratch and Python) Logos (Graphic design) Multimedia (Video editing) Web design What make a computer (including HTML and binary) Risks and Implications of IT</p> <p>These units underpin many of the skills which are needed for the successful completion of the Information Technology qualification and were designed with this qualification being the end result of KS4.</p> <p>Students will have also completed R012 by this point which covers much of the theory (and more) needed to be put into practice in the coursework. The coursework is worth 50% of the qualification.</p> <p>Students will have practised the skills required in the previous 'preparation for coursework' unit. The coursework scenario is released in the Jan of year 11 and will be expected to be submitted in the June examinations series of year 11.</p>	<ul style="list-style-type: none"> • 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 and 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 <p>The above LOs are what we will focus on throughout this unit.</p> <p>Overall students will gain many skills which will help them in a vast range of employment areas.</p> <p>This will give students an in-depth knowledge of how to plan and carry out a project, how to meet a customer's needs to suit a particular purpose, how to import and manipulate data in spreadsheets and databases and how to review the entire process.</p>	<p>Client brief (T2) Objective (T2) Risk mitigation (T2) Asset log (T2) House style (T3) Erroneous data (T3) Extreme data (T3) Absolute cell referencing (T3) Delimiter (T2) Validation (T2) Verification (T2) Query (T2) Watermark (T2) Project life cycle (T2)</p> <p><i>NB. There will be a larger glossary available for this unit but the above words will be explicitly taught.</i></p>

Challenge and Support:	World wide learning/ links to 21 st century:	Cultural capital/ Industry/ Enrichment:
<p>Each lesson has EDSM descriptors and there are tasks in each lesson which target HAPs.</p> <p>There are lots of sections in the lesson powerpoints which will require reading out loud to practise literacy and oracy skills.</p> <p>Further reading links are given within the lesson. Student will have access to past submissions of coursework so they have a good understanding of what is needed to achieve their target grade.</p> <p>Students will be taught how to change the colours of documents. A list of key words/ word bank is available for every lesson with definitions.</p> <p>Tasks are chunked with step by step instructions and the lessons powerpoints are saved on the public area. Students who need to, can save a copy to their areas so they can refer back to it. They can print the document if needed and make notes (or do this electronically).</p> <p>Extra help guides are also available in both electronic and printed out formats for various pieces of software.</p> <p>Students are given plenty of time (a fortnight) to complete any homework tasks. They are encouraged to complete this at lunchtime or at homework club, giving them access to computers, if they do not have IT access at home.</p>	<p>Students will be given a 'real world' problem to solve.</p> <p>Eg: <i>Progress Cars is a new company which buys and sells second hand cars. It currently has a stock of 20 cars for sale but intends to increase this number over time.</i></p> <p><i>Progress Cars has been using a paper-based system but knows that it is important that this is replaced by an integrated IT system as the company continues to expand.</i></p> <p><i>Progress Cars customers will:</i></p> <ul style="list-style-type: none"> • <i>part exchange their car for the car that they want to buy;</i> or • <i>sell their car and not buy another one;</i> or • <i>buy a car without part exchanging a car.</i> <p>This gives them an opportunity to apply their IT skills to a real world issue in a business.</p>	<p>Project planning will have a wide variety of applications.</p> <p>Using a computer and having a good understanding of how to use Microsoft office will be useful in a range of jobs.</p> <p>'Real world' scenario which links to using IT in business. (Each brief is different).</p>

<p>Lessons will be further differentiated in accordance with SEND and PP passports. Seating plans will be annotated based on passports.</p>		
<p>Historical, Social, Moral, Spiritual, Cultural context:</p>	<p>Cross curricular links/ literacy/numeracy:</p>	<p>Common misconceptions:</p>
<p>Teamwork to solve scenarios.</p> <p>Thinking about using IT to solve real world problems.</p>	<p>This unit provides opportunities for extended writing in the review section.</p> <p>Discussing topics / debating which develops oracy skills.</p> <p>When inputting data into spreadsheets and thinking about different types of data, this will have a numeracy link.</p> <p>Relates to technology in terms of planning and carrying out a project and then reviewing it.</p>	<p>We will look at:</p> <p>‘The data is encrypted so it is safe!’</p> <p>How to interpret a solution from a client’s stated needs.</p> <p>How spreadsheets and databases can calculate and carry out the maths elements. Students seem to associate data and spreadsheets with being ‘complicated’ but spreadsheets can generate many of the mathematical answers if the formula is set up correctly.</p>

Assessment timeline:

- Knowledge and skills will be looked at in all lessons.
- Work must be stored on locked accounts. Students are not allowed to access them outside of lessons.
- Data / work from KS3, the first unit R012 and the 'mock' coursework unit will be used to assess students' strengths and weaknesses.
- Frequent testing of key words and their definitions will happen during class.
- EDSM descriptors for every lesson outline criteria.
- Exam board marking criteria will be used when marking coursework pieces.
- Models / WAGOLs provided by teacher where needed.
- Feedback 4 will NOT be given on any piece of work submitted as per exam board guidelines. Whole class feedback based around misunderstandings can be given to students to improve work.
- Literacy feedback will be given in line with school policy.

Home learning

- Activities centred around using key words and definitions will form part of home learning.
- Any piece of work which is part of the coursework brief CANNOT be taken home or accessed outside of lesson time, as per exam board policy.
- Feedback 4 will be given on specified pieces of HMK where possible.
- Scholarly reading will be set when relevant to the topic being studied.

Feedback

- Feedback 4 will NOT be given on any piece of work submitted as per exam board guidelines. Whole class feedback based around misunderstandings can be given to students to improve work.
- Feedback will also be in the form of peer and self-assessment in class when going through pieces of coursework using exam board criteria and whole class feedback and teaching based on any misunderstanding which may occur throughout the unit.
- Coursework will be marked in accordance with exam board criteria and grades given as per exam board grades / boundaries. Students will be given their final feedback / grade at the end of the course before submission.

Length of unit (duration indicated in lessons)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Half term 3 (y11): LO2: To be able to initiate and plan a solution to meet an identified need
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Half term 4 (y11): LO5: To be able to import and manipulate data to develop a solution to meet and identified need
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Half term 5 (y11): 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
Unit: R013 Coursework scenario															

This unit will begin in Jan of y11 and finish at the June examination series when coursework is submitted