

# Year 10

# Curriculum Overview Half Term 3

#### Dear Parent/Carer,

In the following booklet you should find an overview of what your child will be studying this half term in school. We've included key details on what they will be looking at in each subject, how they'll be assessed and what they might do to further develop their understanding. The aim is for this to make it easier for you to work with the school supporting your child with their work.

All lessons last for one hour. In Year 10, students study the following:

- English and Maths four lessons per week per subject
- Science two lessons per week per Science subject (Biology, Chemistry and Physics)
- Three 'Options' three lessons per week per subject
- Religious Education one lesson per week
- 'Core' PE one lesson per week

The information for each subject is categorised as follows:

**Topics / tasks**: This is the overview of the topics Year 9 students will be covering this half term.

Content and skills: This explains what areas students will be looking at, and the skills they will be

developing during the half term.

**Assessment**: This explains how students will be assessed on their understanding of this topic.

**Stretch and challenge:** This gives suggestions of how students can explore this area in more detail if they wish.

#### **Exam Boards**

Please use the table if you wish to know which exam board the school uses for each qualification.

Click on the name of a subject to be taken directly to that page.

Subject	Awarding Body	Subject	Awarding Body	Subject	Awarding Body
<u>Art</u>	AQA	Geography	AQA	Physical Education, GCSE	AQA
<b>Business Studies</b>	OCR	German	AQA	Religious Education	Eduqas
Computer Science	OCR	Health & Social Care	Edexcel	Science: Biology	Edexcel
<u>Creative iMedia</u>	OCR	<u>History</u>	AQA	Science: Chemistry	Edexcel
Design Technology	AQA	<u>Latin</u>	Eduqas	Science: Physics	Edexcel
<u>Drama</u>	AQA	<u>Mandarin</u>	AQA	<u>Spanish</u>	AQA
<u>English</u>	AQA	<u>Maths</u>	AQA	<u>Textiles</u>	AQA
<u>Engineering</u>	AQA	Music	Edexcel	Vocational Construction	WJEC
Food Preparation and Nutrition	Eduqas	Photography	AQA	Vocational Engineering	WJEC
French	AQA	Physical Education, BTEC	Edexcel		

#### Art

Topics / tasks:	Component One- personal projects
Content and skills:	Students will continue to develop their own personal projects, investigating the work of other artists, experimenting with materials and processes, exploring a wide range of references as part of developing their ideas. Working in sketchbooks and creating live outcomes will demonstrate the student's level of skill and knowledge. The more practice and effort made by the student, the greater the progress. By viewing the development of new sketchbooks pages, it is possible to monitor levels of progress at home.
Assessment:	Pupils work will receive developmental comments to act upon, either in improving an existing piece of work, or areas to develop in the next outcome. This term, pupils will begin to spend more time assessing their own work and work by their peers. Most of the assessment is verbal feedback in lessons, with written comments provided for main outcomes on MS teams.
Stretch and challenge:	Students are encouraged to work very independently and take creative risks. By looking at a wide range of artwork, students can broaden their knowledge, but also their own ideas. Looking at major art museum websites and searching for artists related to their theme/title, will enable students to expand and refine their ideas.

#### **Business Studies**

Topics / tasks:	Students will complete the following topics this term:  2.3 Market segmentation  Y10 – Mini Mock – cover work done for Unit 1 & 2  2.4 The marketing mix (4 P's); 2.4 Media in marketing (social media); 2.4 Marketing Mix test  3.1 The role of human resources - The purpose of human resources within business  3.2 Organisational structures and different ways of working
Content and skills:	<ul> <li>Be able to discuss:</li> <li>How and why we segment a market (for marketing purposes)</li> <li>What the 4 P's are and why they are important</li> <li>The use (and rise) of social media advertising (among certain brands)</li> <li>The purpose of human resources within business (and its function)</li> <li>Organisational structures and different ways of working (and the impact on the business, employee and stakeholders)</li> <li>Data:</li> <li>Use and analyse graphical data and statistics</li> <li>Analyse information from a given scenario. Use key information when compiling an answer (application)</li> <li>Interpersonal skills:</li> <li>Collaborative working, ideas, business and presenting.</li> </ul>
Assessment:	Range of exam questions, classwork, homework; Q&A in lessons.  Marketing test (50 marks)  Topic tests (at end of each unit).  Essay style question (at the end of the unit).  Use of key terms & application assessed.
Stretch and challenge:	<ul> <li>The Secret Behind Coca-Cola Marketing Strategy: <a href="www.youtube.com/watch?v=XhMVWzVXNNk">www.youtube.com/watch?v=XhMVWzVXNNk</a></li> <li>Marketing trends: <a href="www.youtube.com/watch?v=huU_0WYO5Z8">www.youtube.com/watch?v=huU_0WYO5Z8</a></li> <li>4 P's research: <a href="meilpatel.com/blog/4-ps-of-marketing/">meilpatel.com/blog/4-ps-of-marketing/</a></li> <li>BBC Bitesize - Business GCSE: <a href="www.bbc.co.uk/bitesize/examspecs/zv8gvk7">www.bbc.co.uk/bitesize/examspecs/zv8gvk7</a></li> <li>SENECA: <a href="www.senecalearning.com/">www.senecalearning.com/</a></li> <li>Research - BBC Business: <a href="www.bbc.co.uk/news/business">www.bbc.co.uk/news/business</a> - Identify potential marketing opportunities / drawbacks based on today's news (opportunity / threat)</li> </ul>

#### **Computer Science**

Topics / tasks:	Python Programming Fundamentals (File Handling and Challenges) Operating Systems and Utility Software (including System Software) System Security (Identification and Prevention techniques) Searching and Sorting Algorithms (Binary and Linear Search)
Content and skills:	Students will apply file handling routines to read and write to/from a text file Students will use what they have learnt in Python to tackle a series of Programming Challenges Students will identify the risks associated when using computers and the software used to tackle these risks Students will investigate the steps of two algorithms used to search the contents of a list
Assessment:	Assessment on System Security Security and Sorting Algorithms /27 Programming Challenge (evidence is assessed, 5 tasks in total)
Stretch and challenge:	Learn the steps used by anti-virus software to identify new threats  Learn how an Operating System manages the regular tasks of a computer (learn the different methods of memory management)  Continue to test your programming ability using Project Euler: projecteuler.net/

#### **Creative iMedia**

Topics / tasks:	R086 – Creating digital animations coursework unit (25% of final grade)
Content and skills:	Coursework - LO3 - 4
	This unit builds on units R081 (theory) and learners will be able to apply the skills, knowledge and understanding gained in those units.
	Digital animation is used in a wide range of applications in the creative and digital media sector. Animation can enhance applications, and be used to entertain and inform the viewer. This unit enables learners to understand the basics of digital animation for the creative and digital media sector.
	Learners will be able to use animation software to create the animation and be able to store, export and review the final product.
	On completion of this unit, learners will understand different types of digital animation techniques, know where they are used, be able to plan and create a digital animation and test and review a completed animation against a specific brief.
	OCR 2020
Assessment:	Teacher assessed coursework for each section LO2 – 4 (LO1>2 complete). Work is then sent for external moderation (Spring series)
Stretch and challenge:	All coursework must be completed in class under teacher supervision – knowledge, understanding and technical skills can all be revised and practised outside of school – organisation and an in-depth understanding of the topic is key!
	Practice using Adobe Animate to refine your skills – this can be accessed outside of school via your <b>own</b> device.
	Learning materials: <a href="https://www.ocr.org.uk/qualifications/cambridge-nationals/creative-imedia-level-1-2-award-certificate-j807-j817/">https://www.ocr.org.uk/qualifications/cambridge-nationals/creative-imedia-level-1-2-award-certificate-j807-j817/</a>

#### **Design Technology**

Topics / tasks:	Specific theory content
Content and skills:	Student this half term will study their specialist area of wood, metals and polymers. The areas of focus will be:  • The uses of wood, metals and polymers  • Stock forms  • Shaping materials  • Shaping techniques  • Moulding and joining  • Treatments and finishes  After this theory work, students will begin working on a mock NEA (in preparation for the release of their real NEA).
Assessment:	Each section is recapped and tested in an examination question booklet. These are peer / teacher assessed. Students will also complete a mock exam that will test understanding of theory. This will be sat towards the end of term.
Stretch and challenge:	Students should consider exploring (researching and evidencing) the theory areas to extend their learning- <a href="www.Technologystudent.com">www.Technologystudent.com</a> is an excellent resource.  Students should be actively reviewing theory tasks to help consolidate learning.  Students should engage with the class team to access further opportunities for learning.

#### Drama

Topics / tasks:	Component 1: Written exam. Section B, Set Text: Reading and researching Noughts and Crosses.
Content and skills:	Continue to explore and understand the text from a design and performance perspective.  Learn and practice how to write responses for the different questions in the examination, describing and explaining acting and design choices for a given extract from the play.
Assessment:	Teacher marked practice questions on the set text.
Stretch and challenge:	Research text and contextual influences in more depth.

### **English**

Topics / tasks:	AQA GCSE English Language: Paper 1 Reading Fiction	AQA GCSE English Literature: 'Romeo and Juliet' William Shakespeare
Content and skills:	<ul> <li>Analysing the conventions of different genres of fiction.</li> <li>Understanding each of the four exam questions.</li> <li>Understanding which methods to use to answer each of the four exam questions.</li> <li>Revising descriptive language methods.</li> <li>Studying how writers structure narratives.</li> <li>Evaluating viewpoints and providing personal responses.</li> <li>Completing individual questions.</li> <li>Completing a full reading section of the exam.</li> </ul>	<ul> <li>Studying 'Romeo and Juliet'.</li> <li>Analysing the Shakespeare's use of language and structure.</li> <li>Considering the social and historical contexts of the play and how these influence the text.</li> <li>Analysing characters and themes both in extracts and across the whole play.</li> <li>Understanding how to answer an exam question.</li> <li>Learning key quotations from the play.</li> </ul>
Assessment:	Answering a full reading section of the exam	Writing exam responses on both characters and themes
Stretch and challenge:	<ul> <li>Reading fiction and examining how writers structure chapters of writing.</li> <li>Accessing Mr Bruff on YouTube and watch the series of videos on 'English Language Paper 1: reading', whilst making useful revision notes.         www.youtube.com/user/mrbruff/featured     </li> </ul>	<ul> <li>Reading the play more than once.</li> <li>Watching filmed versions of the play.</li> <li>Accessing Mr Bruff on YouTube and watching the series of videos on the play whilst making useful revision notes.         <ul> <li>www.youtube.com/user/mrbruff/featured</li> </ul> </li> <li>Researching more about Shakespeare and his tragedies.</li> <li>Researching more about Elizabethan theatre.</li> <li>Reading critical articles from the British Library e.g.         <ul> <li>www.bl.uk/shakespeare/articles/new-mutiny-the-violence-of-romeo-and-juliet</li> </ul> </li> </ul>

#### **Engineering**

Topics / tasks:	Section 3 : Systems & Control
Content and skills:	Students will complete section 3 in the text book. This was started during school closure March-July.  1) Mechanical Systems 2) Electrical Systems Students will begin their practical lessons making a series of projects that focus on Mechanical engineering in the engineered world.
Assessment:	Students will be assessed in a test at the end of half term. Students will be assessed throughout the course on written Reponses to questions.
Stretch and challenge:	Students should be actively revising theory tasks completed in term 1 (Teams).  Students have been given a digital copy of the revision book so they can read ahead for topics not yet covered (Teams).  Students can independently look into employment that involves Mechanical Engineering.

#### Food

Topics / tasks:	Component 1: Principles of Food Preparation and Nutrition.	Component 2: Food Preparation and Nutrition in Action.	
Content and skills:	<ol> <li>Students will cover knowledge on:</li> <li>Commodities – bread, cereals, flour, oats, rice, potatoes and pasta value in the diet, their origins, correct storage, working characteristics exploring physical and chemical changes and how to prepare and cook a range of dishes.</li> <li>Principle of Nutrition about carbohydrates, focusing on monosaccharides, disaccharides and polysaccharides.</li> <li>Diet and Good Health will look at individuals with specific dietary needs or nutritional deficiencies and how to plan balanced diets for them. This will include focusing on coeliac disease; diabetes (type 2); dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD); calcium deficiencies including bone health; nut or lactose (dairy) intolerances.</li> <li>Where Food Comes From to focus on primary and secondary processing of food and how processing affects sensory and nutritional properties of ingredients.</li> </ol>	<ul> <li>Students will cover knowledge on:</li> <li>4. Food Science investigating into gelatinisation, dextrinization and gluten formation in bread making. Signs and symptoms of food poisoning to include, salmonella, campylobacter, e-coli and staphylococcus.</li> <li>5. Cooking and Food Preparation whereby students can demonstrate how to make a range of carbohydrate (bread, cereals, flour, oats, rice, potatoes and pasta) based dishes.</li> </ul>	
Assessment:	Students will complete a mini mock exam of knowledge covered so far, using past paper exam questions to help promote good exam technique practice		
Stretch and challenge:	Students should familiarise themselves with the specification for the course and expectations, this includes using the online textbook to familiarise themselves with the topics covered this half term and examples of NEA1 and NEA2.  Students have received login details for the online textbook which can be accessed at <a href="https://illuminate.digital/eduqasfood/">https://illuminate.digital/eduqasfood/</a> . Students should watch related TV programmes which will be advised in class and on Teams.  Students should aim to practice practical skills at home where possible, ensuring they have both permission and supervision from an adult at home when completing practical tasks.		

#### **French**

Topics / tasks:	Students will study the topics of Customs and Festivals / Home, town, neighbourhood and region.
Content and skills:	Customs and Festivals: Some classes have already started the topic of Customs and Festivals just prior to Christmas. Within this unit, students will learn about festivals from around the world and how they are celebrated. They will also describe a festival or event that they have attended. They will study reflexive verbs in the past tense, the perfect infinitive, the imperfect tense and using the imperfect and perfect together.  Home, town, neighbourhood and region: In this topic, students will describe their home and their ideal home. They will learn how to describe where they live, and what there is to see and do there. They will study negative sentences, the conditional tense, use of demonstrative adjectives and possessive pronouns.
Assessment:	In class there will be weekly vocabulary tests, grammar tests and assessment of listening, reading and writing skills.
Stretch and challenge:	Students will be able to research the customs and festivals of France and French speaking countries.

#### Geography

Topics / tasks:	Physical Landscapes in the UK
Content and skills:	Students will continue their study of this topic, building on the work from last half term to examine the key features formed by rivers in the upper, middle and lower course and study one UK river in detail from source to mouth. Students will then study the causes, impact of and responses to flooding in the UK.
Assessment:	A knowledge recall test on the topic of Physical Landscapes in the UK.
Stretch and challenge:	Students can explore the topic further by completing the lessons and quizzes available at: <a href="mailto:classroom.thenational.academy/units/rivers-ba2f">classroom.thenational.academy/units/rivers-ba2f</a>

#### German

Topics / tasks:	Free Time Activities	
Content and skills:	Students will study the topic of Free time activities, including a full range of vocabulary linked to the topic. By the end of the unit, they will know how to form the perfect tense of all verbs (regular, irregular, separable, inseparable, reflexive, modal). They will deepen their knowledge of German syntax.	
Assessment:	They will complete an assessment in Speaking, Writing, Grammar and Translation into English and German.	
Stretch and challenge:	Students who want to challenge themselves will do so by completing extra Reading and Listening exercises on the topic.	

#### Health and Social Care (BTEC)

Topics / tasks:	Component 1 – Learning Aim A part 2	Component 2 – Learning Aim A
Content and skills:		
Assessment:	Component 1 30% of overall grade. Component 2 30% of overall grade.  Embedded in lessons will be:  Assessment criteria How to understand coursework How to present work Command words and keywords review: Describe – not just identify but to describe a situation Explain – how to expand sentences Compare – how to look at both arguments and support with evidence Assess – how to justify, add opinion and support argument with evidence All work is set and collected in Microsoft Teams. Students will complete a mini mock exam of knowledge covered so far, using past paper exam questions to help promote good exam technique practice.  Component 3 40% of overall grade is started end of year 10 beginning of year 11.	
Stretch and challenge:	Students should familiarise themselves with the specification for the course and expectations.  Students should watch related TV programmes which will be advised in class and on Teams.  Students should speak to people in their circle of family and friends to gain re life experiences and opinions. They will create a person time line and for further understanding of different life stages should do one for someone they know.	

#### History

Topics / tasks:	The End of the First World War	Germany in the early 20 <sup>th</sup> Century
Content and skills:	Students will be completing their work on the First World War by studying the varied reasons why the Allies were victorious, including changes in tactics, the failure of the Ludendorff Offensive, the role of Haig and Foch, the impact of the Americans, and the Battle of Amiens and the Hundred Days Campaign. They will study the Armistice and its key terms.	Students will then progress onto the Democracy and Dictatorship model, but studying Germany under Kaiser Wilhelm II, with a focus on the political structures, its economic development and its social structure. Students will then begin to study the post war crises that faced Germany- in particular the impact of the Treaty of Versailles, the Spartacist Uprising, the Kapp Putsch, the Hyperinflation Crisis and the Beer Hall Putsch.
Assessment:	Students will be regularly assessed using practice examination questions that assess key skills of explanatory writing, analysing interpretations and building arguments.	
Stretch and challenge:	Students who wish to consolidate their learning on the First World War can read Forgotten Voices of the Great War, edited by Max Arthurs- a collection of first-hand accounts of different experiences from those who were involved in the conflict. On BBC iPlayer, a number of engaging documentaries, including Our World War (advisory: some strong language) are available. A series on the legacy of the conflict, The Long Shadow, has been uploaded to YouTube.	For the Germany topic, a good place to start for an overview of the topic is the BBC Bitesize site, with a range of details, video explainers and activities that will support the work in the classroom. The Dark Charisma of Adolf Hitler by Laurence Rees, and the TV series that it accompanies, will also help students place the material that we are studying in class into the wider context of the rise of (and appeal of) the Nazis in Germany in the 1930s.

#### Latin

Topics / tasks:	The city of Rome and Roman Society	
Content and skills:	Students will continue to work on the passive tenses, as we learn more about life in Rome among the governing class. We will also revise participles and the other tenses encountered so far.	
Assessment:	Regular vocabulary and grammar tests, plus practice at translating Latin in test conditions.	
Stretch and challenge:	Students should read and research about the city of Rome under the emperors.	

#### Mandarin

Topics / tasks:	Travel in China	
Content and skills:	Students will study the topic traveling, they will learning vocabulary relevant to this topic and be able to apply this through speaking, listening, reading and writing tasks. Also will study the following grammar: the use comparatives and superlatives; the use of question word 'shen me shi hou' the use of 'guo' for past completed action, use of 'yi qian' 'yi hou' to indicate past and future plan, use of "de"after a verb, use of conjunction 'chu leyi wai / hai'.	
Assessment:	In class there will be weekly vocabulary (characters) tests and assessment of listening, reading/translation and writing skills.	
Stretch and challenge:	Students can research Chinese 'zhong qiu jie' and culture around the festival.	

#### Maths

Topics / tasks:	All students Arithmetic, Geometric and Fibonacci Sequences Linear Graphs Inequalities	Higher Tier only Quadratic sequences Quadratic graphs	Higher Tier Extension Fractions Ratio and proportion Indices Standard form
Content and skills:	<ul> <li>Revision and consolidation of previously learned skills</li> <li>Extension of skills to unfamiliar contexts</li> <li>Reasoning and problem solving skills</li> </ul>		
Assessment:	Half term assessment covering content co	overed this half term as well as previously o	covered content.
Stretch and challenge:	<ul> <li>Complete extra work using <u>www.hegal</u></li> <li>Completing enrichment tasks on <u>www.</u></li> </ul>	rtymaths.com and www.corbettmaths.co nrich.maths.org	<u>om</u>

#### Music

	10C	10K	
Topics / tasks:	Ternary Form Composition AOS1: Review & Listening AOS3: Review & Listening	AOS4: Release AOS2: Purcell Performance	
Content and skills:	Developing listening skills in analysis of set works Developing skills of rhythmic, melodic and harmonic composition	Developing listening skills in analysis of set works Preparing a sample performance and test recording	
Assessment:	Practical composition assessment Exam-style listening questions	Performance recording Exam-style listening questions	
Stretch and challenge:	Listening to related works and comparing and contrasting them with the set works	Listening to related works and comparing and contrasting them with the set works	

## Photography

Topics / tasks:	LOCATION.
Content and skills:	Students will be introduced to various techniques using Photoshop to produce a range of tasks. The projects will introduce the students to Photoshop and enable them to have a creative approach to digital photography. Students will be given set briefs which will introduce them to more complex techniques. After each completed task pupils will receive a marked grade on AO1 AO2 AO3 and AO4.  This will involve students learning about the Rules of Photography and producing their own photographs that relate to each title.  The project will then develop onto work that will be based on their own choice of City/Country. This will include ideas for posters and adaptable to mechanise for promotion of the culture of the country.  With each new task students will be introduction to new process, new artists and ways of working, helping them build a portfolio of work in response to the AQA assessment objectives. Students will be expected to cover all the AQA Assessment objectives and work to a deadline.
Assessment:	Their practical work will be regularly reviewed, and feedback given with advice and guidance on how the student can improve and work more independently and effectively. Technical skills using a camera, Photoshop and other photography-assisted programs will be assessed. The assessment objectives (AQA exam board) will be referred to throughout the process. Regular verbal feedback by the class teacher and a program of written self-assessment as part of creating the portfolio.
Stretch and challenge:	Extend their work through a greater exploration of materials and processes. Being creative in approached to how they can use their skills and imagination to refine and explore various techniques. Further reading by exploring creative websites and identifying artists the student finds interesting and inspirational. To then create outcomes and annotation based on investigations and present a personal and expressive response that shows self-confidence and conviction.

#### Physical Education (GCSE)

Topics / tasks:	Complete applied anatomy and physiology (Chapter 1) and start Movement analysis (Chapter 2). In practical lessons football, netball and basketball	
Content and skills:	Understand the different classes of levers Understand how muscles work to cause movement. Understand the planes and axes of different movements Understand the types of movement that occur at joints	
Assessment:	Regular exam style questions and a Kerboodle on-line end of chapter assessment.	
Stretch and challenge:	Become involved in school teams (as they become available) and also train and compete regularly outside of school. Read articles and journals to widen knowledge around sporting issues.	

#### Physical Education (BTEC)

Topics / tasks:	Design of personal fitness training program (Unit 3)	
Content and skills:	Students will use knowledge already gained from autumn term on components of fitness, training method and fitness testing. They will use this to create their own personal training program setting their own targets.	
Assessment:	Students will be assessed using Unit 3 learning aim A official assignment.	
Stretch and challenge:	Use Everlearner for exam content. Make use of the BTEC revision guides and past papers.	

#### **Religious Education**

Topics / tasks:	GCSE Study of Religion: Judaism—Jewish Beliefs and Teachings	
	Pupils must know, understand and express common and divergent views and the basis for beliefs, teachings and practices. References to relevant sources of wisdom and authority are expected, including scripture and/or sacred texts.	
	<u>The nature of God</u> - Issues of God as: One, Creator: Genesis 1: 3-5; 1: 26-28, The Shema. Law-Giver and Judge: Exodus 20:1-15. The nature and significance of shekhinah (the divine presence).	
	<u>Messiah (Mashiach)</u> - Different views within Orthodox and Reform Judaism about the nature and role of the Mashiach (Messiah); special person who brings an age of peace, ourselves, his arrival as signalling the end of the world, praying for his coming, concerned more with living life according to the mitzvoth.	
Content and skills:	<u>Covenant</u> - The meaning and significance of the Abrahamic Covenant: Genesis 12:1-3, 17:6-8, 17:11-14 including the importance of the 'Promised Land' The meaning and significance of the Covenant with Moses at Sinai: Exodus 3:11-15 including the continuing importance of the idea of a 'Promised Land' Importance of the Ten Commandments: Exodus 20:2-14.	
	<u>Life on earth</u> - Beliefs and teachings about the nature and importance of Pikuach Nefesh (sanctity of life): Genesis 1:26-27, Talmud B Yoma 84b, Psalm 139: 13-15, Jeremiah 1:5 The relationship between freewill and the 613 mitzvot (duties) between humans and with God.	
	<u>The afterlife</u> - Orthodox and Reform beliefs and teachings about life after death, judgement and resurrection; spiritual and/or bodily resurrection, immortality of the soul and the belief that we must focus on this life in preparation for whatever happens in the next	
Assessment:	Pupils will have a 30 minute GCSE standard assessment	
Stretch and challenge:	Pupils may wish to read a general introduction to the religion.  Dan Cohn-Sherbok—Judaism Today: An Introduction (Publisher Continuum 2010)	

#### Science: Biology

Topics / tasks:	Topic 7 - Animal co-ordination, control and homeostasis
Content and skills:	Role of hormones Action of adrenalin (higher only) Action of thyroxine (higher only) Hormonal control of the menstrual cycle Contraception and Assisted Reproductive Technology Thermoregulation (triple only) Hormonal control of blood glucose concentration and diabetes Function of the kidney (triple only)
Assessment:	Past exam questions
Stretch and challenge:	Research the current treatments for diabetes

#### **Science: Chemistry**

Topics / tasks:	TOPIC 1: KEY CONCEPTS IN CHEMISTRY TOPIC 3: CHEMICAL CHANGES
Content and skills:	<ul> <li>Masses and empirical formulae</li> <li>Conservation of mass</li> <li>Moles</li> <li>Acids, alkalis and indicators</li> <li>Looking at acids</li> <li>Bases and salts</li> <li>Alkalis and balancing equations</li> <li>Alkalis and neutralisation</li> <li>Reactions of acids with metals and carbonates</li> <li>Solubility</li> </ul>
Assessment:	End of topic tests (where appropriate), Active Learn and Seneca in addition to a cumulative assessment test covering all of the GCSE material studied so far.
Stretch and challenge:	Find out about SMAs and describe how thermosetting and thermosoftening plastics vary in their structure and bonding.

#### **Science: Physics**

Topics / tasks:	Topic 4: Waves	Topic 5: Light and the electromagnetic spectrum
Content and skills:	<ul> <li>Describing waves</li> <li>Wave speeds</li> <li>Refraction</li> <li>Wave crossing boundaries (triple)</li> <li>Ears and hearing (triple)</li> <li>Ultrasound (triple)</li> <li>Infrasound (triple)</li> </ul>	<ul> <li>Electromagnetic waves</li> <li>Uses of the electromagnetic spectrum</li> <li>Dangers of the electromagnetic spectrum</li> <li>Ray diagrams (triple)</li> <li>Colour (triple)</li> <li>Lenses (triple)</li> </ul>
Assessment:	End of topic tests compiled by the exam board	
Stretch and challenge:	Completing relevant exercises on Isaac Physics website.	

#### Spanish

Topics / tasks:	Global issues- protecting the environment and poverty and homelessness
Content and skills:	Students will learn how to use 'si' phrases and prefixes to improve their reading and writing skills. They will learn revision techniques using mind maps to help retain vocabulary and learn how to use reflexive constructions, revise the past (Preterite) tense and advanced constructions to express more opinions that are complex.
Assessment:	Students will have regular vocabulary test and learn how to use <b>kerboodle online</b> to assess all 4-skills, listening, reading, speaking and writing.
Stretch and challenge:	Students will learn more complex uses of the 'Pluperfect tense' and the full formation of the imperfect subjunctive with 'si' phrases in preparation for future 'A level' study.

#### **Textiles**

Topics / tasks:	Bag Design & Investigating Textiles Techniques/Processes	
Content and skills:	Students will continue investigate the following Textiles techniques/processes:  - Repeat pattern design - Screen Printing - Dye sublimation - Block Printing - Tie Dye - Quilting - Batik - Decorative Techniques  Student will be able to explore this topics further through a series of teacher lead demonstrations and video tutorials to support their understanding in this time of reduced hands on practical work.  Students will use the information generated to create a bag design, applying the knowledge they have gained.  Students will continue to gain knowledge and understanding of the greater world of design covering the following topics:  - Powering systems - Energy storage systems - Process devices - Movement types and Leavers/linkages/gears/cams	
Assessment:	Students will carry out a written assessment at the end of the half term covering the topics studied.  Students completion of the research & design task (bag & textiles techniques) will be assessed holistically, in mirroring the AQA marking criteria.	
Stretch and challenge:	Students should consider exploring (researching and evidencing) textiles techniques not explored in lesson time to show further understanding of the subject.  Students should be actively reviewing theory tasks to revise for the end of term test.  Students should be engaged with the class team to access further opportunities for learning.	

#### **Vocational Construction**

Topics / tasks:	Unit 3 (Planning Construction tasks) – They will sit their final exam in June 2021
Content and skills:	Unit 3: This unit focuses on job roles and responsibilities, planning construction jobs (Gant charts) and calculating floor plans.
Assessment:	Work will be assessed using the Eduquas assessment criteria framework graded Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction. <b>Unit 3 is 25% of overall grade.</b>
Stretch and challenge:	<ul> <li>Students could watch episodes of 'Grand Designs' and identify job roles and sequence of work to prepare for Unit 3 exam.</li> <li>Students can compete missing work / complete revision from the whole course using Microsoft Teams.</li> <li>A text book is available for this course: WJEC Vocational Award – Constructing The Built Environment, Level 1/2, Howard Davies, Illuminate Publishing, ISBN 978-1-912820-16-0</li> </ul>

#### **Vocational Engineering**

Topics / tasks:	Unit 1 – Engineering Design – Students are tasked to design a new generic mobile phone charger.
Content and skills:	Students will be asked to complete the following tasks  Annotated Sketches  1. Draw three engineering design solutions. 2. Review the suitability of each design and recommend the best option.  Final Drawing  1. Using accepted standards and conventions draw your best option on paper and using Computer Aided Design (CAD). This should include a 3D rendered computer version of final design.  2. Develop a creative solution that meets the criteria in the design specification.
Assessment:	Work will be assessed using the WJEC assessment criteria framework graded Level 1 Pass, Level 2 Pass, Level 2 Merit and Level 2 Distinction. This Unit is 25% of overall grade. They will sit their final exam in June 2021.
Stretch and challenge:	Students should familiarise themselves with the specification for the course and expectations, this includes using the textbook to familiarise themselves with <b>examples of Unit 1</b> .  Students could purchase the course textbook WJEC Vocational Award – Engineering Level 1/2, Matthew Wrigley, Illuminate Publishing, ISBN 978-1-912820-15-3.  Students should watch related TV programmes which will be advised in class and on Teams.  Students should watch the Engineering video clips on Manufacturing Processes and Materials.