



DURHAM JOHNSTON
COMPREHENSIVE SCHOOL
— DARE TO BE WISE —

Year 11

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 11, 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 11 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

This table shows which exam board the school uses for each qualification.

Click on the [exam board](#) to view the specification via their website.

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

Art

Topics / tasks:	Component One- personal projects
Content and skills:	Students are continuing to develop their coursework, with no exam taking place in the spring. Students need to continue developing their sketchbooks/portfolio sheets, as well as creating ambitious outcomes which demonstrate their skill and knowledge. The class teacher provides individual targets and tasks, through discussion with the student which the student does need to respond to in covering the assessment criteria.
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

Topics / tasks:	Students will complete the following topics this term: Paper 1 content – review based on mock performance (action plans and a focus on technique) Topic 5 – Consolidation of finance units. 6.1 Ethical & Environmental Child Labour; 6.1 Ethical & Environmental Working conditions. 6.1 Ethical & Environmental Fair Trade; 6.1 Ethical and environmental Waste & The Environment. • False advertising • Climate change and the environment 6.2 The economic climate & 6.3 Globalisation
Content and skills:	GCSE Business – the fundamentals and beyond. Be able to discuss: • Legal, social, ethical and environmental impact (including legislation) • Child labour (and the implications to the business, as well as the impact on the child/communities) • Working conditions (and the implications to the business, as well as the impact on the employee) • Economic climate – cause/effect • The concept of globalisation & The impact of globalisation on businesses Data: • Use and analyse graphical data and statistics • Analyse information from a given scenario. Use key information when compiling an answer (application) Interpersonal skills: • Collaborative working, ideas, business and presenting.
Assessment:	Range of exam questions, classwork, homework. Q&A in lessons. Paper 1 mock exam review (full paper 1 ½ hours – 80 marks) Exam questions (multi-choice, essay style extended answer (evaluate) and describe) Use of key terms & application assessed.
Stretch and challenge:	Projects to get involved in and websites to develop understanding: Stop Child Labour / Environment Job Volunteering Opportunities Conservation Volunteering Opportunities / Fairtrade Watch: “Our planet – Our business” Extra: Folders & notes – revise and mind map Two teachers: https://www.youtube.com/channel/UCnVHZKYx1vWVnhRjJqJbNdQ BBC Bitesize - Business GCSE: https://www.bbc.co.uk/bitesize/examspecs/zv8gvk7 SENECA: https://www.senecalearning.com/

Computer Science

Topics / tasks:	Python Programming Fundamentals Logic Gates & Truth Tables The structure and characteristics of the CPU Assembly code design Defensive design and Maintainability of code
Content and skills:	Students will use the programming skills they have learnt to solve an array of problems Students will understand the need for logic gates in CPUs and the rules they maintain Students will investigate the components of the CPU Students will practice solving problems using LMC assembly code Students will apply techniques to reduce the chances of errors when coding
Assessment:	CPU Test /39 Little Man Computer Challenges /4 Paper 2 Practice Test /50
Stretch and challenge:	Learn about the NAND gate and how any logic gate can be constructed using only NAND gates www.electronics-tutorials.ws/logic/logic_5.html Study the Arithmetic Logic Unit (ALU), a component of the CPU which performs calculations. Try to write your own Assembly programs! peterhigginson.co.uk/lmc/

Design Technology

Topics / tasks:	Continuation of NEA
Content and skills:	Students will complete their own response to the NEA tasks set by the exam board (AQA). This term students should explore / complete: • Design development • Manufacturing specification • Production plan • Testing • Evaluation • Modifications for commercial production In preparation for the second mock exam, students should continue to recap knowledge and understanding of the greater world of design covering the following topics: • Materials and manufacture • Ergonomics and anthropometrics • Health and safety • Product analysis (materials, function, safety, sustainability)
Assessment:	The students NEA response will be assessed in accordance with AQA marking criteria. Students will also be assessed in a second mock exam.
Stretch and challenge:	Students should be actively revising theory content. Students have been given a revision book with relevant practice questions that they can use for extra preparation for their exam. Also, www.technologystudent.com is an excellent resource for revision. Students should engage with the class team to access further opportunities for learning.

Drama

Topics / tasks:	Topic 1: Component 1: Written exam. Revision and Live Theatre. Topic 2: Component 3: Texts in Practice rehearse and perform.
Content and skills:	Content of Topic 1: Revising set text and live theatre evaluation for March mock examination. Content of Topic 2: Rehearse and perfect two performances of chosen texts for practical examination (t.b.c with visiting examiner)
Assessment:	Component 2 coursework assessment from first half term. Teacher marked practice questions on the set text. Component 3: practical examination assessed by visiting examiner.
Stretch and challenge:	Using BBC bitesize to revise Blood Brothers Research chosen playtext and any other previous performances for component 3 in more depth.

English

Topics / tasks:	AQA GCSE English Language: Paper 1 Fiction REVISION	AQA GCSE English Literature: Unseen Poetry
Content and skills:	• Re-visiting the home learning work on Paper 1 • Understanding each of the five exam questions • Understanding which methods to use to answer each of the exam questions • Revising descriptive language methods • Studying how writers structure narratives • Evaluating viewpoints and providing personal responses. • Completing individual questions • Completing a full Paper 1 exam.	• Reading new unseen poetry • Exploring poems for methods and structure • Determining the writers' message • Comparing unseen poems by theme • Understanding the format of the exam and mark scheme for each question • Completing both exam questions.
Assessment:	Producing an exam response for Paper 1	Writing exam responses on individual poems and paired comparisons.
Stretch and challenge:	• Reading fiction and examining how writers structure chapters of writing • Accessing Mr Bruff on YouTube and watching the series of videos on 'English Language Paper 1: reading', 'writing to describe' and 'writing to narrate' whilst making useful revision notes. www.youtube.com/user/mrbruff/featured	• Reading poetry via https://www.poetryfoundation.org/ • Annotating poems for the methods the writer uses and why • Accessing Mr Bruff on YouTube and watch the series of videos on unseen poetry whilst making useful revision notes. • www.youtube.com/user/mrbruff/featured

Engineering

Topics / tasks:	Complete and submit
Content and skills:	Students will complete and submit their NEA. This will count for 40% of their final grade. This was started in June and will be submitted for marking in February. Exam preparation- focused maths lesson will start 1 lesson per week
Assessment:	The students NEA response will be assessed in accordance with AQA marking criteria and submitted to the exam board.
Stretch and challenge:	Students should be actively revising theory tasks completed in year 10 & 11 in preparation for mock exams. Students have been given a digital copy of the revision book so they can read ahead for topics not yet covered. Students can independently improve their coursework module from last term based on generic teacher feedback. This is 40% of final grade.

Food Preparation and Nutrition

Topics / tasks:	Component 1 – Principles of Food Preparation and Nutrition.	Component 2 – Food Preparation and Nutrition in Action.
Content and skills:	Students will continue covering revision content, this half term it will include: Food Nutrition and Health focusing on diet related health problems, energy needs and nutritional analysis, planning meals for different groups, changing properties of proteins, changing proteins of carbohydrates and changing properties of fats and oils.	Students will continue to work through their NEA assignments provided by the exam board: NEA2 Students will make sure that by the end of this half term, an evaluation for the practical element of the coursework is written up and all work in the investigation and planning section is complete.
Assessment:	Students will complete a mock exam of knowledge covered so far, using a past paper exam 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 NEA2. Students have received login details for the online textbook which can be accessed at illuminate.digital/edugasfood/ 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:	School and Education
Content and skills:	Students will study the topic of school and education. They will revise the perfect and conditional tenses as well as using key modal verbs in a range of tenses. They will learn new vocabulary relevant to the topic and be able to apply this through speaking, listening, reading and writing tasks.
Assessment:	In class there will be weekly vocabulary and grammar tests. There will also be formal mock exams in Listening, Reading, Translating, Writing and Speaking.
Stretch and challenge:	Students can research school life in other French speaking countries. They can find out about availability of education; types of schooling and subjects taught.

Geography

Topics / tasks:	The Challenge of Resource Management
Content and skills:	Students will examine global distribution of food, water and energy supplies. Students will then explore how the changing demand and provision of resources in the UK create opportunities and challenges. Then focus on factors affecting food supply: climate, technology, pests and disease, water stress, conflict, poverty, as well as the impacts of food insecurity – famine, undernutrition, soil erosion, rising prices, social unrest before assessing different strategies that can be used to increase food supply.
Assessment:	Living world end of unit assessment. A range of informal assessment for resource management throughout the half term.
Stretch and challenge:	Students can explore the topic further by completing the lessons and quizzes available at: https://www.bbc.co.uk/bitesize/topics/zybnhv4 Go to the AQA website and downloading past copies of paper 2 and the mark scheme to practice answering GCSE questions on this topic. Keeping up to date with recent news stories about food, water and energy around the world – the BBC is a good place to start.

German

Topics / tasks:	1. Global issues: Environment and Poverty/ Homelessness 2. Travel & Tourism 3. My Studies and Life at school/ college
Content and skills:	Students will complete the global issues and travel and tourism units, including grammatical elements on impersonal verbs, relative pronouns, complex questions and coordinating and subordinating conjunctions. They will then begin Theme 3: Current and future study and employment. They will cover the topic of school and education, and will focus on grammar around prepositions, infinitive constructions, reflexive verbs, common subjunctive forms, adjectives and adjectives endings, using 'seit', the imperative and revision of the comparative and superlative.
Assessment:	Students will be assessed by regular vocabulary and grammar tests. There will also be formal mock exams in Listening, Reading, Translating, Writing and Speaking.
Stretch and challenge:	Students can research school life in German speaking countries. They can find out about availability of education; types of schooling and subjects taught, and compare these to their own experiences.

Health and Social Care

Topics / tasks:	Level 1 / 2 Vocational Award Health and Social Care
Content and skills:	Core Knowledge & commodities: Half Term 3: Assignment 2 knowledge and skills Tasks: Case study practice, assignment mock questions, extended writing Skills: Research skills – for investigating current demands for care on the HSC sector. Extended writing, questions, taking practice tests for retrieval practice to actively recalling information,
Assessment:	Unit 2: Knowledge test and retrieval practice on the following: 2.3 The roles of key professionals within the health and social care sector 2.5.1 The term safeguarding 2.5.2 The role of legislations in safeguarding individuals 2.6 Current demands for care on the health and social care sector and individuals and how these are changing
Stretch and challenge:	Students should familiarise themselves with the specification for the course and expectations. Students should regularly check the class Team. Students should aim to enhance knowledge of the health and social sector by watching documentaries, programmes about the NHS and reading articles online.

History

Topics / tasks:	Power and the People
Content and skills:	Students will be starting their thematic study of British History, <i>Power and the People</i> . They will be studying how the relationships between the nobility and the King changed across the late medieval period, studying Magna Carta, the Provisions of Oxford, Simon de Montfort and the Peasants' Revolt. Students will also begin their study of change in the early modern period by looking at the Pilgrimage of Grace and the causes of the English Revolution.
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:	For the Elizabethan England topic, students should aim to regularly consolidate their learning between now and the end of the year. <i>BBC Bitesize</i> is an excellent place to start (www.bbc.co.uk/bitesize/guides/zq37frd/revision/1). Students could also deepen their knowledge by reading <i>The History of England vol. II: The Tudors</i> by Peter Ackroyd, a readable and engaging summary of the wider Tudor period, or <i>The Life of Elizabeth I</i> by Alison Weir. Useful revision tools can be located by looking at the curriculum overviews for the year 10 and year 11 content. For Power and the People, there are few resources that specifically address all of the different topic areas at the same time as the period of the study is over 800 years. However, Royal Holloway University have created an extraordinary collection of short videos, covering all of the key protests, as part of their <i>Citizens 800</i> project (https://www.youtube.com/@HistoryHub/videos). These are an invaluable resource and will be an excellent reference point for our students throughout the course.

Latin

Topics / tasks:	Love & Marriage; Revision of complex language features
Content and skills:	Students will be revising the more complex language features required for GCSE, as well as completing our study of the primary source material relating to the Love & Marriage Literature and Sources topic.
Assessment:	Practice exam-style questions on both language and literature.
Stretch and challenge:	Students can read more about Roman society and history. Documentaries on Pompeii or the lives of the emperors or even novels set in ancient Rome can be very helpful in developing students broader understanding of the period.

Mandarin

Topics / tasks:	Family life; My hometown
Content and skills:	Students will revise and extend their vocabulary on these topics. They will be working on all four skills with a focus on grammar structure and how to tackle writing and translation tasks in exams. Students will also focus on how to use adverbs and use 3 different time frames together. They will also look at reading authentic texts and using social/cultural context to understand meaning, break down longer words to understand them.
Assessment:	In class there will be weekly vocabulary tests (characters), and there will be a mock exam on all four skills; listening, reading/translating, writing/translation, and speaking.
Stretch and challenge:	Research Chinese wedding and folk religion.

Maths (Foundation)

Topics / tasks:	Indices and Standard Form Vectors Data and statistics review Transformations Quadratic graphs Rearranging formulae Exam practice
Content and skills:	• Revision and consolidation of previously learned skills • Extension of skills to unfamiliar contexts • Reasoning and problem solving skills
Assessment:	Half term assessment covering content covered this half term as well as previously covered content.
Stretch and challenge:	• Complete extra work using www.sparxmaths.com and www.corbettmaths.com • Completing enrichment tasks on www.nrich.maths.org

Maths (Higher)

Topics / tasks:	<u>Higher Tier</u> Rates of change Geometric sequences Growth and decay problems Iteration Graph Transformations Product rule for counting Exam practice	<u>Higher tier extension</u> Simultaneous equations (3 unknowns) Domain and range Piecewise graphs Factor theorem Disguised quadratics Trigonometry and Identities Co-ordinate geometry
Content and skills:	• Revision and consolidation of previously learned skills • Extension of skills to unfamiliar contexts • Reasoning and problem solving skills	
Assessment:	Half term assessment covering content covered this half term as well as previously covered content.	
Stretch and challenge:	• Complete extra work using www.sparxmaths.com and www.corbettmaths.com • Completing enrichment tasks on www.nrich.maths.org	

Music

	11A	11K
Topics / tasks:	AOS2: Further Listening AOS4: Further Listening • Preparing Composition Submission	AOS1&2: Further Listening • Preparing Composition Submission
Content and skills:	Refining and improving listening skills Developing the ability to write fluently about the set works Refining and editing compositions	Refining and improving listening skills Developing the ability to write fluently about the set works Refining and editing compositions
Assessment:	Exam-style listening questions Formative composition feedback	Exam-style listening questions Formative composition feedback
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:	Students continue to develop their skills using various techniques with Photoshop to produce a range of tasks. The projects will allow further exploration for the students to progress a creative approach to digital photography. MOCK EXAM Students will produce work from a list of titles off a mock exam paper. This will result in work that that covers all the assessment objects and will be presented as an electronic sketchbook.
Content and skills:	With each new task students will be developing creative processes, looking at digital artists and ways of working, helping them build a portfolio of work in response to the AQA assessment objectives. Assessment will be based on component one work only. Previous exam papers will be used to create projects, but the assessment is 100% coursework this year.
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:	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:	Analysis of Performance coursework and Paper 2 revision
Content and skills:	Students are required to analyse and evaluate performance in one activity from the specification. Students can analyse and evaluate their own performance or the performance of another person, so long as it is in an activity that is from the specification. Students are required to analyse and evaluate performance to identify two strengths and two weaknesses. They then need to produce an action plan that suggests ways to improve upon the two weaknesses that they have identified. Revision will focus on Paper 2 knowledge (Chapters 4, 5 & 6)
Assessment:	Teacher feedback. Students send work at the end of every 2 weeks to ensure they are on track which is marked against exam board criteria. Paper 2 specific exam questions and Kerboodle / Everlearner end of topic assessments.
Stretch and challenge:	Continue to use additional resources to further understand the key concepts and reinforce knowledge from Paper 1.

Physical Education (Vocational)

Topics / tasks:	Unit 2 - Practical Sports Performance assignment content and feedback on mock exam.
Content and skills:	Students will study the rules and regulations of two selected sports and develop their practical skills within those sports. Students will identify weaknesses from their mock exam and use subject specific guidance to enhance knowledge.
Assessment:	Students will submit evidence of practical performance for their chosen sports including written evaluation.
Stretch and challenge:	Continue to complete tasks on Everlearner and use BTEC revision guides and past papers.

Religious Education

Topics / tasks:	Christian Practices, Mock and Revision
Content and skills:	Pupils will explore the beliefs and practices of Christianity, further information can be found here: https://www.aqa.org.uk/subjects/religious-studies/gcse/religious-studies-a-8062/subject-content/component-1-the-study-of-religions-beliefs,-teachings-and-practices
Assessment:	Mock Exam and ongoing exam practice
Stretch and challenge:	Reading: AQA RS Textbook, The Puzzle of Christianity by Peter Vardy

Science: Biology

Topics / tasks:	Topic 3 – Genetics	Topic 4 – Natural selection
Content and skills:	Asexual and sexual reproduction (triple only) Cell division by meiosis Structure of DNA Protein synthesis (triple only) Genetic crosses Mutation and variation	Theory of evolution by natural selection Evidence for human evolution (fossils / stone tools) Pentadactyl limb (triple only) Classification: 5 kingdoms / 3 domains Selective breeding Tissue culture (triple only) and genetic engineering
Assessment:	Past exam questions and end of topic assessment	
Stretch and challenge:	Carry out a dihybrid genetic cross	Research extinct / endangered animals

Science: Chemistry

Topics / tasks:	Extraction of metals, Transition metals (separates only), Electrolysis, Revision	
Content and skills:	<u>Extraction of metals</u> • Reactivity series • Metal ores • Redox • Extraction by reduction with carbon • Extraction by electrolysis • Life cycle assessment <u>Transition metals (separates only)</u> • Properties of Transition metals • Alloys • Corrosion	<u>Electrolysis</u> • The process of electrolysis • Formation of products in electrolysis • Half equations • Metal purification <u>Revision</u> • Structure and Bonding • Acids
Assessment:	Short assessment activity via long or short answer question and longer end of unit assessment.	
Stretch and challenge:	Look into use of transition metals in catalysis.	

Science: Physics

Topics / tasks:	Separate sciences: Topics 12 & 13: Magnetism and the motor effect, Electromagnetic Induction	Combined science: Topic 11: Electromagnetic induction	Combined science: Topic 12: The particle model
Content and skills:	• Magnets and magnetic fields • Electromagnetism • Magnetic forces • Electromagnetic induction • The National Grid • Transformers	• The National Grid • Transformers	• Particles and density • Energy and changes of state • Thermal energy calculations • Gas temperature and pressure
Assessment:	End of topic tests compiled by the exam board		
Stretch and challenge:	Completing relevant exercises on Isaac Physics website.		

Spanish

Topics / tasks:	Continuation of unit 11.1 F ¿Trabajar o estudiar? moving onto unit 11.1 H ¿Vale la pena ir a la universidad?
Content and skills:	Using lo que and lo + adjective Using expressions with tener Learning common suffixes. Using the present subjunctive after expressions of time Using the infinitives of reflexive verbs Making deductions in reading and listening. We will also be practising and developing speaking, writing, listening and reading comprehension skills throughout this term.
Assessment:	Students will be assessed by writing, reading and listening comprehension exercises across these topics. In class there will be weekly vocabulary and grammar tests. There will also be formal mock exams in Listening, Reading, Translating, Writing and Speaking.
Stretch and challenge:	Students will be encouraged to read and listen more broadly to Spanish outside of lessons, using predominantly online content, in order to further develop their reading and listening comprehension skills. They also need to revise vocabulary and grammar covered in Theme 1 and theme 2.

Textiles

Topics / tasks:	Continuation of NEA
Content and skills:	Students will continue their own response to the NEA tasks set by the exam board (Eduqas). This term students should explore: • Modelling/testing/ sampling practical outcomes in approved materials (i.e working within Covid restrictions) • Exploring techniques that would help students realise intended design • Writing a product specification • Writing a manufacturing specification • Creating final design • Evaluate their final designs against their specification Students will continue to recap knowledge and understanding of the greater world of design.
Assessment:	The students NEA response will be assessed in accordance with Eduqas marking criteria. Students will also be assessed in a mock exam.
Stretch and challenge:	Students should be actively revising theory tasks. Students have been given a revision book with relevant practice questions that they can use for extra preparation for their exam. Students should be engaged with the class team to access further opportunities for learning.

Vocational Construction

Topics / tasks:	Complete Practical Construction Projects
Content and skills:	Unit 3 is completing the following practical projects: • Electrics • Plumbing • Carpentry & Joinery There are practical and written tasks for each area.
Assessment:	Student will complete a portfolio of evidence of practical work . This portfolio is worth 60% of final grade and will be completed this term and sent to exam board.
Stretch and challenge:	Additional Revision for mock and final exams which can be accessed via Microsoft Teams. After school session are available to complete practical work September to February until submission. Extra work can be complete at home on teams.

Vocational Engineering

Topics / tasks:	Unit 3 Solving Engineering Problems
Content and skills:	3.1 Understanding the effects of engineering achievements 3.2 Understanding properties of engineering materials 3.3 Understanding methods of preparation, forming, joining and finishing of engineering materials 3.4 Solving engineering problems Unit 3 Students will be asked to revise the following tasks: Learning Objective 1: be able to describe engineering developments; structural (bicycles), mechanical (theme park rides) and electronics focusing on mobile phone/ smart technology. Learning objective 2: Understanding materials, their properties, and their selection for specific purposes. Learning objective 3: Explaining how materials are tested for properties. Students should know and understand how destructive and non-destructive testing is undertaken to determine physical properties of engineering materials.
Assessment:	Work will be assessed using the WJEC assessment criteria framework: Unit 1 makes up 40% of overall grade, Unit 2 20% of the overall grade and Unit 3 (Examination) accounts for 40% of overall grade.
Stretch and challenge:	Students should familiarise themselves with the specification for the course and expectations, this includes using the textbook to familiarise themselves with exemplar materials and Theory for Unit 3 exam. Students could also revisit their unit 1 and 2 coursework materials to review tools and processes they have used. Students could also research environmental issues relating to the production of engineering materials and products.