



DURHAM JOHNSTON
COMPREHENSIVE SCHOOL
— DARE TO BE WISE —

Year 12

Curriculum Overview ***Half Term 1***

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 12, students spend 5 hours per week on each of their subjects. They also attend lessons in Preparation for Higher Education on a rotational basis.

The information for each subject is categorised as follows:

Topics / tasks: This is the overview of the topics Year 12 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.

Subject	Awarding Body	Subject	Awarding Body	Subject	Awarding Body
<u>Art</u>	<u>Edexcel</u>	<u>Ethics and Philosophy (RS)</u>	<u>OCR</u>	<u>Media Studies</u>	<u>WJEC</u>
<u>Biology</u>	<u>OCR</u>	<u>French</u>	<u>AQA</u>	<u>Music</u>	<u>AQA</u>
<u>Business</u>	<u>Edexcel</u>	<u>Geography</u>	<u>AQA</u>	<u>Physical Education</u>	<u>AQA</u>
<u>Chemistry</u>	<u>OCR</u>	<u>German</u>	<u>AQA</u>	<u>Physics</u>	<u>OCR</u>
<u>Computer Science</u>	<u>AQA</u>	<u>Government and Politics</u>	<u>AQA</u>	<u>Psychology</u>	<u>AQA</u>
<u>Economics</u>	<u>Edexcel</u>	<u>History</u>	<u>OCR</u>	<u>Sociology</u>	<u>AQA</u>
<u>English Language</u>	<u>AQA</u>	<u>Latin</u>	<u>OCR</u>	<u>Spanish</u>	<u>AQA</u>
<u>English Literature</u>	<u>AQA</u>	<u>Maths</u>	<u>OCR</u>		

Art

Topics / tasks:	Students will be responding to a three-week assignment, which will prepare them for the start of a personal investigation. Responding to titles from previous exam papers, students will create artwork and a written response to a question related to their assignment.	
Content and skills:	Practical drawing skills and methods of recording. Constructing an essay using specialist terminology. Presenting all work for moderation.	
Assessment:	Work will be assessed using the exam board assessment criteria. This to include a tutorial where students will outline their own self-evaluation and plan for the next assignment.	
Stretch and challenge:	Reading and gaining greater knowledge of their chosen area of investigation. Spending time refining skills developed during Year 11.	Becoming familiar with the course specification and use of assessment. www.ocr.org.uk/Images/170210-specification-accredited-a-level-gce-art-and-design-h600-h606.pdf

Biology

Topics / tasks:	Cell structure, biological molecules and biological membranes.	
Content and skills:	Knowledge • Detailed structure of cells • Structure and function of carbohydrates, lipids and proteins • Structure and function of cell membranes	Skills • Using a microscope, including use of a graticule • Carrying out tests for biological molecules • Using computer modelling to observe protein structure
Assessment:	Short assessment on transition material studied over summer and then continual assessment of topics taught throughout the term using past examination questions.	
Stretch and challenge:	Variety of online courses available - guidance can be personalised to students. For example: www.futurelearn.com/courses/biochemistry	

Business

Topics / tasks:	Theme 1: Marketing and People.
Content and skills:	1.1 The market > 1.1.2 Market research > 1.1.3 Market Positioning 1.2.1 Demand (including drawing and interpreting graphical data) > 1.2.2 Supply (numerical, mapping and interpreting) > 1.2.3 Markets (supply and demand diagrams) 1.4.1 Approaches to staffing > 1.4.2 Recruitment, selection and training > 1.4.3 Organisational design (hierarchy) > 1.4.4 Motivation in theory and practice (Taylor, Mayo, Maslow, Herzberg) Preparation for mock examination (November) Re-enforcement of: The expected approach / standards. Exam board requirements & assessment overview. Content + use of context + structure / technique. Understanding the marking structure and how to apply it to exam answers (1+2+1 etc.).
Assessment:	Q & A in class. Terminology tests. Past exam questions - including time-constrained. Knowledge check questions at the end of each sub-section.
Stretch and challenge:	Taking a topic and leading our 'what's in the news' insight / class discussion into contemporary issues - relevant to previously studied areas of the course e.g., Innocent Ltd story from a marketing and HR / leadership perspective. Join our BusSoc – become an ambassador. Practice papers and guidance to develop technique and knowledge: https://ocr.org.uk/qualifications/as-and-a-level/business-h031-h431-from-2015/assessment/.

Chemistry

Topics / tasks:	Module 2: Atoms and Reactions, Module 2: Structure and bonding	
Content and skills:	<u>Module 2</u> • The atom and atomic models • Relative mass, the mole, empirical and molecular formula, equations and calculations, formulae of ionic compounds • Atom economy and percentage yield • Electronic structure	<u>Module 2</u> Electronic structure Ionic bonding Covalent bonding Shape of molecules Polarity and intermolecular forces Oxidation numbers
Assessment:	Topic test on Structure and Bonding, in-class assessment of determination of formulae	
Stretch and challenge:	Visit online reference sites such as Seneca and the BBC Bitesize website. Please check the Science team regularly for updates and extra resources. Use physicsandmathstutor.com to access past paper questions and revision resources.	

Computer Science

Topics / tasks:	Programming Basics (VB.NET) Binary and Hexadecimal Logic Gates and Boolean Algebra Encryption/Compression
Content and skills:	Students will learn the concepts of selection and iteration in a new language Students will practice binary addition/multiplication and subtraction Students will use the Boolean identities to simplify Boolean expressions Students will identify the properties of a full-adder circuit and the purpose of a flip-flop in the circuit Students will apply the Caesar and Transposition cipher to problems, and also understand the need for the Vernam cipher
Assessment:	Binary arithmetic and Logic Gates assessment Logic, Boolean, and Trace Table assessment Paired Programming Assessment Half-term programming project assessment
Stretch and challenge:	Complete the problems listed on ProjectEuler Investigate the concept of "Two's complement" and how it applies to Binary representation Investigate "D-type Flip Flops" and their purpose in processor architecture Research the reasons why the Vernam cipher algorithm is <i>unbreakable</i>

Economics

Topics / tasks:	Theme 1: Introduction to markets and market failure
Content and skills:	• Economics as a social science • Positive and normative economic statements • The economic problem • Production possibility frontiers • Specialisation and the division of labour • Free market economies, mixed economy and command economy • Rational decision making • Demand • Price, income and cross elasticities of demand • Supply • Elasticity of supply • Price determination • Price mechanism • Consumer and producer surplus Use of key economic terminology, developing chains of reasoning, application of economic knowledge to different situations, quantitative and qualitative economic analysis and evaluation of case study material.
Assessment:	Multiple Choice Questions. PPQs.
Stretch and challenge:	Use of textbook. Online material - follow @econdj on Twitter, stay up to date with current affairs - Financial Times, guardian, BBC. Wider reading - see reading list.

English Language

Topics / tasks:	Paper 1: Language and the individual Section A: meanings and representations	Paper 2: Language varieties Section A: Social groups
Content and skills:	- Studying a range of texts and exploring how meaning is conveyed through language choices. Students will explore how language is: shaped according to audience, purpose, genre and mode; shaped according to context; used to construct meanings and representations and used to enact relationships between writers, speakers and audiences or between participants within a text. - Practising writing essays by examining exemplars and producing their own paragraphs/essays.	- Developing an understanding of how differing social groups use language. This includes an examination of phonological, lexical, grammatical and pragmatic usage. Groups include personal idiolect, teen sociolect, social class and ethnicity. - Evaluating different theories, approaches and views to language and social groups. - Practising writing essays by examining exemplars and producing their own paragraphs/essays.
Assessment:	- Terminology tests - Paper 1, section A in-class essays	- Theory tests - Paper 2, section A in class essays
Stretch and challenge:	- Read 'Text Analysis and Representation' (Cambridge topics in English Language) - Read 'The English Language' (David Crystal) - Read newspapers - Research word classes and political leanings of different publications.	- Read 'Language Diversity and World Englishes' (Cambridge topics in English Language) - Read 'The English Language' (David Crystal) - Read 'The Life of Slang' (Julie Coleman) - Read 'You Are What You Speak' (Robert Lane Greene)

English Literature

Topics / tasks:	Paper 1: Love Through the Ages Section C: <i>The Great Gatsby</i>	Paper 2: Texts in Context Section A: <i>A Streetcar Named Desire</i>
Content and skills:	- Developing knowledge of different portrayals of love in literature, such as married love, unrequited love, obsessive love and so on. - Learning about periods and movements of literature from the Renaissance to Modernism and beyond. - Delving into the context of <i>The Great Gatsby</i>: the Roaring 20s, the American Dream, etc. - Examining the narrative techniques used by F Scott Fitzgerald to craft <i>The Great Gatsby</i>. - Honing essay writing skills, by dissecting exemplars and practising writing paragraphs.	- Developing knowledge of prevalent themes in literature from 1945 onwards for instance isolation, personal identity, issues of race, gender, etc. - Analysing how writers use sophisticated narrative methods to structure their work. - Studying the context of <i>A Streetcar Named Desire</i>: the American Dream, the antebellum period and so on. - Examining the setting and dramatic devices used by Tennessee Williams in <i>A Streetcar Named Desire</i>. - Honing essay writing skills, by dissecting exemplars and practising writing paragraphs.
Assessment:	Writing an essay about <i>The Great Gatsby</i> . (1hr)	Writing a full essay of Section B: <i>A Streetcar Named Desire</i> (1hr)
Stretch and challenge:	Reading widely from the different periods and movements of literature, such as Romanticism, Modernists, etc, with a focus on poetry of love. Reading other works by F Scott Fitzgerald for instance <i>This Side of Paradise</i> .	Reading widely prose texts from 1945 onwards that explore themes discussed such as political upheaval and post-imperialism. Reading other works by Tennessee Williams such as <i>Cat on a Hot Tin Roof</i> .

French

Topics / tasks:	The topic of family life in French speaking countries. Revision of tenses. The topic of French heritage (le patrimoine). The novel “No et Moi”
Content and skills:	1. Gaining confidence with the formation of any tense in French. 2. Learning specific vocabulary for the two topics: family and especially heritage as this is a new topic, not seen in GCSE; to be able to speak about them and understand listening and reading tasks on the subject. Learning the new skill of “résumé” required in Paper 1. 3. Understanding a French novel
Assessment:	1. Weekly vocabulary and grammar tests. 2. a) Exercises on grammar rules and their implementation on longer writing b) Vocabulary tests and questions on the topic to work on developing answers using the specific vocabulary learnt. 3. Short character study of a main character
Stretch and challenge:	1. Undertaking research on changes in family life in a French speaking country. 2. a) Do extra practice exercises on tenses. b) Undertaking research on specific aspect of the French heritage. 3. Watching the film of the novel and exploring its themes

Further Maths

Topics / tasks:	Pure Cure Mathematics, Additional Pure Mathematics:	
Content and skills:	• Complex numbers • Matrices • Further algebra • Proof • Further vectors • Sequences and series • Applications of vectors	Applications and modelling. Interpretations of Results. Proof of Results Examination technique Problem solving Self-evaluation and study skills.
Assessment:	• Complex numbers assessment • Matrices assessment • Regular Homework assignments	
Stretch and challenge:	UKMT Maths Challenges: • Senior Maths Challenge • Mathematical Olympiad for Girls • Mathematical Competition for Girls Problem solving on www.maths.nrich.org There are a variety of courses available to help students with problem solving and preparation for entrance exams. Students should check Teams regularly for these opportunities.	

Geography

Topics / tasks:	Coastal Systems and Landscapes	Contemporary Urban Environments
Content and skills:	Students will learn about the key components of physical systems in geography, the difference between open, closed and isolated systems and how positive and feedback loops affect the dynamic equilibrium of systems. Students will study the concept of landform and landscape; the different zones of the coastline; sources of sediment for the coastal system; features of coastal sediment cells, including the concept of the coastal sediment budget. They will examine the characteristics and role of the energy sources in a coastal system, compare and contrast high and low energy coastlines and assess how geomorphological processes shape coastal landforms and landscapes using a temporal and spatial approach.	Students will examine global patterns, causes and consequences of urbanisation in High Income and Low Income Countries. Students will investigate the different types of urban area, including world cities, meta-cities, megacities, millionaire cities, alpha and beta cities. They will assess the processes of urban environments including suburbanisation, counter-urbanisation, urban decline/deindustrialisation, urban resurgence, urban regeneration and gentrification.
Assessment:	A range of exam questions and tests including multiple choice, 4 mark, 6 mark, 9 mark questions and 20 mark essays. There will be opportunity for peer and self-assessment using mark schemes as well as formal teacher assessment.	
Stretch and challenge:	Read widely around the topic using the guide provided at the start of the year e.g. Flipboard magazines, Geographical magazines, Wider World magazines, World Economic Forum Website, BBC News, The Economist etc. Go to the AQA A level Geography website and download past copies of AS level paper 1, practise exam questions and check answers using the mark schemes.	

German

Topics / tasks:	The topic of Family life The film - <i>Das Leben der Anderen</i> Grammar
Content and skills:	Students will be consolidating their knowledge of areas taught in Year 11 German and moving on to the AS German course. Students will be developing their listening, speaking, reading, writing, grammar, translation and summarising skills. Students will learn new vocabulary and grammar. Students will reinforce their knowledge of regular and irregular verbs, the use of different tenses, German word order, and the use of sub-clauses as well as declensions. Students will prepare to write an AS essay about the film "Das Leben der Anderen".
Assessment:	Demonstrating their knowledge in vocabulary and grammar tests as well as an assessment in writing.
Stretch and challenge:	Learning more vocabulary on topic family, practicing German grammar and write additional essays on the film topic.

History

Topics / tasks:	A depth study into Winston Churchill	The Causes of the French Revolution, 1789
Content and skills:	Churchill's role and response to key issues in early 20 th century British history, particularly Indian independence, the abdication crisis, the rise of Fascism in Europe and Britain's foreign policy and his role as a wartime leader.	Students will investigate the problems of ancien regime France, particularly the social division, financial issues and role of the monarchy, before looking at the key events of 1789 and their impact.
Assessment:	Completing exam-style questions that test the ability to interpret, analyse and evaluate source material using detailed historical knowledge.	Planning and writing A-Level style essays, as well as answering questions that require a comparative analysis of two specific factors
Stretch and challenge:	Reading: Andrew Marr, A History of Modern Britain Paul Addison, The Road to 1945 Andrew Roberts, Churchill: Walking With Destiny Leo McKinstry, Atlee and Churchill: Allies in War, Adversaries in Peace	Reading: William Doyle, The French Revolution: A Very Short Introduction Simon Schama, Citizens Christopher Hibbert, The French Revolution Audio: Series 3 of Mike Duncan's Revolutions Podcast is an excellent companion to the course. Very highly recommended. Freely available through Spotify or Apple Music; your teachers can share the files with you if you would prefer.

Latin

Topics / tasks:	Revision of basic noun & verbs endings from GCSE; present subjunctive
Content and skills:	Translating English-to-Latin; extending vocabulary
Assessment:	Translation assessment, in addition to regular vocabulary and grammar tests
Stretch and challenge:	Using online resources such as Quizlet to consolidate vocabulary knowledge

Maths

Topics / tasks:	Quadratics: expanding, factorising, discriminant, simultaneous equations Surds and indices Proof: direct proof, proof by exhaustion and proof by contradiction Coordinate geometry: straight lines and circles Sequences and series: the binomial expansion for positive integer powers Vectors: magnitude, direction, unit vectors, proof Polynomials: the factor theorem, sketching graphs Inequalities: linear equalities, graphs, quadratic inequalities Probability Distributions: functions, tables and the binomial distribution
Content and skills:	Review and extension of KS4 topics. Applications and modelling. Examination technique Problem solving Self-evaluation and study skills.
Assessment:	Algebra assessment on KS4 algebra. Weekly homework tasks.
Stretch and challenge:	UKMT Senior Maths Challenge Maths Olympiad for Girls Problem solving on https://nrich.maths.org

Media Studies

Topics / tasks:	Component 1 Set Texts and Exam Structure	Introduction to the Theoretical Framework in Media Studies – including key theorists
Content and skills:	Students will study the following Component 1 Units and set texts this half-term - Advertising & Marketing – studying Media Language, Representation, Audiences and Contexts Texts studied – Tide advert, Tokyo Superhuman, Kiss Of The Vampire - Music Videos - studying Media Language, Representation, and Contexts Texts studied – Formation and Riptide	Students will be taught key Media terminology and theory this half-term - Media language: how the media through their forms, codes, conventions and techniques communicate meanings - Representation: how the media portray events, issues, individuals and social groups - Audiences: how media forms target, reach and address audiences, how audiences interpret and respond to them, and how members of audiences become producers themselves. Media theory: introduction to key theory linked to Media language and representation
Assessment:	Timed exam questions for each set text and an Unseen text exam to assess their use of Media language and terminology. Ongoing class tests/Teams quizzes on key theorists and terminology	
Stretch and challenge:	Studying other examples of key texts in the advertising, marketing and music video genres as suggested on the Media Studies Teams site.	Use the Media Studies Teams Key Theorist section to watch the videos for every theorist studied and follow the links suggested for further reading.

Music

Topics / tasks:	• <u>History & Analysis</u> – Baroque (introduction & Purcell) • <u>History & Analysis</u> – Jazz (introduction & Armstrong) • <u>History & Analysis</u> – Introduction to Aural Perception • <u>Composition</u> – basic 4-part harmony • <u>Performance</u> – solo repertoire and performance skills
Content and skills:	• <u>History & Analysis</u> – contextual and historical information, and listening and analysis skills. • <u>Composition</u> – techniques of chord construction and voice leading • <u>Performance</u> – selecting repertoire and honing performance skills
Assessment:	• Regular exam-style listening questions • Longer passages of written prose analysis • Harmony exercises • Performance reviews/recital opportunities
Stretch and challenge:	• Undertake some further reading using online resources, or books from the department • Revisit previous content and written work, improving in response to teacher feedback

Politics

Topics / tasks:	3.1.2. Politics of the UK
Content and skills:	3.1.2.1. Democracy and Participation 3.1.2.2. Elections and referendums 3.1.2.3. Political Parties 3.1.2.4. Pressure Groups
Assessment:	Written assignments
Stretch and challenge:	Reading a textbook or teacher notes; Reading a broadsheet newspaper (Guardian, Times, Telegraph, Independent); picking a book from the reading list handed out at the start of term; using www.parliament.uk/briefing-papers/

Physics

Topics / tasks:	Module 2: Foundations of physics Module 3: Forces and motion Module 4: Electrons, waves and photons		
Content and skills:	Module 2 – Foundations of physics • Physical quantities and units • Measurements and uncertainties • Scalars and vectors	Module 3 – Forces and motion • Kinematics • Linear motion • Projectile motion	Module 4 – Electrons, waves and photons • Charge and current • Drift velocity • Energy, power and resistance • Electromotive force and potential difference
Assessment:	Test on Foundations of physics and Charge and current in late September. In-class assessment, homework assignments.		
Stretch and challenge:	Completing relevant exercises on Isaac Physics website.		

Physical Education

Topics / tasks:	Physiology, psychology, and socio-cultural topics
Content and skills:	In socio-cultural lessons they will examine the history of sport focussing on the characteristics of popular and rational recreation. In psychology students will have an introduction to skill acquisition. This will include classification of skills, characteristics of skilled performance and practice structure. In physiology they will look at body systems, beginning with the cardio-vascular system, specifically heart physiology and progressing to cardiac control.
Assessment:	Everlearner checkpoint test and a long answer question on each area.
Stretch and challenge:	Use PE journals and internet sources to read beyond set A level text books. Also keep up-to-date with current sporting issues.

Psychology

Topics / tasks:	Topic 1 - Key Approaches & Biopsychology Topic 2 - Research Methods
Content and skills:	Topic 1 - Psychodynamic, Behaviourism, SLT, Cognitive, Humanistic and Biological approaches. CNS, Neurons, synaptic transmission and ANS. Topic 2 - carrying out scientific investigations using the experimental method.
Assessment:	Written assignments, multi choice questions and a mock assessment of Topic 1.
Stretch and challenge:	Using the text book: Chapters 4 & 6

Religious Studies (Ethics & Philosophy)

Topics / tasks:	OCR Religious Studies
Content and skills:	Philosophy: The philosophical views of Plato, in relation to an understanding of reality, the Forms, the Analogy of the Cave. The philosophical views of Aristotle in relation to an understanding of reality, the Four Causes, the Prime Mover. Ethics: The religious normative ethical theories: Natural Moral Law and Situation Ethics. Developments in Christian Thought: Augustine's Teaching on Human Nature, Human relationships pre and post-Fall, Original Sin and its effects on the will and human societies, God's grace.
Assessment:	Students have essays to prepare for each strand of their AS Level work.
Stretch and challenge:	Philosophy further reading: J Annas (1998) <i>An Introduction to Plato's Republic</i>, Oxford University Press, Chapters 9 and 10. Stanford Encyclopedia of Philosophy (2004, revised 2013, Plato. http://plato.stanford.edu/entries/plato/ Ethics further reading: Vardy, <i>The Puzzle of Ethics</i> (1990), Vardy, <i>Ethics Matters</i> (2012), Fletcher, <i>Situation Ethics: The New Morality</i> (1966). Christian Thought further reading: P Vardy (2017) <i>The Puzzle of Christianity</i>. Augustine, <i>The Confessions</i>

Sociology

Topics / tasks:	An Introduction to key sociological terms and theory Sociology of Families and Households Sociology of Education
Content and skills:	Key concepts and Theories in Sociology, Functionalism, Marxism, Feminism, Interpretivism and Postmodernism What is family, family types. Functionalist, Marxist and Feminist Perspective of the Family Role of education; Class and education
Assessment:	Written assessments
Stretch and challenge:	Use the textbook and read relevant sections; Read a broadsheet newspaper to find social commentary on these issues; Listening to 'Thinking allowed' on BBC Radio 4 and using their archive; Looking at 'TED' talks that are relevant to sociology; Looking at LSE blogs on social political commentary https://blogs.lse.ac.uk/

Spanish

Topics / tasks:	Revision of GCSE Grammar The topic of 21st century families and past models. The topic of the influence of celebrities Study of the film <i>Volver</i>
Content and skills:	Students will study new grammar (in addition to GCSE grammar revision cited above) which will include using indirect and direct object pronouns, forming the passive voice, using connectives, Imperfect and Imperfect continuous, and the Preterite tense. They will develop listening, reading, writing, speaking and translation skills. Students will also learn how to apply analytical and critical thinking skills in order to formulate meaningful responses and opinions to both conversation and essay topics.
Assessment:	Students will be assessed on la Influencia de los idolos, covering writing, translation, listening and reading. They will also be assessed on fluency and spontaneity and their overall understanding of the topics in conversation classes. There will be essays set as well as frequent vocabulary tests and exercises to assess translation and summary skills.
Stretch and challenge:	Following current affairs in Spanish speaking countries via newspapers, magazines, TV channels such as RTVE and engaging with additional materials provided by Kerboodle online, to which, all students have access. Researching Hispanic celebrities from cinema, TV and music and their positive and negative influences. Finding out about Pedro Almodovar, his oeuvre and his impact on Spanish and world cinema.