



DURHAM JOHNSTON
COMPREHENSIVE SCHOOL
— DARE TO BE WISE —

Year 12

Curriculum Overview *Half Term 2*

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

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

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:	Module 2: 2.1.3 Nucleotides and nucleic acids, 2.1.4 Enzymes, 2.1.5 Biological membranes, 2.1.6 Cell division, diversity and organisation
Content and skills:	• Enzyme theory, including inhibitors and cofactors • Investigating enzyme reactions • Nucleotides, DNA, RNA and protein synthesis • Investigating membrane transport • Mitosis • Identifying stages of mitosis under the microscope
Assessment:	Continual assessment 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 or https://www.edx.org/course/subject/biology-life-sciences

Business

Topics / tasks:	Theme 1: Marketing and People Theme 2: Managing Business Activities
Content and skills:	1.2.1 & 1.2.2 Demand (factors leading to..) > Supply 1.2.3 Markets 1.2.4 Price elasticity of demand (elastic & inelastic, including applying formula and interpreting graphical data) 1.4.5 Leadership 1.5.1 Role of an entrepreneur > 1.4.2 Entrepreneurial motives and characteristics > 1.5.6 Moving from entrepreneur to leader 1.5.3 Business Objectives > 1.5.4 Forms of Business > 1.5.5 Business Choices 1. The expected approach / standards. 2. Exam board requirements & assessment overview. 3. Content + use of context + structure / technique. 4. Revision techniques 5. Consolidation of Theme 1 6. 2+4+8+10+20 mark expectations
Assessment:	Q & A in class. Terminology tests. Past exam questions - including time-constrained. Knowledge check questions at the end of each sub-section (students self-monitor).
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. Access Teams regularly for up-to-date context to investigate. Join our BusSoc, become an ambassador. Use the supercurricular document (Teams) to develop your understanding of Business (course and qualification suggestions)

Chemistry

Topics / tasks:	MODULE 2: Acids MODULE 4: Basic Organic Chemistry
Content and skills:	• Acids, bases, alkalis and neutralisation • Acid-Base titrations • Oxidation Number • Redox reactions • Nomenclature of organic compounds • Functional Groups • Isomerism • Reaction Mechanisms • Skeletal, Structural and displayed formula • Reactions of Alkanes
Assessment:	End of topic tests for each section, past paper questions
Stretch and challenge:	Students can prepare for the RSC Olympiad which happens in January: https://edu.rsc.org/resources/chemistry-olympiad-past-papers/1641.article or prepare for the Cambridge L6th Chemistry Challenge which happens in June: http://c3l6.org/

Computer Science

Topics / tasks:	Programming – Subroutines & Abstraction The Classification of Software Programming using Assembly Instructions Computer Architecture and Computer Networks
Content and skills:	Students will understand how to apply Abstraction in code, and use "good-practice" techniques, including the need for dividing programs into a set of specific subroutines Students will understand the characterisation of different software products, and be able to identify characteristics in software, as well as understand the need for three different types of translation software. Students will learn the history of programming languages, and experience developing basic programs using a structured assembly language Students will study the internal and external components of a computer, focusing on the structure of the processor and the use of the system bus. Students will learn the steps of the TCP/IP protocol and how data is navigated from a home LAN to a server through the combined use of subnet masking, NAT, routers, and port forwarding.
Assessment:	Assessment of Abstraction (Robot Wars program) Assessment of Subroutines & Functions (Poker assessment) Half-term programming project assessment (Connect 4) Assessment of Paper 1 topics + Boolean Algebra Assessment of Binary, Logic, Encryption + Hardware
Stretch and challenge:	Complete the problems listed on Project Euler https://projecteuler.net/archives Investigate the key differences between compilers and interpreters and the application for each (including Bytecode) https://techterms.com/definition/bytecode Investigate how we can create subroutines using the LMC instruction set http://teaching.idallen.com/dat2343/11w/notes/306_LMCProgramming.html

Economics

Topics / tasks:	Indirect taxes and subsidies, alternative views of consumer behaviour, types of market failure, externalities, public goods, information gaps, government intervention in markets and government failure.
Content and skills:	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.
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, the individual and society Section A: meanings and representations	Paper 2: Language Diversity and Change Section A: Accent and Dialect
Content and skills:	- Study a range of texts and explore 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. - Practise writing essays by examining exemplars and producing their own paragraphs/essays.	- Develop an understanding of spoken language and accent and dialect. This includes an examination of phonological, lexical, grammatical and pragmatic usage. - Evaluate different theories, approaches and views to Accent and Dialect. - Practise writing essays by examining exemplars and producing their own paragraphs/essays.
Assessment:	- Terminology tests - Past paper questions - In class essays	- Theory tests - Past paper questions - In class essays
Stretch and challenge:	- Read 'Text Analysis and Representation' (Cambridge topics in English Language) - Read 'The English Language' (David Crystal) - Research word classes and political leanings of different publications.	- Read 'Attitudes to Language' (Cambridge topics in English Language) - Read 'The English Language' (David Crystal) - Read 'Language Diversity and World Englishes' (Cambridge topics in English Language)

English Literature

Topics / tasks:	Paper 1 Section C: <i>The Great Gatsby</i> and pre-1900 Poetry from the AQA Anthology	Paper 2 Section A: <i>A Streetcar Named Desire</i>
Content and skills:	- Applying knowledge of different portrayals of love in literature to the presentations of love in <i>The Great Gatsby</i>. - Examining the narrative and structural techniques in the text. - Exploring the genre features of <i>The Great Gatsby</i> for instance Bildungsroman, tragedy, etc. - Honing essay writing skills, by dissecting exemplars and practising writing paragraphs. - Beginning to study the pre-1900 Poetry Anthology poems such as <i>Whoso List</i> and <i>Sonnet 116</i> for how they portray love. - Applying knowledge of a wide variety of poetic forms for example sonnet, lyric, elegy, etc. - Analysing how writers use poetic methods to establish layers of meaning in their poems. - Comparing depictions of love in <i>The Great Gatsby</i> and the pre-1900 poetry.	- Applying knowledge of prevalent themes in literature from 1945 onwards for instance isolation, personal identity, issues of race, gender, etc, to the study of <i>A Streetcar Named Desire</i> - Evaluating the use of dramatic methods by Tennessee Williams to create themes, atmosphere and symbolism. - Honing essay writing skills, by dissecting exemplars and practising writing paragraphs. - Exploring critical articles to study different interpretations of the poems.
Assessment:	Writing a full Section C: <i>Gatsby</i> / Pre-1900 Poetry exam (1hr)	Writing a full Section A: <i>A Streetcar Named Desire</i> exam (50 mins)
Stretch and challenge:	Read other poetry by the writers such as more of Shakespeare's sonnets. Read critical materials about the pre-1900 poems, such as Carol Rumen's <i>Poem of the Week</i> articles and articles found at: https://www.bl.uk/learning/online-resources	Research the life and works of Tennessee Williams for example: https://www.bbc.co.uk/programmes/b00p8dkb Read other plays such as <i>Cat on a Hot Tin Roof</i>.

Ethics & Philosophy (Religious Studies)

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: Normative ethical theories: Kantianism and Utilitarianism. Developments in Christian Thought: Natural and Revealed Theology, Christology.
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 Encyclopaedia of Philosophy (2004, revised 2013, <i>Plato</i>. http://plato.stanford.edu/entries/plato/ Ethics further reading: Bentham J. (1789) <i>An Introduction to the Principles of Morals and Legislation</i>, Mill, J.S. (1863) <i>Utilitarianism</i>, Singer, P. (1993) <i>Practical Ethics</i>, Cambridge University Press. Christian Thought further reading: Vardy, <i>The Puzzle of Christianity</i> (2016), McGrath, <i>Christian Theology: An Introduction</i> (2011).

French

Topics / tasks:	1. Completing the study of the family in French speaking countries and moving on to the way technology has influenced communication in France and the wider French speaking world. 2. Completing the study of “patrimoine” and learning about the subjunctive. 3. Continuing their study of the set text “No et Moi”.
Content and skills:	Listening, speaking, reading and writing on the set topics. Developing the skill of writing résumés of listening and reading texts.
Assessment:	1. Weekly vocabulary tests. 2. Exercises on grammar rules and their implementation in longer writing 3. Further short character studies of main characters in the novel.
Stretch and challenge:	Students can research: 1. An aspect of modern technology in a French speaking country. 2. A specific aspect of francophone heritage and its importance for the francophone culture. 3. The author of the set text, Delphine de Vigan.

Further Maths

Topics / tasks:	Pure Core Mathematics - Sequences and series Statistics: - Permutations and combinations - Discrete random variables	Mechanics: - Work, energy and power Additional Pure Mathematics: - Number theory - Group theory
Content and skills:	Applications and modelling. Interpretations of Results. Proof of Results Examination technique Problem solving Self-evaluation and study skills.	
Assessment:	- Pure Core mock exam - Regular Homework assignments	
Stretch and challenge:	UKMT Maths Challenges: British Mathematical Olympiad Round 1 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 & Landscapes	Contemporary Urban Environments
Content and skills:	The characteristics, factors and processes involved in the development of landforms and landscapes of coastal erosion and deposition, in particular cliffs and wave cut platforms and cliff profile features (caves, arches and stacks), beaches, spits, tombolos, offshore bars, barrier beaches and islands, sand dunes and mud flats. The causes and impacts of eustatic, isostatic and tectonic sea level change, especially major changes in sea level in the last 10,000 years as well as the nature and causes of recent and predicted climate change and the potential impact on coasts.	Urban morphology, new urban landscapes and the concept of the post-modern western city. Then focusing on economic and social inequality in contrasting urban areas as well as strategies to manage these issues. The impact of urban forms and processes on local climate and weather, including the urban heat island effect, the frequency and intensity of precipitation, fog, thunderstorms and wind. Air quality and urban drainage in contemporary urban environments.
Assessment:	Completing a range of exam style questions.	Completing a range of exam style questions.
Stretch and challenge:	Go to the AQA A level Geography website and download past copies of A level paper 1, practice exam questions and check answers using the mark schemes. Reading widely around the topic using the guide provided at the start of the year as well as articles shared on Teams.	Go to the AQA A level Geography website and download past copies of A level paper 2, practice exam questions and check answers using the mark schemes. Reading widely around the topic using the guide provided at the start of the year as well as articles shared on Teams.

German

Topics / tasks:	The topic of Family life The film - <i>Das Leben der Anderen</i> Grammar
Content and skills:	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.
Stretch and challenge:	Learn more vocabulary on the topic of family, practise German grammar and write additional essays on the film topic.

Government and Politics

Topics / tasks:	3.1.1 The government of the UK
Content and skills:	3.1.1.1 The nature and sources of the British Constitution; 3.1.1.2 The structure and role of Parliament; 3.1.1.3 The Prime Minister and cabinet; 3.1.1.4 The judiciary; 3.1.1.5 Devolution; 3.1.2.5 The European Union
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/

History

Topics / tasks:	A depth study into Winston Churchill	The development and evolution of the French Revolution
Content and skills:	Students will develop their critical analysis and evaluative skills through continuing to study Churchill, in particular his role as a war time leader, his relationship with other foreign powers, and the 1945 election.	Students will develop their analytical and evaluator skills by investigating the changes brought about in France following the French Revolution. They will judge the extent of change, the gradual radicalisation of the revolution, the execution of the King and the development and resolution of the Reign of Terror.
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, <i>A History of Modern Britain</i> Paul Addison, <i>The Road to 1945</i> Andrew Roberts, <i>Churchill: Walking With Destiny</i> Leo McKinstry, <i>Atlee and Churchill: Allies in War, Adversaries in Peace</i>	Reading: William Doyle, <i>The French Revolution: A Very Short Introduction</i> Simon Schama, <i>Citizens</i> Christopher Hibbert, <i>The French Revolution</i> Audio: Series 3 of Mike Duncan's <i>Revolutions Podcast</i> 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:	Clauses using subjunctives, participles & indirect statement; starting to read unadapted prose texts
Content and skills:	How the "sequence of tenses" works in complex sentences; how to analyse the structure of a sentence, working both into and out of Latin; how to tackle the process of translating Latin prose into idiomatic English. Set text: extracts from Cicero's Pro Cluentio.
Assessment:	A comprehension assessment, in addition to regular grammar and vocabulary tests.
Stretch and challenge:	Reading about Cicero and Rome in the first century BC as context for our prose set text.

Maths

Topics / tasks:	Kinematics: travel graphs, equations of constant acceleration Dynamics: Newton's Laws of Motion, resolving forces, connected particles Hypothesis testing for the proportion of a binomial distribution Graphs and functions: reciprocal graphs, exponential graphs, transformations of graphs Logs and Exponentials: definition of logarithms, laws of logarithms, exponential equations, exponential modelling, reduction to linear form
Content and skills:	• Revision and consolidation of previously learned skills • Extension of skills to unfamiliar contexts • Reasoning and problem-solving skills
Assessment:	Mock examination. Weekly homework tasks.
Stretch and challenge:	• Completing enrichment tasks on www.nrich.maths.org • Further reading and research

Music

Topics / tasks:	AOS1: Mozart Opera: Background AOS1: Baroque Concerto: Vivaldi AOS5: Jazz: Armstrong & Ellington Performance: Recording 1 Composition: Harmonic & Melodic Techniques
Content and skills:	Contextual and historical information and listening and analysis skills. Techniques of chord construction, voice leading and melodic shape Selecting repertoire and honing performance skills
Assessment:	Regular exam-style listening questions and longer passages of written prose analysis Harmony exercises Performance reviews
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

Physics

Topics / tasks:	Module 3 – Forces and motion	Module 4 – Electrons, waves and photons
Content and skills:	• Free-fall and 'g' • Projectile motion • Mass and weight • Centre of mass • Free-body diagrams • Drag and terminal velocity • Moments and equilibrium • Couples and torques • Triangle of forces • Density and Pressure • Archimedes' principle	<u>Electrical circuits</u> • Analysing circuits • Internal resistance • Potential dividers • Sensing circuits <u>Waves</u> • Progressive waves • Wave properties • Reflection and refraction • Diffraction and polarisation • Intensity • Electromagnetic waves • Total internal reflection
Assessment:	Mock exam in December, short topic tests, 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 psychology students should be able to describe the three stages of learning. They should consider appropriate feedback for different stages of learning. Students should understand the causes of plateau and suggest solutions to overcome a learning plateau. Theories of learning. In physiology students should reinforce knowledge of muscular-skeletal system and applying these theories to analysis of movement. Also identify type of joints, articulating bones, joint actions at ankle, knee, hip, elbow and shoulder. In socio-cultural topics students will consider the changing role of women in sport via a consideration of their involvement in football, tennis and athletics. They will also understand how the “golden triangle” influences the development of sport.
Assessment:	Everlearner checkpoint tests and long answer questions and exam style questions.
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 in relation to topics covered.

Psychology

Topics / tasks:	Topic 3 - Psychopathology - Phobias, depression & OCD Topic 2 - Continue with Research Methods
Content and skills:	Topic 3 - Definitions of abnormality, Behavioural, cognitive & emotional symptoms of phobias, OCD and depression. Behaviourist explanation and treatments of Phobias, Cognitive explanation and treatment of depression, Biological explanation and treatment of OCD. Topic 2 - carrying out scientific investigations using a range of research methods.
Assessment:	Written assignments, multi choice questions and a mock assessment of Topic 2 & 3
Stretch and challenge:	Using the text book: Chapters 5 & 6

Sociology

Topics / tasks:	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; Ethnicity and education, processes within schools; Educational policy and schools
Assessment:	Written assignments
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:	Unit 5 - La Identidad regional de España. The film Volver. Unit 2 – el ciberespacio which will include the influence of the internet, smartphones, and the impact of social networks. Continued revision of GCSE Grammar and learning of new grammar in accordance with the AQA AS grammar textbook.
Content and skills:	New grammar will include using the present subjunctive of regular verbs, the perfect tense in the subjunctive and the use of numerals. Idiomatic expressions and opinion giving and identifying pros and cons. Developing listening, reading, writing, speaking and translation skills. Developing summary writing skills with increased focus on listening summaries.
Assessment:	An assessment on la Influencia de los idolos, covering writing, translation, listening and reading. Continued formative assessment on los valores tradicionales y modernos, to include a reading and listening summaries, translation exercises and reading comprehension, along with regular vocabulary tests. Summative assessment of Paper 1 skills, covering the topics from Unit 1 & 2.
Stretch and challenge:	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. Following current affairs in science and technology in Spanish speaking media. Completing interactive activities on Kerboodle (these are auto marking).