



Year 12 topics to be covered - Autumn Term 2021/22

Subject	Topics to be studied this term	Recommended preparation
Art	<ul style="list-style-type: none"> ● Underneath(project with FMV) ● Facade (project with RPT) ● Skills based workshops- etching,advanced colour mixing, dramatic mono prints, mark making, photography and mixed media ● London visit- learning how to navigate London to get the most out of your visit and show a massive amount of current art (hopefully -covid h+S issues) ● Taking risks,working large 	<ul style="list-style-type: none"> ● independent gallery visits(or virtual tours) ● Building up their own equipment ● Watching Art programmes - portrait artist of the year, landscape artist of the year etc ● Looking at a range of websites to see current work - Pinterest,demilked etc ● Explore, experiment, lookup at the world around ● Take photographs everywhere you go , think like an artist
Biology	<ul style="list-style-type: none"> ● Cytology ● Biological Molecules ● Exchange and transport ● The heart, CVD and Diet 	<ul style="list-style-type: none"> ● Use of the textbook ● SENECA learning ● WWW.spolem.org.uk ● Freesciencelesson youtube channel
Business Studies	<p>1.5 ENTREPRENEURS AND LEADERS</p> <ul style="list-style-type: none"> ● 1.5.1 Role of an entrepreneur ● 1.5.2 Entrepreneurial motives and characteristics ● 1.5.3 Business objectives ● 1.5.4 Forms of business ● 1.5.5 Business choices ● 1.5.6 Moving from entrepreneur to leader <p>1.1 MEETING CUSTOMER NEEDS</p> <ul style="list-style-type: none"> ● 1.1.1 The market ● 1.1.2 Market research ● 1.1.3 Market positioning <p>1.2 THE MARKET</p> <ul style="list-style-type: none"> ● 1.2.1 Demand ● 1.2.2 Supply ● 1.2.3 Markets ● 1.2.4 Price elasticity of demand ● 1.2.5 Income elasticity of demand 	<ul style="list-style-type: none"> ● Read chapter for text book ahead of lesson - Use PLC ● SENECA learning tasks ● Complete relevant pages on A level Knowledge book
Chemistry	<ul style="list-style-type: none"> ● amount of substance ● Redox 	<ul style="list-style-type: none"> ● using textbook - summary questions ● Edexcel revision exam book questions

	<ul style="list-style-type: none"> ● Atomic structure ● Bonding 	<ul style="list-style-type: none"> ● Physics and maths tutor past papers ● Seneca
Computer Science	<ul style="list-style-type: none"> ● Unit 1 - Components of a computer Chapter 1-6 ● Unit 3 - Software development Chapter 11-14 ● Unit 5 Networks and Web Technologies 	<ul style="list-style-type: none"> ● Read ahead and revision from textbook (OCR AS level and A level Computer Science) ● Recap of all GCSE topics ● Practice papers from OCR with marking scheme ● Make notes and annotate as required
Economics	<ul style="list-style-type: none"> ● Introductory Concepts ● Demand and Supply ● Elasticity ● Costs and Revenues ● Economies of Scale ● Objectives of Firms ● Market Structures ● Market Failure ● Government Failure 	<ul style="list-style-type: none"> ● Recap over any of these topics that were covered in Years 10 and 11 if GCSE was taken ● Read ahead from the AS textbook on the relevant topics ● Read ahead from any revision guides e.g. CGP on these topics ● Read news articles related to these topics ● Read magazine and journal articles related to these topics
English Literature	<ul style="list-style-type: none"> ● 'Hamlet' ● Defining American Literature 1880-1940 	<ul style="list-style-type: none"> ● Review and reflect on learning by completing detailed Drama Logs for each scene of 'Hamlet'. ● Use the recommended study guides to support your independent exploration of the play. ● Regularly watch how a scene from 'Hamlet' has been adapted in a theatre production - use the Adaptation section of the 'Hamlet' GC. ● Read a wide range of American prose from 1880-1940. ● Start compiling a detailed list of key features and trends that typifies American literature from this time. ● Re-read 'The Great Gatsby' identifying and annotating the above features when you find them.

Food Science and Nutrition Level 3 Certificate	<ul style="list-style-type: none"> ● Complex practical skills ● Food hygiene legislation ● Food safety legislation ● Allergens ● Sources and structure of nutrients 	<ul style="list-style-type: none"> ● Watch at least one cooking show each week ● Read chapters 1-5 of the textbook ● Read over notes from last year if you studied Food Prep & Nutrition at GCSE
Further Maths	<p>AS Mathematics topics:</p> <ul style="list-style-type: none"> ● Algebra and functions ● Coordinate Geometry ● Further Algebra ● Trigonometry ● Vectors ● Differentiation ● Integration ● Exponentials and Logs ● Statistical Sampling ● Data presentation and interpretation ● Probability ● Statistical Distributions ● Statistical Hypothesis Testing ● Quantities and Units in Mechanics ● Kinematics ● Forces and Newton's Law <p>A2 Mathematics:</p> <ul style="list-style-type: none"> ● Algebra 	<ul style="list-style-type: none"> ● Review pre-requisite GCSE information including: surds, factorising, solving simultaneous equations, index laws, inequalities, solving quadratic equations, circle theorems, equations of straight lines, shapes of standard graphs, function notation, expanding brackets, trigonometry in right angled and non-right angled triangles, trigonometric graphs, bearings, graph transformations
Geography	<ul style="list-style-type: none"> ● Topic 1: Tectonic Processes and Hazards <ul style="list-style-type: none"> - Explore why some locations are more at risk from tectonic hazards. - Investigate why some tectonic hazards develop into disasters. - Identify how successful the management of tectonic hazards and disasters are globally. ● Topic 3: Globalisation <ul style="list-style-type: none"> - Identify the causes of globalisation and explore why it has accelerated in recent decades. - Investigate the impacts of globalisation for 	<ul style="list-style-type: none"> ● Recap GCSE knowledge of hazards - this is the basis of the content and this knowledge will be expanded upon in this topic. ● Read new outlets to keep up to date with global current affairs.

	<p>countries, different groups of people and cultures and the physical environment.</p> <ul style="list-style-type: none"> - Identify the consequences of globalisation for global development and the physical environment and investigate how different players should respond to its challenges? 	<ul style="list-style-type: none"> ● Read a daily newspaper and keep up to date with current affairs through other newspaper outlets.
German	<ul style="list-style-type: none"> ● The changing role of the Family, partnerships and marriage ● The digital world ● Youth culture, fashion, music and TV ● Festivals and traditions ● Literature: The Reader ● Goodbye Lenin 	<ul style="list-style-type: none"> ● Read “ The Reader “ in English and German and make notes ● Watch the film Goodbye Lenin and make notes ● Always read ahead of each chapter before each lesson.
Government & Politics	<ul style="list-style-type: none"> ● Introduction to A-Level Politics ● Political Parties ● Democracy & representation 	<ul style="list-style-type: none"> ● Read at least one newspaper or verified news website daily. ● Download the Guardian, Times or BBC politics podcast ● Complete lesson ready tasks
History	<ul style="list-style-type: none"> ● USA <ul style="list-style-type: none"> ○ Introduction to American History ○ Truman: Domestic and Foreign Policy ● Tudors <ul style="list-style-type: none"> ○ Legacy of the Wars of the Roses ○ Henry VII; Establishing a Dynasty 	<ul style="list-style-type: none"> ● Use the department reading list to go deeper into the topic. ● Listen to “critical conversations” Podcast for background on USA. ● Listen to History Extra, IN our Time & History Hit Podcasts relevant to both topics. ● Complete a Futurelearn course relevant to the USA or Tudors
IT	<p>→ Unit 1 - Information Technology Systems - Externally assessed exam</p> <ul style="list-style-type: none"> → Digital devices → Uses of digital devices 	<ul style="list-style-type: none"> ● Read ahead from Student book (Pearson BTEC National Information Technology) ● Recap of all GCSE topics covered in year 10 and 11

	<ul style="list-style-type: none"> → Input and Output devices → Accessibility devices → Manual and automatic data processing → Operating systems → Choices of OS → Computer software in an IT system → Open source and proprietary operating systems and softwares → The features of common file types and formats → Emerging technologies → Implications of emerging technologies on the personal use of IT system ● Unit 2 - Creating Systems to Manage Information <ul style="list-style-type: none"> → Relational database management systems → Manipulating data structures and data in relational databases → Normalisation 	<ul style="list-style-type: none"> ● Practice worksheet for unit 1 exam ● Self assessment using mark schemes from Edexcel ● Make notes and annotate as required
Mathematics	<ul style="list-style-type: none"> ● Unit 1: Algebra and functions- index laws, surds, quadratic functions, simultaneous equations, linear and quadratic inequalities ● Unit 2: Coordinate Geometry- equation of a straight line, equation of a circle, sketching curves, transforming functions ● Unit 3: Further Algebra: manipulating polynomials, mathematical proofs, binomial expansion ● Unit 4: Trigonometry- sine and cosine rules, trigonometric graphs, trigonometric identities, solving trigonometric equations ● Unit 6: Differentiation- differentiate from first and second principles, sketch functions and gradient functions, application of differentiated functions ● Unit 7: Integration- fundamental theorem of calculus, integrating functions, definite integrals, area under a curve and between two functions 	<ul style="list-style-type: none"> ● Review pre-requisite GCSE information including: surds, factorising, solving simultaneous equations, index laws, inequalities, solving quadratic equations, circle theorems, equations of straight lines, shapes of standard graphs, function notation, expanding brackets, trigonometry in right angled and non-right angled triangles, trigonometric graphs, bearings, graph transformations,
Media	<ul style="list-style-type: none"> ● Introduction to Media Studies & the key concepts: <ul style="list-style-type: none"> - Language 	<ul style="list-style-type: none"> ● Use of textbook ● Work through home learning activities for wider media consumption

	<ul style="list-style-type: none"> - Representation - Audience - Industries <ul style="list-style-type: none"> ● Advertising and Marketing - Component 1 Section A & B <ul style="list-style-type: none"> - Tide (1955) - Kiss of the Vampire (1963) - Wateraid (2015) ● Newspapers - Component 1 Section A & B <ul style="list-style-type: none"> - The Times (2018) - Daily Mirror (2018) ● Magazines - Component 2 Section B <ul style="list-style-type: none"> - The Big Issue (2016) 	<ul style="list-style-type: none"> ● Consume newspapers independently ● Ensure all homework deadlines are met ● Stay up to date with current issues relating to global news affairs
Music	<p>Group 1</p> <ul style="list-style-type: none"> ● Harmony ● Aural Listening Skills ● Wider Listening <p>Group 2</p> <ul style="list-style-type: none"> ● 20th Century Music: <ul style="list-style-type: none"> - Impressionism - Expressionism - Neo-classicism - Debussy - Poulenc 	<p>All</p> <p>Use ABRSM Grade 6, 7 and 8 theory/aural videos on Youtube to revise chords and harmony.</p> <p>Complete a wider listening diary</p> <p>Use PLCS to respond to listening tasks</p> <p>Request any extra work if needed</p> <p>Read the spec and markschemes to become familiar with how to answer questions using subject specific words</p> <p>Research around the topics, focusing on key definitions</p> <p>Complete all aspects of online learning</p> <p>Consume NEW STYLES OF MUSIC EVERY DAY:</p> <p>Listen to Jazz FM, Classic FM, BBC6 Music, look for music documentaries on BBC iPlayer, Sky Arts or Youtube</p>
OCR Sport	<ul style="list-style-type: none"> ● Unit 8 - Organising an event ● Unit 2 - Sports coaching and leadership ● Unit 11 - Sport for specific groups ● Unit 5 - Performance analysis ● Unit 18 - Practical performance 	<ul style="list-style-type: none"> ● Ensure deadlines are met ● Take time in free periods to observe PE teachers teaching a range of classes ● Research sports events, the structure of events and how they are organised. ● Collect video evidence playing either individual or team sport. ● Think and prepare specific activities and drills that you could use when teaching the year 7's.
PE	<ul style="list-style-type: none"> ● Sports Psychology 	<ul style="list-style-type: none"> ● Use textbook to read ahead on topics

	<ul style="list-style-type: none"> ○ Individual differences ○ Motivation ○ Arousal ○ Social facilitation ● Physiology <ul style="list-style-type: none"> ○ Respiratory system ○ Diet and Nutrition ○ Training methods - Aerobic training ● Socio-Cultural Issues <ul style="list-style-type: none"> ○ Characteristics of sport in 21st Century ○ Modern Olympic Games ○ Hosting Global Sporting Events 	<ul style="list-style-type: none"> ● Stay up to date on current issues in sport ● Complete home learning tasks set and request questions for topics.
Photography	<ul style="list-style-type: none"> ● Buildings and Structures ● Portraits ● Light and Landscape ● Still Life ● Personal Project ● Skills based workshops- photography and mixed media ● London visit- learning how to navigate London to get the most out of your visit and show a massive amount of current art (hopefully -covid h+S issues) 	<ul style="list-style-type: none"> ● independent gallery visits(or virtual tours) ● Building up their own equipment ● Watching programmes - photographer of the year award, portrait artist of the year etc ● Looking at a range of websites to see current work - Pinterest,demilked, behance etc ● Explore, experiment, lookup at the world around ● Take photographs everywhere you go , think like a photographer
Physics	<ul style="list-style-type: none"> ● Matter & Radiation ● Quarks & Leptons ● Electric current ● DC circuits ● Forces in Equilibrium ● On The Move 	<ul style="list-style-type: none"> ● Complete all pre-reading (read the next double page before attending the lesson) ● Complete the relevant questions from your white exam practise books ● Complete lots of practise questions using physicsandmathstutor.com using the 4 pen method ● Have a go at the problem solving questions on Isaac Physics ● Enjoy Physics! USE our 'reading list' to find books to read, podcasts to listen to or shows to watch. https://docs.google.com/document/d/1_XiAvBvf1RRLXaZ2dV3HAtitnW5noqzx-AM_-HK-Xkk/edit
Product Design	<p>Technical Principles [TP] Design & Make Principles [DMP] TERM 1:1</p>	<ul style="list-style-type: none"> ● Ensure deadlines are met ● Take time in free periods to revise and reflect on topics taught and learnt

	<ul style="list-style-type: none"> ● Materials & their applications [TP] ● Testing Materials [TP] <p>Performance characteristics of materials [TP]</p> <ul style="list-style-type: none"> ● Papers & Boards ● Composites ● Polymer based sheet & film ● Biodegradable polymers ● Woods ● Smart & Modern Materials ● Metals ● Polymers <p>TERM 1:2 [DMP]</p> <ul style="list-style-type: none"> ● Design methods and processes ● Design theory ● Technology & cultural changes ● Design processes ● Critical analysis & evaluation ● Selecting appropriate tools, equipment & process ● Accuracy in design & manufacture 	<ul style="list-style-type: none"> ● Use textbook to read ahead on topics ● Stay up to date on current issues in DT ● Complete home learning tasks set ● Complete past paper style questions to get a feel for the terminology and responses required. ● Do a range of questions from 1 mark to 12 mark questions ● Read the examiners commentaries ● Follow the PLC and Trackers to help with your independent studies.
Psychology	<ul style="list-style-type: none"> ● Research Methods ● Social influence ● Memory 	<ul style="list-style-type: none"> ● Reading the relevant chapter in advance of the lesson as advised. Completing exam question on AQA website ● https://www.aqa.org.uk/subjects/psychology/as-and-a-level/psychology-7181-7182/as-session-resources