



## Year 12 topics to be covered - Autumn Term 2020/21

Subject	Topics to be studied this term	Recommended preparation
<b>Art</b>	<ul style="list-style-type: none"> <li>● urban stories</li> <li>● Skills based workshops- etching, advanced colour mixing, dramatic mono prints, mark making, photography and mixed media</li> <li>● 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)</li> <li>● Taking risks, working large</li> </ul>	<ul style="list-style-type: none"> <li>● independent gallery visits(or virtual tours)</li> <li>● Building up their own equipment</li> <li>● Watching Art programmes - portrait artist of the year, landscape artist of the year etc</li> <li>● Looking at a range of websites to see current work - Pinterest, demilked etc</li> <li>● Explore, experiment, lookup at the world around</li> <li>● Take photographs everywhere you go , think like an artist</li> </ul>
<b>Biology</b>	<ul style="list-style-type: none"> <li>● Cytology</li> <li>● Biological Molecules</li> <li>● Exchange and transport</li> <li>● The heart, CVD and Diet</li> </ul>	<ul style="list-style-type: none"> <li>● Use of the textbook</li> <li>● SENECA learning</li> <li>● <a href="http://WWW.spolem.org.uk">WWW.spolem.org.uk</a></li> <li>● Freesciencelesson youtube channel</li> </ul>
<b>Business Studies</b>	<ul style="list-style-type: none"> <li>● <b>1.1 MEETING CUSTOMER NEEDS BBS</b> <ul style="list-style-type: none"> <li>1.1.1 The market</li> <li>1.1.2 Market research</li> <li>1.1.3 Market positioning</li> </ul> </li> <li>● <b>1.1 THE MARKET BBS</b> <ul style="list-style-type: none"> <li>1.2.1 Demand</li> <li>1.2.2 Supply</li> <li>1.2.3 Markets</li> <li>1.2.4 Price elasticity of demand</li> <li>1.2.5 Income elasticity of demand</li> </ul> </li> <li>● <b>1.5 ENTREPRENEURS AND LEADERS RRM</b> <ul style="list-style-type: none"> <li>● 1.5.1 Role of an entrepreneur</li> <li>● 1.5.2 Entrepreneurial motives and characteristics</li> <li>● 1.5.3 Business objectives</li> <li>● 1.5.4 Forms of business</li> <li>● 1.5.5 Business choices</li> <li>● 1.5.6 Moving from entrepreneur to leader</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Read chapter for text book ahead of lesson - Use PLC</li> <li>● SENECA learning</li> </ul>
<b>Chemistry</b>	<ul style="list-style-type: none"> <li>● amount of substance</li> <li>● Redox</li> <li>● Atomic structure</li> <li>● Bonding</li> </ul>	<ul style="list-style-type: none"> <li>● using textbook - summary questions</li> <li>● Edexcel revision exam book questions</li> <li>● Physics and maths tutor past papers</li> <li>● Seneca</li> </ul>

<b>Computer Science</b>	<ul style="list-style-type: none"> <li>● Unit 1 - Components of a computer Chapter 1-6</li> <li>● Unit 3 - Software development Chapter 11-14</li> <li>● Unit 4 - Exchanging data Chapter 15-20</li> <li>● Unit 5 - Network and Web technologies Chapter 21-27</li> <li>● Unit 9 - Legal, ethical, moral and cultural issues Chapter 44-46</li> </ul>	<ul style="list-style-type: none"> <li>● Read ahead and revision from textbook (OCR AS level and A level Computer Science)</li> <li>● Recap of all GCSE topics covered in year 10 and 11</li> <li>● Practice papers from OCR with marking scheme</li> <li>● Make notes and annotate as required</li> </ul>
<b>Economics</b>	<ul style="list-style-type: none"> <li>● Introductory Concepts</li> <li>● Demand and Supply</li> <li>● Macro-economic objectives</li> <li>● GDP</li> <li>● Circular Flow of Income</li> <li>● Aggregate Demand</li> <li>● Aggregate Supply</li> <li>● The Business Cycle</li> <li>● Unemployment</li> <li>● Inflation</li> </ul>	<ul style="list-style-type: none"> <li>● Recap over any of these topics that were covered in Years 10 and 11 if GCSE was taken</li> <li>● Read ahead from the AS textbook on the relevant topics</li> <li>● Read ahead from any revision guides e.g. CGP on these topics</li> <li>● Read news articles related to these topics</li> <li>● Read magazine and journal articles related to these topics</li> </ul>
<b>English Literature</b>	<ul style="list-style-type: none"> <li>● 'Hamlet'</li> <li>● Defining American Literature 1880-1940</li> </ul>	<ul style="list-style-type: none"> <li>● Review and reflect on learning by completing detailed Drama Logs for each scene of 'Hamlet'.</li> <li>● Use the recommended study guides to support your independent exploration of the play.</li> <li>● Regularly watch how a scene from 'Hamlet' has been adapted in a theatre production - use the Adaptation section of the 'Hamlet' GC.</li> <li>● Read a wide range of American prose from 1880-1940.</li> <li>● Start compiling a detailed list of key features and trends that typifies American literature from this time.</li> <li>● Re-read 'The Great Gatsby' identifying and annotating the above features when you find them.</li> </ul>

<b>Food Science and Nutrition Level 3 Certificate</b>	<ul style="list-style-type: none"> <li>● Complex practical skills</li> <li>● Food hygiene legislation</li> <li>● Food safety legislation</li> <li>● Allergens</li> <li>● Sources and structure of nutrients</li> </ul>	<ul style="list-style-type: none"> <li>● Watch at least one cooking show each week</li> <li>● Read chapters 1-5 of the textbook</li> <li>● Read over notes from last year if you studied Food Prep &amp; Nutrition at GCSE</li> </ul>
<b>Further Maths</b>	<ul style="list-style-type: none"> <li>● Unit 1: Algebra and functions</li> <li>● Unit 2: Coordinate Geometry</li> <li>● Unit 3: Further Algebra</li> <li>● Unit 4: Trigonometry</li> <li>● Unit 5: Vectors</li> <li>● Unit 6: Differentiation</li> <li>● Unit 7: Integration</li> <li>● Unit 8: Exponentials and Logs</li> <li>● Unit 9: Statistical Sampling</li> <li>● Unit 10: Data presentation and interpretation</li> <li>● Unit 11: Probability</li> <li>● Unit 12: Statistical Distributions</li> <li>● Unit 13: Statistical Hypothesis Testing</li> <li>● Unit 14: Quantities and Units in Mechanics</li> <li>● Unit 15: Kinematics 1 (constant acceleration)</li> <li>● Unit 16: Kinematics 2 (variable acceleration)</li> <li>● Unit 17: Forces and Newton's Law</li> <li>● Unit A: Series and sequences</li> <li>● Unit B: Proofs</li> <li>● Unit C: Algebraic and partial fractions</li> </ul>	
<b>Geography</b>	<ul style="list-style-type: none"> <li>● Topic 1: Tectonic Processes and Hazards <ul style="list-style-type: none"> <li>- Explore why some locations are more at risk from tectonic hazards.</li> <li>- Investigate why some tectonic hazards develop into disasters.</li> <li>- Identify how successful the management of tectonic hazards and disasters are globally.</li> </ul> </li> <li>● Topic 3: Globalisation <ul style="list-style-type: none"> <li>- Identify the causes of globalisation and explore</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Recap GCSE knowledge of hazards - this is the basis of the content and this knowledge will be expanded upon in this topic.</li> <li>● Read new outlets to keep up to date with global current affairs.</li> </ul>

	<p>why it has accelerated in recent decades.</p> <ul style="list-style-type: none"> <li>- Investigate the impacts of globalisation for countries, different groups of people and cultures and the physical environment.</li> <li>- Identify the consequences of globalisation for global development and the physical environment and investigate how different players should respond to its challenges?</li> </ul>	<ul style="list-style-type: none"> <li>● Read a daily newspaper and keep up to date with current affairs through other newspaper outlets.</li> </ul>
<b>German</b>	<ul style="list-style-type: none"> <li>● The changing role of the Family, partnerships and marriage</li> <li>● The digital world</li> <li>● Youth culture, fashion, music and T.V</li> <li>● Festivals and traditions</li> <li>● Literature: The Reader</li> <li>● Goodbye Lenin</li> </ul>	<ul style="list-style-type: none"> <li>● Read “ The Reader “ in English and German and make notes</li> <li>● Watch the film Goodbye Lenin and make notes</li> <li>● Always read ahead of each chapter before each lesson.</li> </ul>
<b>Government &amp; Politics</b>	<ul style="list-style-type: none"> <li>● Introduction to A-Level Politics</li> <li>● Political Parties</li> <li>● Democracy &amp; representation</li> </ul>	<ul style="list-style-type: none"> <li>● Read at least one newspaper or verified news website daily.</li> <li>● Download the Guardian, Times or BBC politics podcast</li> <li>● Complete lesson ready tasks</li> </ul>
<b>History</b>	<ul style="list-style-type: none"> <li>● USA <ul style="list-style-type: none"> <li>○ Introduction to American History</li> <li>○ Truman: Domestic and Foreign Policy</li> </ul> </li> <li>● Tudors <ul style="list-style-type: none"> <li>○ Legacy of the Wars of the Roses</li> <li>○ Henry VII; Establishing a Dynasty</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Use the department reading list to go deeper into the topic.</li> <li>● Listen to “critical conversations” Podcast for background on USA.</li> <li>● Listen to History Extra, IN our Time &amp; History Hit Podcasts relevant to both topics.</li> <li>● Complete a Futurelearn course relevant to the USA or Tudors</li> </ul>

<p><b>IT</b></p>	<ul style="list-style-type: none"> <li>→ Unit 1 - Information Technology Systems <ul style="list-style-type: none"> <li>- Externally assessed exam</li> <li>→ Digital devices</li> <li>→ Uses of digital devices</li> <li>→ Input and Output devices</li> <li>→ Accessibility devices</li> <li>→ Manual and automatic data processing</li> <li>→ Operating systems</li> <li>→ Choices of OS</li> <li>→ Computer software in an IT system</li> <li>→ Open source and proprietary operating systems and softwares</li> <li>→ The features of common file types and formats</li> <li>→ Emerging technologies</li> <li>→ Implications of emerging technologies on the personal use of IT system</li> </ul> </li> <li>• Unit 2 - Creating Systems to Manage Information <ul style="list-style-type: none"> <li>→ Relational database management systems</li> <li>→ Manipulating data structures and data in relational databases</li> <li>→ Normalisation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Read ahead from Student book (Pearson BTEC National Information Technology)</li> <li>• Recap of all GCSE topics covered in year 10 and 11</li> <li>• Practice worksheet for unit 1 exam</li> <li>• Self assessment using mark schemes from Edexcel</li> <li>• Make notes and annotate as required</li> </ul>
<p><b>Mathematics</b></p>	<ul style="list-style-type: none"> <li>• Unit 1: Algebra and functions- index laws, surds, quadratic functions, simultaneous equations, linear and quadratic inequalities</li> <li>• Unit 2: Coordinate Geometry- equation of a straight line, equation of a circle, sketching curves, transforming functions</li> <li>• Unit 3: Further Algebra: manipulating polynomials, mathematical proofs, binomial expansion</li> <li>• Unit 4: Trigonometry- sine and cosine rules, trigonometric graphs, trigonometric identities, solving trigonometric equations</li> <li>• Unit 6: Differentiation- differentiate from first and second principles, sketch functions and gradient functions, application of differentiated functions</li> <li>• Unit 7: Integration- fundamental theorem of calculus, integrating functions, definite integrals, area under a</li> </ul>	<ul style="list-style-type: none"> <li>• 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,</li> </ul>

	curve and between two functions	
<b>Media</b>	<ul style="list-style-type: none"> <li>● Introduction to Media Studies &amp; the key concepts: <ul style="list-style-type: none"> <li>- Language</li> <li>- Representation</li> <li>- Audience</li> <li>- Industries</li> </ul> </li> <li>● Advertising and Marketing - Component 1 Section A &amp; B <ul style="list-style-type: none"> <li>- Tide (1955)</li> <li>- Kiss of the Vampire (1963)</li> <li>- Wateraid (2015)</li> </ul> </li> <li>● Newspapers - Component 1 Section A &amp; B <ul style="list-style-type: none"> <li>- The Times (2018)</li> <li>- Daily Mirror (2018)</li> </ul> </li> <li>● Magazines - Component 2 Section B <ul style="list-style-type: none"> <li>- Vogue (1965)</li> <li>- The Big Issue (2016)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Use of textbook</li> <li>● Work through home learning activities for wider media consumption</li> <li>● Consume newspapers independently</li> <li>● Ensure all homework deadlines are met</li> <li>● Stay up to date with current issues relating to global news affairs</li> </ul>
<b>Music</b>	<p>Group 1</p> <ul style="list-style-type: none"> <li>● Harmony</li> <li>● Aural Listening Skills</li> <li>● Wider Listening</li> </ul> <p>Group 2</p> <ul style="list-style-type: none"> <li>● 20th Century Music: <ul style="list-style-type: none"> <li>- Impressionism</li> <li>- Expressionism</li> <li>- Neo-classicism</li> <li>- Debussy</li> <li>- Poulenc</li> </ul> </li> </ul>	<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>
<b>OCR Sport</b>	<ul style="list-style-type: none"> <li>● Unit 8 - Organising an event</li> <li>● Unit 2 - Sports coaching and leadership</li> <li>● Unit 11 - Sport for specific groups</li> <li>● Unit 5 - Performance analysis</li> <li>● Unit 18 - Practical performance</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure deadlines are met</li> <li>● Take time in free periods to observe PE teachers teaching a range of classes</li> <li>● Research sports events, the structure of events and how they are organised.</li> <li>● Collect video evidence playing either</li> </ul>

		<p>individual or team sport.</p> <ul style="list-style-type: none"> <li>● Think and prepare specific activities and drills that you could use when teaching the year 7's.</li> </ul>
<b>PE</b>	<ul style="list-style-type: none"> <li>● Sports Psychology <ul style="list-style-type: none"> <li>○ Individual differences</li> <li>○ Motivation</li> <li>○ Arousal</li> <li>○ Social facilitation</li> </ul> </li> <li>● Physiology <ul style="list-style-type: none"> <li>○ Respiratory system</li> <li>○ Diet and Nutrition</li> <li>○ Training methods - Aerobic training</li> </ul> </li> <li>● Socio-Cultural Issues <ul style="list-style-type: none"> <li>○ Characteristics of sport in 21st Century</li> <li>○ Modern Olympic Games</li> <li>○ Hosting Global Sporting Events</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Use textbook to read ahead on topics</li> <li>● Stay up to date on current issues in sport</li> <li>● Complete home learning tasks set and request questions for topics.</li> </ul>
<b>Photography</b>	<ul style="list-style-type: none"> <li>● Buildings and Structures</li> <li>● Portraits</li> <li>● Light and Landscape</li> <li>● Still Life</li> <li>● Personal Project</li> <li>● Skills based workshops- photography and mixed media</li> <li>● 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)</li> </ul>	<ul style="list-style-type: none"> <li>● independent gallery visits(or virtual tours)</li> <li>● Building up their own equipment</li> <li>● Watching programmes - photographer of the year award, portrait artist of the year etc</li> <li>● Looking at a range of websites to see current work - Pinterest,demilked, behance etc</li> <li>● Explore, experiment, lookup at the world around</li> <li>● Take photographs everywhere you go , think like a photographer</li> </ul>
<b>Physics</b>	<ul style="list-style-type: none"> <li>● Matter &amp; Radiation</li> <li>● Quarks &amp; Leptons</li> <li>● Quantum Phenomena</li> <li>● Forces in Equilibrium</li> <li>● On The Move</li> </ul>	<ul style="list-style-type: none"> <li>● Complete all pre-reading (read the next double page before attending the lesson)</li> <li>● Complete the relevant questions from your white exam practise books</li> <li>● Complete lots of practise questions using physicsandmathstutor.com using the 4 pen method</li> <li>● Have a go at the problem solving questions on Isaac Physics</li> <li>● Enjoy Physics! USe our 'reading list' to find books to read, podcasts to listen to or shows to watch.</li> </ul>

		<a href="https://docs.google.com/document/d/1_XiAvBvf1RRLXaZ2dV3HAtitnW5noqzx-AM-HK-Xkk/edit">https://docs.google.com/document/d/1_XiAvBvf1RRLXaZ2dV3HAtitnW5noqzx-AM-HK-Xkk/edit</a>
<b>Product Design</b>	<p><b>Technical Principles [TP]</b>  <b>Design &amp; Make Principles [DMP]</b>  <b>TERM 1:1</b></p> <ul style="list-style-type: none"> <li>● Materials &amp; their applications [TP]</li> <li>● Testing Materials [TP]</li> </ul> <p>Performance characteristics of materials [TP]</p> <ul style="list-style-type: none"> <li>● Papers &amp; Boards</li> <li>● Composites</li> <li>● Polymer based sheet &amp; film</li> <li>● Biodegradable polymers</li> <li>● Woods</li> <li>● Smart &amp; Modern Materials</li> <li>● Metals</li> <li>● Polymers</li> </ul> <p><b>TERM 1:2 [DMP]</b></p> <ul style="list-style-type: none"> <li>● Design methods and processes</li> <li>● Design theory</li> <li>● Technology &amp; cultural changes</li> <li>● Design processes</li> <li>● Critical analysis &amp; evaluation</li> <li>● Selecting appropriate tools, equipment &amp; process</li> <li>● Accuracy in design &amp; manufacture</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure deadlines are met</li> <li>● Take time in free periods to revise and reflect on topics taught and learnt</li> <li>● Use textbook to read ahead on topics</li> <li>● Stay up to date on current issues in DT</li> <li>● Complete home learning tasks set</li> <li>● Complete past paper style questions to get a feel for the terminology and responses required.</li> <li>● Do a range of questions from 1 mark to 12 mark questions</li> <li>● Read the examiners commentaries</li> <li>● Follow the PLC and Trackers to help with your independent studies.</li> </ul>
<b>Psychology</b>	<ul style="list-style-type: none"> <li>● Research Methods</li> <li>● Social influence</li> <li>● Memory</li> </ul>	<ul style="list-style-type: none"> <li>● Reading the relevant chapter in advance of the lesson as advised. Completing exam question on AQA website</li> <li>● <a href="https://www.aqa.org.uk/subjects/psychology/as-and-a-level/psychology-7181-7182/assessment-resources">https://www.aqa.org.uk/subjects/psychology/as-and-a-level/psychology-7181-7182/assessment-resources</a></li> </ul>