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Aim High Progress Study Programme _ (Year 12) -December _2021

Subject	Focus	Activities	Useful website
Arabic	TOPIC: مقال الاستهتار برهان الممل Learning objectives: - أن يحلل المقال . - أن يقارن بين حياة المستهتر والجاد . - أن يقترح حلولاً للحد من مشكلة الاستهتار .	مقارنة بين المستهتر والجاد - كتابة موضوع عن التغلب على الاستهتار - دور الإمارات في اسعاد الناس	https://www.youtube.com/watch?v=ZyeQFg_A3yI
Islamic Studies (Arabs)	حديث الافك – TOPIC: Learning objectives: ن يستنتج بعض أحكام الايات أن يبين الآثار السلبية للشائعات أن يستنتج فضل أم المؤمنين عائشة	حفظ سورة النور يبحث عن أخطار الشائعات على الفرد والمجتمع كتب بحثاً عن حديث الافك اكتب بحثاً عن دورك في القضاء على الشائعات	https://www.youtube.com/watch?v=wp6Zk8pCNBI



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<p>Islamic Studies</p> <p>Non Arabs</p>	<p>TOPIC: THE PROPHET'S METHADODOLOGY IN HEALTHCARE</p> <p>Learning objectives:</p> <ul style="list-style-type: none">▪ To Comprehend the importance of being healthy in multiple areas in our lives▪ (Referencing Quran ,Ahadeeth day to day life and Seerah)	<p>Create a video appreciating the efforts of U.A.E government to fight with covid-19 and how did they manage to give facilities all of his residents.</p>	<p>https://www.youtube.com/watch?v=GKnI72rRKow</p>
<p>Chemistry</p>	<p><u>Chemical Bonding</u></p> <ul style="list-style-type: none">• Describe the different types of bonding based using 'dot and cross' diagram• Explain the shapes of, and bond angles in molecules using electron-pair repulsion theory• Describe covalent bonding in terms of orbital overlap including the concept of hybridisation• Explain the term bond energy, bond length, and bond polarity• Describe intermolecular forces based on permanent and induced	<p>Activity: Practice drawing dot-and-cross diagrams for ionic compounds as well as covalent compounds</p> <ul style="list-style-type: none">• Make a power-point presentation to explain VSEPR theory as well as σ and π bonds• List at least 10 molecules with their shapes and bond angles• Research on hydrogen bonding as well as metallic bonding	<p>https://www.exam-mate.com/pastpapers/a_level_cambridge/?subject=50&years=&seasons=&paper=&zone=</p>



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	<p>dipoles, hydrogen bonding and metallic bonding</p> <p><u>States of Matter</u></p> <ul style="list-style-type: none">• State the basic assumptions of the kinetic theory as applied to ideal gases• State and use the general gas equation $pV = nRT$ in calculations• Describe the lattice structures of crystalline solids including ionic, simple molecular, giant molecular	<p>Activity:</p> <ul style="list-style-type: none">• Design a quiz using Kahoot based on kinetic theory as applied to gases (to include – conditions necessary for gas to approach ideal behaviour and limitations of ideality) <p>Practice calculations based on ideal gas equations</p>	<p>https://www.physicsandmathstutor.com/past-papers/a-level-chemistry/</p>
Biology	<p>1. <u>Cell structure:</u></p> <ul style="list-style-type: none">• To calculate the linear magnifications of drawings, photomicrographs and electron micrographs.• To distinguish between resolution and magnification, with reference to light microscopy and electron microscopy. <p>2. Enzymes:</p>	<ul style="list-style-type: none">• Identifying tissues and drawing low power plan diagrams of TS of a leaf, stem or root can make a good introduction to the use of a microscope.• Calculation of magnification of drawings made from microscope slides.	<p>https://youtu.be/brb-Qy7KCYc</p> <p>https://alevelnotes.com/Magnification/106</p> <p>https://alevelnotes.com/Biological-Molecules/49</p> <p>https://revisionworld.com/a2-level-level-revision/biology-level-revision/biological-molecules</p> <p>http://www.slideshare.net/mrexham/a-level-biology-biological-molecules</p>



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	<ul style="list-style-type: none">• Explain the effects of reversible inhibitors, both competitive and non-competitive, on the rate of enzyme activity.• To compare the maximum rate of reaction (V_{max}) and the enzyme affinity of different enzymes for their substrates using the Michaelis-Menten constant (K_m).• Structure of proteins and their roles in living organisms <p>3. <u>Biological molecules:</u></p> <ul style="list-style-type: none">• Structure of carbohydrates, lipids and proteins and their roles in living organism• Structure of hemoglobin <p>4. <u>Transport in mammals</u></p> <ul style="list-style-type: none">• oxygen dissociation curves of adult oxyhaemoglobin at different carbon dioxide concentrations (the Bohr effect)	<ul style="list-style-type: none">• Students should progress to draw individual cells under high power.• Create questions on padlet for your peer on mode of action of enzymes <ul style="list-style-type: none">• Create a Kahoot quiz on the topic enzymes.• Interpret different graphs on enzyme affinity.• Describe the ring forms of α-glucose and β-glucose.• Describe the formation of a glycosidic bond by condensation, with reference both to polysaccharides and to disaccharides, including sucrose• Describe the molecular structure of polysaccharides including starch (amylose and amylopectin), glycogen and cellulose and relate	<p>https://revisionworld.com/a2-level-level-revision/biology-level-revision/biological-molecules</p> <p>http://en.mcqslearn.com/a-level/biology/mcq/biological-molecules.php</p> <p>https://youtu.be/H8WJ2KENIKO</p> <p>https://youtu.be/GYrmiU3yhTs</p> <p>http://study.com/academy/lesson/glycosidic-bond-definition-formation-quiz.html</p> <p>https://youtu.be/kctpZ0xZrpQ</p> <p>https://youtu.be/MKGhoC1Bf-I</p> <p>https://www.youtube.com/watch?v=HYbvwMSzqdY</p>
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		<p>these structures to their functions in living organisms.</p> <ul style="list-style-type: none"> • Describe the molecular structure of a triglyceride with reference to the formation of ester bonds and relate the structure of triglycerides to their functions in living organisms. • Describe the structure of an amino acid and the formation and breakage of a peptide bond. • Describe the molecular structure of haemoglobin as an example of a globular protein, and of collagen as an example of a fibrous protein and relate these structures to their functions. • 	<p>https://www.youtube.com/watch?v=tTqr69ZVGmk</p> <p>https://www.youtube.com/watch?v=tTqr69ZVGmk</p> <p>http://www.anaesthesiamcq.com/downloads/odc.pdf</p> <p>http://www.s-cool.co.uk/a-level/biology/transport/revise-it/transport-in-mammals</p> <p>http://biology4alevel.blogspot.ae/2014/12/47-summary-of-mammalian-transport-system.html</p> <p>http://etutoring.gayazahs.sc.ug/uploads/exercises/1408642821.pdf</p>
Physics	<p><u>Errors and Uncertainty</u></p> <p>To assess the uncertainty in a derived quantity by addition of fractional and percentage uncertainties.</p> <p><u>Equations of motion</u></p>	<p>Practice application of the rules of uncertainty with equations involving powers</p>	<p>https://pmt.physicsandmathstutor.com/download/Physics/A-level/Notes/AQA/Practical-Skills/Uncertainties%20and%20Methods.pdf</p> <p>https://www.alevelphysicsonline.com/motion</p>



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	<p>To solve problems using equations that represent uniformly accelerated motion in a straight line, including the motion of bodies falling in a uniform gravitational field without air resistance</p> <p><u>Momentum</u></p> <p>Apply the principle of conservation of momentum and identify elastic and inelastic collisions.</p> <p><u>Electric field strength</u></p> <p>Describe the effect of uniform electric field on the motion of charged particles.</p> <p><u>DC circuits</u></p> <p>Apply Kirchhoff's laws to solve circuit problems.</p> <p>Solve problems applying the principle of potential divider as a source of variable p.d</p>	<p>Solve past paper questions applying the equations of motion for constant acceleration.</p> <p>Solve questions applying conservation of momentum in one dimension and two dimensions</p> <p>Revise the representation of electric field lines and how charged particles behave in an electric field</p> <p>Recall how Kirchhoff's laws are applied in dc circuits and applying the principle of potentiometer</p>	<p>https://www.khanacademy.org/science/physics/linear-momentum/elastic-and-inelastic-collisions/a/what-are-elastic-and-inelastic-collisions</p> <p>https://revisionscience.com/a2-level-level-revision/physics-level-revision/current-electricity/kirchoffs-laws</p> <p>https://alevelphysics.co.uk/notes/potential-divider/</p>
<p>Business Studies</p>	<p>Unit - Marketing</p>	<ul style="list-style-type: none"> The managing director of a small boat-building business told the other directors: 	



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	<p>To analyze the importance of effective marketing strategies with real world applications.</p>	<p>‘There is no need for us to spend money on market research. We have clearly designed the best product on the market and consumers will be certain to buy.’ Discuss whether the managing director is likely to be proven correct.</p> <ul style="list-style-type: none"> Analyze ways in which a soft drink manufacturer might segment the market for its products. <p>Evaluate whether a business should always try to become market leader with the highest market share.</p>	<p>www.entrepreneur.com/encyclopedia/market-research</p> <p>www.businesscasestudies.co.uk</p> <p>www.tutor2u.net</p> <p>Text Books/journals.</p>
<p>Accounting</p>	<ul style="list-style-type: none"> To analyse the usefulness of Managerial Accounting in businesses To develop independent problem-solving skills 	<ul style="list-style-type: none"> Revise all the topics covered so far in the AS level syllabus. Complete all MCQ questions and structures on the topics covered so far. Practice question from past paper 2016 – 2020 (Feb/March and May/June series) 	<p>www.myaccountinglab.com</p> <p>www.bized.co.uk</p> <p>www.tutor2u.net</p> <p>www.cie.org.uk</p> <p>Accounting Text books</p>



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<p>Economics</p>	<ul style="list-style-type: none"> • Unit 3 – Maximum & Minimum Prices, Indirect taxes, Subsidies • Unit 4 - AD/AS analysis 	<ul style="list-style-type: none"> • Revise all the topics from Unit 3 in the AS level syllabus. • Complete all MCQ questions Paper 1 and structures on the topics on Government Intervention. • Practice question from past paper 2015 – 2020 (Feb/March and May/June series) 	<p>Text Book by Colin Bamford and Susan Grant www.tutor2u.net www.s-cool.co.uk www.economicshelp.org Newspapers and The Economist</p>
<p>Pure mathematics</p>	<p>Trigonometry and radians</p> <ul style="list-style-type: none"> • Prove trigonometric identities and solve trigonometric equations • Analyse and solve problems on application of radian measures <p><u>Mechanics</u> <u>Forces and Equilibrium</u> Apply Newton’s laws of motion to the linear motion of a particle of constant mass moving under the action of</p>	<p>Write down the steps required to solve three different trigonometric equations.</p> <p>Solve examination questions on Trigonometry and radians, self marking using CIE marking scheme and taking corrective measures.</p> <p>Create questions for connected particles like a car towing a trailer by means of either a light rope or a light rigid towbar. Consider all the forces acting in</p>	<p>https://www.intmath.com/trigonometric-functions/8-applications-of-radians.php https://en.wikibooks.org/wiki/High_School_Trigonometry/Applications_of_Radian_Measure</p> <p>https://www.purplemath.com/modules/solvtrig.htm https://www.bbc.co.uk/bitesize/guides/zpkdd2p/revision/1</p> <p>http://www.sosmath.com/algebra/solve/solve0/solvtrig.html</p> <p>https://www.vivaxsolutions.com/maths/alpulleys.aspx</p>



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	<p>constant forces, which may include friction, tension in an inextensible string and thrust in a connecting rod</p> <p>Solve simple problems which may be modelled as the motion of a particle moving vertically or on an inclined plane with constant acceleration</p> <p><u>Statistics 1</u> <u>Probability</u></p> <ul style="list-style-type: none"> • Evaluate probability in simple cases • Apply sample space to evaluate the probability. • Add and multiply probability in appropriate cases. 	<p>the system and applying Newton's laws of motion</p> <p>solve problems which may be modelled as the motion of connected particles.</p> <p>Summarise probability using a spider Diagram or any ICT tool. Practice exam style Questions.</p>	<p>https://www.a-levelphysicstutor.com/m-kinetics-con-partcls.php</p> <p>https://revisionmaths.com/advanced-level-maths-revision/statistics/permutations-and-combinations</p> <p>https://revisionmaths.com/advanced-level-maths-revision/statistics/probability</p>
<p>Psychology</p>	<p>Cognitive Psychology</p>	<p>Choose any or preferably all 4 studies and create either of these two,</p> <p>A Glogster poster with videos, images and text.</p> <p>A animoto/movie maker video compiling all the studies learnt.</p>	<p>www.glogster.com</p> <p>www.animoto.com</p> <p>www.psychologyabout.com</p> <p>www.s-cool.co.uk</p>



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			www.thestudentroom.co.uk/wiki/A-Level Psychology
Sociology	To evaluate the methods used in sociological research	Research on the different sociological research methods Prepare a power point on them showing the advantages and disadvantages of each of the methods.	www.sociology.org.uk www.tes.co.uk
English Language	<p>Revision Topics</p> <ul style="list-style-type: none">• To practice writing reflective commentary• To enhance descriptive writing skills, review writing and speech writing.• To revisit theories related to semantic field and lexical field.• To evaluate the form, style and language for varied genres.	Practice descriptive writing using real situations as prompts. For instance, choose a location in a mall and observe your surroundings. Take notes on what you see, hear, feel.... Then give yourself 1 hour to write a piece based on your observations. Evaluate the form, style and language using the various theories. Write a reflective commentary for the same	http://study.com/academy/lesson/descriptive-writing-definition-techniques-examples.html https://papers.gceguide.com/A%20Levels/English%20-%20Language%20AS%20and%20A%20Level%20%20(9093)/



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Art and Design	AO2 and AO3	<p>Communication: purposeful trials of art works to communicate, from the simplest sketch to the most complex work. The need to understand the relationship about their work builds with the audience is influenced by many things, including their chosen media and methods.</p>	<p>www.studentartguide.com</p>
Information Technology	<p>Theory:</p> <ol style="list-style-type: none"> 1. Hardware and software <ul style="list-style-type: none"> • Discussion on user Interfaces • Types of software • Differentiate between compilers and Interpreters. 2. The digital divide <ul style="list-style-type: none"> • Factors that contribute to wards widening the digital divide gap • Impact on society <p>Practical:</p> <ul style="list-style-type: none"> • Database concepts • Import tables into database 	<p>Activities: Students to create presentations on hardware and software and highlight key points on types of hardware and software.</p> <p>Create online posters and presentations on Digital divide and its impact on society.</p>	<p>Text book</p> <p>https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-international-as-and-a-level-information-technology-9626/</p>



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	<ul style="list-style-type: none"> • Queries and Reports' • Grouped Reports • Normalization concepts • Dynamic and Static Queries • Spreadsheets Vlookup, Hookup functions. • Multiple if statements • Left, Right, Concatenate • Pivot tables <p>Data filtering and sorting</p>	<p>Students to work on advanced Database and spreadsheet concepts and Past paper Practice</p>	
<p>Travel and Tourism</p>	<p>To assess the difference between internal and external customers in travel and tourism industry.</p>	<p>Research on the following topic and write a detailed report:</p> <ul style="list-style-type: none"> • Assess the role of mobile technology in the travel and tourism industry. • Many tourism authority websites contain virtual tours. Explain two advantages for destinations of virtual tours <p>Discuss the likely problems for tourism providers caused by the use of social media</p>	<p>Text Book and Journals</p> <p>https://www.dpogroup.com/africa/resources/the-tour-operators-essential-guide-to-social-media-marketing/</p> <p>https://blog.wego.com/6-popular-destinations-you-can-visit-through-virtual-tours/</p> <p>https://www.theguardian.com/travel/2020/mar/30/10-best-virtual-tour-worlds-most-famous-landmarks</p>



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		<ul style="list-style-type: none"> • foreign visitors with language and cultural differences • People with special needs, people with mobility and access difficulties, people with sensory difficulties, visitors with special dietary requirements. 	
Computer Science	<p>Testing Strategies:</p> <ul style="list-style-type: none"> • choose suitable data for black-box testing • choose suitable data for white-box testing • understand the need for stub testing 	<p>Encourage your child to develop a software and test a number of small programs, with test plans that they should classify as black box or white box testing. Ask them to focus on the concepts of stub testing when developing structured programs and modules.</p>	<p>Introduction to software testing – black box and white box: http://en.wikipedia.org/wiki/Software_testing www.pp4s.co.uk/main/tu-testing-intro.html http://en.wikibooks.org/wiki/A-level_Computing/AQA/Problem_Solving,_Programming,_Data_Representation_and_Practical_Exercise/Systems_Development_Life_Cycle/Testing</p>