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Subject	Focus	Activities	Useful website
English Language	• Analysing the style of a writer • Analysing the various types of speeches and the style	• Research on any poems/poets of any genre and identify the common themes, motifs, style of writing, figurative devices etc. employed by the writer(s). • Attempt a short poem with a similar theme, motifs and style that you have researched on. • Research on Historical speeches. Select two speeches and do a comparative study of the same. Focus on the language features and the effects. Also write a speech copying the style of anyone of the speeches.	www.poemhunter.com https://www.scoopwhoop.com/inothernews/historical-speeches/
Business Studies	• Enterprise the nature of business activity and the role of the entrepreneur. • Operations planning – Methods of production. • To analyze factors of production as challenges for new businesses • To analyze reasons of selecting method of production for a manufacturing business.	• Write a comprehensive report on factors of production and major challenges faced by new businesses. • Visit to nearest manufacturing unit and research about their method of production. Analyze your findings and give reasons for selecting that business and develop a report on their production method also include photographs of business assembly line.	www.tutor2u.net www.dineshbakshi.com www.cie.org.uk

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Economics	• To analyse the problem of resource allocation and relating it to the basic economic problem	Learning Menu on Basic Economic Ideas & Resource Allocation • Attempt any three tasks from the learning Menu 1. Explain the real world examples for the causes of an inward and outward shift of the PPF. Present your findings as a Report. 2. List out as many examples of specialization at the level of the individual, firm, region or country as a whole. Share your findings on an A3 Poster. 3. Are natural resources good or bad for economic development? Refer to the link 4. Create an Infographic presentation on the Time line and history of Money including the digital currency Bitcoin. 5. Examine the role of financial markets in the wider economy Present your findings as a Pod cast or Video cast.	https://www.economist.com/news/middle-east-and-africa/21638141-africas-growth-being-powered-things-other-commodities-twilight. www.tutor2u.net https://www.economist.com/news/middle-east-and-africa/21638141-africas-growth-being-powered-things-other-commodities-twilight. (Write an essay referring to the link)

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Accounting	• To analyze the meaning and purpose of charging depreciation in Accounting	• Why would a company use reducing balance method of depreciating its non-current assets in its financial statements? • Using an example familiar to you, show how depreciation occurs using reducing balance method. Present your findings on a PowerPoint / Prezi format.	www.bized.co.uk www.cie.org.uk www.legislation.gov.uk www.companieshouse.uk
Travel & Tourism	• To analyze the impacts of organisations involved in travel and tourism industry	Undertake a research on the role of the following organisation • national tourism organisations (NTOs) • regional and local tourism organisations • consular service providers • industry groups and trade associations • destination management companies (DMCs)	https://onsitemalta.com/ https://www.visitscotland.com/ https://www.visitdubai.com/en/ https://www.onecaribbean.org/

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Biology	**Enzymes:** • Explain that enzymes are globular proteins that catalyze metabolic reactions. • Explain the mode of action of enzymes in terms of an active site, enzyme/substrate complex, lowering of activation energy and enzyme specificity. • Explain the effects of reversible inhibitors, both competitive and non-competitive, on the rate of enzyme activity. • To compare the maximum rate of reaction (Vmax) and the enzyme affinity of different enzymes for their substrates using the Michaelis-Menten constant (Km). • Structure of proteins and their roles in living organisms **Biological molecules**	• Create a TED-Ed lesson or video on enzymes and their functions • Create questions on padlet for your peer on mode of action of enzymes • Create a Kahoot quiz on the topic enzymes. • Interpret different graphs on enzyme affinity. • Survey the bio fortified food with the types of biomolecules in the foods sold in UAE • Evaluate whether the little brown grains of yeast obtained from the grocery store are alive by testing for metabolism and growth. • Making a 3D and 2D structure of biomolecules for better understanding.	http://www.cpalms.org/Public/PreviewResourceUpload/Preview/38326 http://www.rpi.edu/dept/bcbp/molbiochem/MBWeb/mb1/part2/sugar.htm has a comprehensive review of carbohydrate structure including examples of polysaccharides? http://www.calfnotes.com/pdffiles/CN102.pdf https://alevelnotes.com/Lipids/58 http://study.com/academy/lesson/structure-and-function-of-lipids.html http://biology4alevel.blogspot.ae/2014/08/10-lipids.html https://youtu.be/VGHD9e3yRIU https://youtu.be/dMPfSl60ijo http://www.particlesciences.com/news/technical-briefs/2009/protein-structure.html https://alevelnotes.com/Protein-Structure/61 http://www.vivo.colostate.edu/hbooks/genetics/biotech/basics/prostruct.html https://revisionworld.com/gcse-revision/biology/cell-activity/proteins-and-amino-acids/globular-and-fibrous-proteins https://youtu.be/rYrtuTa6bTg

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	• Explore the structure of carbohydrates, lipids & proteins and their role in living organisms. • Elaborate on the structure of Hemoglobin and water • Test for reducing and non-reducing sugars.		http://www.markedbyteachers.com/as-and-a-level/science/biological-importance-of-water.html https://youtu.be/FziG5LgrXPo https://youtu.be/mfC9RB7IL9A https://youtu.be/QU0VBcHnQOk
Chemistry	**Chemical Bonding** • 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	• Practice drawing dot-and-cross diagrams for ionic compounds as well as covalent compounds • 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 • Solve past paper questions based on identifying the coordinate covalent bonding, shapes of molecules, bonding and physical properties	http://www.chemistryrules.me.uk/found/found3.htm http://www.inchm.bris.ac.uk/schools/vsepr/ https://chem.libretexts.org/Core/Physical_and_Theoretical_Chemistry/Physical_Properties_of_Matter/Atomic_and_Molecular_Properties/Intermolecular_Forces/Specific_Interactions/Hydrogen_Bonding http://learn.mindset.co.za/sites/default/files/resourcelib/emshare-show-note-asset/3723_fdoc.pdf

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	induced dipoles, hydrogen bonding and metallic bonding **<u>States of Matter</u>** • 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	• 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) • Practice calculations based on ideal gas equations • Draw a flow chart to show the lattice structure of crystalline solids and describe their properties based on it.	http://www.chemguide.co.uk/physical/ktmenu.html http://ww2.chemistry.gatech.edu/class/peek/1310/notes/09-gases.pdf https://www.creative-chemistry.org.uk/molecules/structures.htm

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Physics	**Dynamics** • To state and apply each of Newton's laws of motion. • To describe qualitatively the motion of bodies falling in a uniform gravitational field with air resistance • To apply the principle of conservation of momentum to solve simple problems, including elastic and inelastic interactions between bodies in one and two dimensions **Projectile motion** • To describe and explain motion due to a uniform velocity in one direction and a uniform acceleration in a perpendicular direction	• A snooker ball strikes stationary ball. The second ball moves off sideways at 60˚ to the initial path of the first ball. Use the idea of conservation of momentum to explain why the first ball cannot travel in its initial direction after the collision. Illustrate your answer with a diagram • Practice numerical problems applying the conservation of momentum principle. • To derive equations for Range and maximum height for a projectile	https://www.physicsclassroom.com/class/newtlaws/Lesson-1/Newton-s-First-Law https://www.s-cool.co.uk/a-level/physics/momentum-and-impulse/revise-it/principle-of-the-conservation-of-momentum https://www.physicsclassroom.com/class/momentum/u4l2b.cfm https://www.physicsclassroom.com/Class/vectors/u3l2a.cfm https://www.physicsclassroom.com/class/vectors/Lesson-2/Horizontally-Launched-Projectiles-Problem-Solving

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Mathematics	**<u>Pure Mathematics 1</u>** **Functions:** • Identify the range of a given function and find the composition of two given functions • Illustrate the relation between a one – one function and it's inverse • Understand and use transformations of the graph of y = f(x) **Coordinate geometry:** • To find the length between two points. • To find the gradient of a line. • To find the midpoint , given two points. • To find the equation of a line if two points are given or a point and a gradient is given. **<u>Statistics 1</u>** **<u>Probability, Permutations and combinations</u>**	**<u>Pure Mathematics</u>** Research on the real life applications of functions. Make notes on different transformations on the function y = f(x) with examples. Take coordinates of any 2 points, find midpoint, length and gradient of the line joining them using required formulae. **<u>Statistics</u>** What is Bayer's theorem ?How does this related with conditional probability Model a situation on conditional probability from a real life situation. **<u>Mechanics</u>** Find situations which can be modeled as motion in a straight line with constant acceleration Record your journey from Dubai to Abudhabi and draw a speed time graph representing	https://www.intmath.com/functions-and-graphs/2a-domain-and-range.php https://mathbitsnotebook.com/Algebra1/Functions/FNDomainRange.html https://www.bbc.co.uk/bitesize/guides/z3brdmn/revision/4 https://www.onlinemathlearning.com/function-transformation-hsf-bf3.html https://revisionmaths.com/advanced-level-maths-revision/pure-maths/geometry/coordinate-geometry https://revisionmaths.com/advanced-level-maths-revision/pure-maths/geometry/equation-circle **<u>Statistics</u>** https://revisionmaths.com/advanced-level-maths-revision/statistics/permutations-and-combinations https://revisionmaths.com/advanced-level-maths-revision/statistics/probability

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	• Solve problems involving permutation and combinations of a set of objects • Evaluate probability in simple cases • Apply sample space to evaluate the probability. • Add and multiply probability in appropriate cases. • Apply Venn diagrams and tree diagrams to calculate the probability. • Show that events are mutually exclusive or independent. • Able to calculate conditional probability using formula. • Model situations involving probability. **Mechanics 1 :** **Chap 1 : Velocity and acceleration** • To work with scalar and vector quantities for distance and speed • To use equations of constant acceleration • To sketch and read displacement–time graphs	the journey and calculate average speed from the graph.	https://www.youtube.com/watch?v=wTlbovKpTME **Mechanics** http://fhsmaths.weebly.com/kinematics-of-a-particlea- straight-line.html http://www.mathsbox.org.uk/revisionnotes/AQA%20Mechanics%201%20Revision%20Notes.pdf

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	and velocity–time graphs. To solve problems with multiple stages of motion.		

Information Technology	Hardware and software:
	• Mainframe computers and supercomputers
	• Types of hardware and software
	• User interface
	• Operating systems
	• Practical
	  • Spreadsheets
	  • Database
		• Create a presentation on the following: Operating systems, Types of software, User interface.
		• Attempt past paper questions and create presentations on the given topics.
			Past papers, Internet
			www.teach-ict.com

Computer Science	**Hardware:** • Explain the difference between primary and secondary storage. • Identify items that are stored in secondary storage. • Explain the difference(s) between RAM and ROM and the difference(s) between SRAM and DRAM.	Encourage your child to create presentation on the following: Ask child to research examples of devices that make use of PROM, EPROM and/or EEPROM, what they are used for in these situations and why. Child should maintain a glossary of hardware component terminology.	http://en.wikibooks.org/wiki/A-level_Computing/AQA/Problem_Solving,_Programming,_Data_Representation_and_Practical_Exercise/Fundamentals_of_Programming/Input_and_output

	• Explain the difference(s) between PROM, EPROM and EEPROM. • Describe the principal operations of a range of hardware devices. • Explain the purpose and use of buffers in a range of devices. • Describe the use of sensors and identify the appropriate sensors for a scenario. • Explain the difference between a monitoring and control system. • Describe the use and function of a monitoring and control system in a given situation. • Use the NOT, AND, OR, NAND, NOR and XOR logic gate symbols. • Understand and define the functions of: NOT, AND, OR, NAND, NOR and XOR (EOR) gates • Construct the truth table for each of the logic gates		

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	• Construct a logic circuit • Construct a truth table • Construct a logic expression		
Psychology	Biological approach	Assess the cognitive approach in psychological studies? Focus on:- • Key assumptions of cognitive approach. • Key studies under cognitive approach. • Issues and debates surrounding cognitive approach. • Research method used by cognitive approach • Strengths and weakness of using cognitive approach.	• AS /A level Psychology textbook or any other General Psychology textbooks. You may refer to the below links for additional information. https://www.verywellmind.com/what-is-the-biological-perspective-2794878
Sociology	To evaluate the sociological perspectives on culture and identity	• Research on the different sociological perspectives -Functionalism, Marxism and Feminism. Also include the work of sociologists in the study of culture and society. • Prepare a report to find differences and similarities in the work done by	www.sociology.org.uk www.tes.co.uk

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		sociologists and the perspectives they come under	
Art & Design	Higher-order thinking skills – analysis, critical thinking and problem-solving.	• Communication: purposeful trials of art works to communicate, from the simplest sketch to the most complex work. • To understand the relationship about their work builds with the audience is influenced by many things, including their chosen media and methods	www.studentartguide.com
Arabic (Arabs)	TOPIC: قصة حتى اخر رمق **Learning objectives: أن يحلل المتعلّ القصة) إلى عناصرها الفنية).** **- أن يكتب تلخيصًا عن القصة** **موضحًا فكرتها** TOPIC **أسلوب الاختصاص** **Learning objectives:**	**يحلل المتعلّم (القصة) إلى عناصرها الفني** . **- موضحًا فكرتها يكتب تلخيصًا عن القصة** **يوظف أسلوب الاختصاص في كتاباته**	https://www.youtube.com/watch?v=CTVQXFCR36o https://www.youtube.com/watch?v=pEbg62N4DcQ https://ar.wikipedia.org/wiki/%D8%A3%D8%B3%D9%84%D9%88%D8%A8_%D8%A7%D8%AE%D8%AA%D8%B5%D8%A7%D8%B5

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	أن يوظف أسلوب الاختصاص أن يعرب أسلوب الاختصاص	يعرب أسلوب الاختصاص •	
Islamic Education (Arabs)	TOPIC: - التطرف-الفراق بين الزوجين **Learning objectives:** ان يبين المقصود بالتطرف أن يوضح موقف الاسلام من التطرف أن يستنبط الحكمة من تحريم التطرف أن يوضح أسباب التفريق أن يبدي رأيه في التفريق بين الزوجين	يحفظ سورة النور يبحث عن أخطار التطرف على الفرد والمجتمع كتب بحثا عن عن الطلاق وانواعة • اكتب بحثا عن دورك في القضاء على الارهاب	www.moqatel.com https://www.youtube.com/watch?v=ocvpHdaXldk https://www.youtube.com/watch?v=8f3r7f5_VmA https://www.youtube.com/watch?v=wp6Zk8pCNBI
Islamic Education (Non-Arabs)	TOPIC: THE ARABIC LANGUAGE & CULTURE **Learning objectives:**	• .. Watch a documentary on the history of Arab Civilization and make a comparison of today's Arabic Culture.	

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	To learn the concept of keeping identity. **- To comprehend the importance and status of Arabic language** **_ To analyze the relation between language and culture** **(by referencing Quran,,Seerah , history and real life)** TOPIC- SOURCES OF ISLAMIC SHARIA **LEARNING OBJECTIVES-** - **To clarify the importance of Islamic ruling** - **-To elucidate the types and characteristic of Islamic Sharia** - _ to comprehend the authority of Sunnah in Islamic Sharia. - (By referencing Quran, Ahadeeth, Seerah and day-to-day lives)	• Create a power point on the importance of constructing a well- balanced society by instilling the teachings of Prophet (P.B.U.H).	https://www.youtube.com/watch?v=HynIzhSAS-g

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