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Subject	Focus	Activities	Useful website
Arabic	TOPIC: التشبيه الضمني – الجناس – أفعال المقاربة والرجاء والشروع – كيف تكون شابا ناجحا وتحقق أحلامك . - المغفلة التي علمتني – نظرة – لغات العالم مرايا الناس **Learning objectives:**	- يكتب فقرة تتضمن التشبيه الضمني . - يستخدم الجناس في كتابة أمثلة . - يحدد من العناوين للصحف أفعال المقاربة والرجاء والشروع . - يكتب مقالا عن أحلامه . - يصف الشخصيات في القصة . - يحدد الهدف من القصة . - يعيد صياغة القصة . - مناظرة هل ستموت اللغة العربية أم لا .	https://www.youtube.com/watch?v=wTr-JaMpNs0 https://www.youtube.com/watch?v=FofxXOIjBU0 https://www.youtube.com/watch?v=FofxXOIjBU0
Islamic Studies (Arabs)	TOPIC: **التواصل الاجتماعي سلوك وآداب - الشيخة فاطمة بنت المبارك** **Learning objectives:** أن يوضح أهمية التواصل بين الناس أن يبدي راية في واسائل التواصل الاجتماعي أن يحلل شخصي الشيخة فامة بنت لمبارك	**يكلف الطالب ببعض التكليفات البيتية – يحرص على البعد عن الأضرار التي تهلك صحته – يلتزم بأداب الإسلام في التواصل الاجتماعي.** **يكتب بحثا عن الرعاية الصحية .** **يكتب بحثا عن آداب التواصل الاجتماعي .** **يكتب موضوعا عن أهمية التشريع في حياة الأمم.** **يكتب موضوعا عن آداب الاسلام في التعامل مع وسائل التواصل .**	**https://www.youtube.com/watch?v=A0fQzYsbZ28**

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	أن يوضح أهم أعمال الشيخة فاطمة بنت المبارك	**يكتب تقريرا عن الشيخة فاطمة بنت المبارك .**	
Islamic Studies **Non Arabs**	TOPIC: 1. Separation of spouses **2. Extremism** **Learning objectives:** ▫ To Comprehend the significance of a balanced family system ▫ To elucidate the importance of a healthy relationship with husband & wife • To elucidate the concept of extremism and moderation. • To explore the factors lead to extremism • To evaluate the effect of these traits on society.	• Write an article that shows how important is a happy and balanced family to build a happy and balanced society. • Think and create a video that shows how we can keep our youth stay away from extremism. How has U.A.E successfully implemented strategies against extremism? Mention in your video their efforts towards this issue.	https://www.yout-ube.com/watch?v=YU87qBdkMVU&t=48s&ab_channel=QuranWeekly

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Chemistry	**CARBONYL COMPOUNDS:** • To describe: • (i) the formation of aldehydes and ketones from primary and secondary alcohols respectively using $Cr_2O_7^{2-}/H^+$ • (ii) the reduction of aldehydes and ketones, e.g. using $NaBH_4$ or $LiAlH_4$ • (iii) the reaction of aldehydes and ketones with HCN and NaCN. • To describe the mechanism of the nucleophilic addition reactions of hydrogen cyanide with aldehydes and ketones • To interpret the use of 2,4-dinitrophenylhydrazine (2,4-DNPH) reagent to detect the presence of carbonyl compounds • To deduce the nature (aldehyde or ketone) of an unknown carbonyl compound from the results of simple tests (Fehling's and	• Prepare a power point to compare and contrast the reactions of aldehydes and ketones. • Choose the compounds which give positive iodoform test, from a given list of organic substances. • Carry out analysis of aldehydes and ketones in the laboratory, using - Tollens reagent - Fehlings solution - 2,4-DNP - Schiffs reagent • Solve practice problems on reactions of aldehydes and ketones - To identify products - Reaction conditions - Write balanced chemical equations.	https://www.youtube.com/watch?v=2r-EBwCLogw http://www.a-levelchemistry.co.uk/45-compounds-containing-the-carbonyl-group.html https://alevelchemistry.co.uk/notes/carbonyl-compounds/ http://chubbyrevision-a2level.weebly.com/compounds-containing-the-carbonyl-group.ht https://www.chemguide.co.uk/organicprops/acidmenu.html https://www.youtube.com/watch?v=gmM1jX-n7vg https://www.proprofs.com/quiz-school/story.php?title=njeyode4 https://global.oup.com/uk/orc/pharmacy/ifp_chemistry/01student/mcqs/ch06/

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	Tollens' reagents; ease of oxidation) • To describe the reaction of CH3CO– compounds with alkaline aqueous iodine to give tri-iodomethane • To describe the formation of carboxylic acids from alcohols, aldehydes and nitriles • To outline the reactions of carboxylic acids in the formation of: - salts, by the use of reactive metals, alkalis or carbonates - alkyl esters - alcohols, by use of LiAlH4 - acyl chlorides • To explain acid and base hydrolysis of esters.	• Produce a poster describing the nucleophilic addition mechanism. • Model the nucleophilic addition mechanism using molecular models and modelling clay. • Solve questions with a wide variety of reactions of carboxylic acids, ○ To predict products ○ Reaction conditions ○ Construct balance chemical equations.	
Biology	**Nucleic acids and protein synthesis** **Structure and replication of DNA** • To Describe the structure of nucleotides, including the phosphorylated nucleotide ATP	**Nucleic acids and protein synthesis** • Simulation/ undergo virtual labs for DNA structure and	**Nucleic acids and protein synthesis** • http://www.hhmi.org/biointeractive/dna/index.html • https://www.ncbi.nlm.nih.gov/books/NBK26821/

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	• To describe the structure of RNA and DNA and explain the importance of base pairing and the different hydrogen bonding between bases. • **Replication of DNA** • To describe the semi-conservative replication of DNA during interphase • **Gene coding** • To state that a polypeptide is coded for by a gene and that a gene is a sequence of nucleotides that forms part of a DNA molecule • To state that a gene mutation is a change in the sequence of nucleotides that may result in an altered polypeptide • To describe the way in which the nucleotide sequence codes for the amino acid sequence in a polypeptide with reference to the nucleotide sequence for HbA (normal) and HbS (sickle cell)	replication games activities using the link below. • Create 10 Effective quick questions on DNA synthesis using bloom's taxonomy. • Create separate flow charts on DNA synthesis, RNA transcription and Translation of protein with emphasis on enzymes used. • Draw a poster on DNA synthesis highlighting replication fork, okazaki fragments and 5 prime to 3 prime direction of DNA synthesis • Work out on mathematical justification of Chargaff rule, how 4 nitrogenous bases code for 20 amino acids.	• http://www.mrothery.co.uk/genetics/dnanotes.htm#Structure%20of%20DNA • https://youtu.be/Ec2I2caFjMw • https://youtu.be/qoERVSWKmGk • https://youtu.be/W4mYwsr9gGE • **animations of DNA structure and replication** • http://accessexcellence.org/AB/GG/ • http://www.s-cool.co.uk/a-level/biology/dna-and-the-genetic-code/revise-it/dna-replication • http://www.thealevelbiologist.co.uk/replication-of-dna • https://youtu.be/cOw41Xa_ulY • https://youtu.be/guuJ_qayk70 • https://youtu.be/mfnDVV518es • https://youtu.be/TNKWgcFPHqw • http://www.hhmi.org/biointeractive/search?sort_by=created&redirect=1&field_biointeractive_types%5B0%5D=26700 • http://www.learnaboutsma.org/science/1.html • https://youtu.be/dijqYyFY1GM • https://youtu.be/mGgYTdPYQjA

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	alleles of the gene for the β-globin polypeptide • **Role of DNA in protein synthesis** • To describe how the information in DNA is used during transcription and translation to construct polypeptides, including the role of messenger RNA (mRNA), transfer RNA (tRNA) and the ribosomes	• http://www.yourgenome.org/activities/origami-dna • https://geneed.nlm.nih.gov/topic_subtopic.php?tid=15&sid=16 • http://www.pbslearningmedia.org/resource/tdc02.sci.life.repro.lp_dnastructure/modeling-dna-structure/ • https://www.merlot.org/merlot/viewMaterial.htm?id=297572 http://www.genomebc.ca/education/teachers/activities/	• **http://www.ncbe.reading.ac.uk/ncbe/PROTOCOLS/DNA/extracting.html** • **http://learn.genetics.utah.edu/content/labs/extraction/** • **https://youtu.be/cepY-Qoc5pw**
Physics	**Waves** • To know the experimental arrangement of Young's double slit experiment. • To show an understanding of experiments that demonstrate stationary waves in air columns.	• In Young double-slit experiment, state the effect of -Using slits of narrower width (but the same separation) -Using slits with smaller separation but of same width. • Research on why holes are kept at different positions in a flute.	• http://www.physicsclassroom.com/class/light/Lesson-3/Young-s-Experiment • http://www.physicsclassroom.com/class/waves/Lesson-4/Formation-of-Standing-Waves

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Business Studies	Unit - Finance and Accounting **Topic – Cash Flow Forecasting** To evaluate the significance of cash flow forecasting for new companies	**Cash Flow Forecasting:** Discuss why a new business should focus more on managing its cash than making a profit.	www.bized.co.uk www.tutor2u.net www.s-cool.co.uk www.businesscasestudies.co.uk
Accounting	• To analyse the structure of limited companies and the sources of raising capital. • To describe the type of businesses that would use of unit, job and batch costing system. • To apply costing concepts to make business decisions and recommendations.	• Prepare a sway presentation analyzing the structure of limited companies which should include the following – ➢ Features of limited companies ➢ Share capital - meaning of and accounting for ➢ Capital and revenue reserves ➢ Loan capital ➢ Preparation of internal final accounts and balance sheets of limited companies.	www.myaccountinglab.com, www.bized.co.uk www.cie.org.uk, http://www.accounting-world.com/ https://www.investopedia.com/ https://study.com/search/text/academy.html?q=accounting#/topresults/accounting

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		• Present a write up on type of businesses that would use of unit, job and batch costing system. OR • Prepare a Ted Ed Flipped Lesson on the topic.	
Economics	**The macro economy – Protectionism** **Government macroeconomic intervention** • Evaluate the different methods of protectionism and assess the arguments in favour of protectionsm • Evaluate the different policy measures used to achieve macroeconomic objects	Learners will research on why governments might intervene in international trade. Research and assess in writing the impact of each method in solving (e.g.) a balance of payments deficit in their own country prepare a short presentation on their findings. Class debate using KIALO on argue case for and against protectionism. Consolidate learning on protectionism by setting Questions from past papers Learners will presents their findings to the rest of the class in a format of their choice for discussion and feedback on effectiveness of different policy measures with different economic scenarios. Practicing of AD/AS diagrams and	www.tutor2u.net/economics/revision-notes/a2-macro-protectionism.html www.economicsonline.co.uk/Global_economics/Trade_protectionism.html www.tutor2u.net/economics/presentations/a2economics/macro/TradeandProtectionism/default.html www.tutor2u.net/economics/revision-notes/as-macro-international-trade.html www.economicsonline.co.uk/Global_economics/Trade_protectionism.html www.tutor2u.net/economics/revision-notes/as-macro-fiscal-policy.html

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		resulting impact on income, output and employment. Consolidate learning on policy measures by setting Questions from past papers	www.tutor2u.net/economics/revision-notes/as-macro-monetary-policy.html www.tutor2u.net/economics/revision-notes/as-macro-supply-side-policies.html www.businesseconomics.com/country-data.html www.tutor2u.net/economics/revision-notes/as-macro-balance-of-payments.html Text book endorsed by Cambridge.
Pure mathematics	**Differentiation** • To calculate the gradient at a point on a curve, given its equation • To find the equations of the tangent and normal to a curve at a point. • To interpret a derivative as a rate of change of one variable with respect to another. • To apply derivatives in solving real – world problems	Make a list of derivatives of simple functions Research on the applications of differentiation. How do you find maximum and minimum points using differentiation? Make notes to summarize learning that includes solved examples	**https://www.bbc.com/bitesize/guides/zyj77ty/revision/1** **https://revisionmaths.com/advanced-level-maths-revision/pure-maths/calculus/differentiation** **https://www.britannica.com/science/analysis-mathematics/Calculus#ref731796** **https://www.intmath.com/applications-differentiation/applications-of-differentiation-intro.php** **http://www.statistica.com.au/differentiation_max_and_min.html**

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	• To use second derivatives to distinguish minimum and maximum points **Integration:** • To understand the term indefinite integral and the need to add the constant of integration. • To integrate functions which can be expressed as sums of powers of x • To evaluate a definite integral • To use definite integrals to find area under the curve • To find volume of a revolution	Apply the basic integration rules in finding the function, given it's derivative. Can you get more than one function when you integrate? Why? Research on the significance of constant of integration. Research on the real life applications of integration. Make notes to summarize learning that includes solved examples.	**https://www.mathsisfun.com/calculus/integration-introduction.html** **https://www.bbc.com/bitesize/guides/zgxttfr/revision/1** **https://revisionmaths.com/advanced-level-maths-revision/pure-maths/calculus/integration**
Statistics 1	**Topic: Normal Distribution and Permutation and Combinations** • Solve problems concerning a variable X, where $X \sim N(\mu, \sigma^2)$ • Recognise practical situations where the distribution is a suitable model.	Model a situation on normal distribution from a real-life situation. Summarise your learning and prepare notes on normal distribution with examples. Model a situation on permutation and combinations from real life situation.	https://revisionmaths.com/advanced-level-maths-revision/statistics/normal-distribution https://revisionmaths.com/advanced-level-maths-revision/statistics/permutations-and-combinations https://www.youtube.com/watch?v=2tuBREK_mgE

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Mechanics1	• Understand the terms permutation and combination, and solve simple problems involving selections • Solve problems about arrangements of objects in a line, including those involving repetition and restriction • Evaluate probabilities with the calculations using permutation and combination **<u>Energy, Work and Power</u>** • analyze the concepts of gravitational potential energy and kinetic energy, and use appropriate formulae • understand and use the relationship between the change in energy of a system and the work done by the external forces, and use in appropriate cases the principle of conservation of energy	Prepare notes on how to distinguish between permutation and combination using real life situations. Make notes on cases where the motion may not be linear, e.g. a child on a smooth curved 'slide', where only overall energy changes need to be considered. solve problems involving the instantaneous acceleration of a car moving on a hill against a resistance.	https://www.youtube.com/watch?v=zQAmwgZgObk https://www.physicsclassroom.com/calcpad/energy https://revisionmaths.com/advanced-level-maths-revision/mechanics/work-energy-power https://alevelmaths.co.uk/mechanics/work-energy-and-power/

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	• use the definition of power as the rate at which a force does work, and use the relationship between power, force and velocity for a force acting in the direction of motion		
Psychology	**Research Methods** To evaluate the ethical issues in psychological research	Research on the guidelines followed by psychologist in conducting research Prepare a prezi presentation on your research outcome	www.simplypsychology.com
Sociology	**Research Methods** To evaluate the role of experiments in terms of its strengths and weakness	Research on different kinds of experiments used by psychologists Explore the work of psychologists who have used experiments in their research Present your outcome on google slides.	www.sociology.org.uk
English Language	**WRITING IN THE STYLE OF THE AUTHOR.** • To enhance critical thinking skills. • To further enhance speech writing skills.	• Watch the following video and create a speech in the style of the speaker shown.	Abraham Lincoln Gettysburg speech (Jeff Daniels) - YouTube

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Art and Design	Growing independence in the refinement and development of ideas and personal outcomes	Creativity, visual awareness, critical understanding an imaginative, creative and personal response.	**www.studentartguide.com**
Information Technology	**Theory:** 1. The digital divide • Factors that contribute tow ards widening the digital div ide gap • Impact on society 2. Expert systems 3. Data processing systems **Practical:** • Database concepts • Import tables into database • Queries and Reports' • Grouped Reports • Normalization concepts • Dynamic and Static Queries • Spreadsheets Vlookup, Hookup functions. • Multiple if statements • Left, Right, Concatenate	Students to create presentations on Digital Divide and Expert systems. Students to work on advanced Database and spreadsheet concepts, Sound and video editing Past paper Practise.	https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-international-as-and-a-level-information-technology-9626/\

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	• Pivot tables • Data filtering and sorting • Sound and video editing Edit audio and video clips using video and audio editing software.		
Travel and Tourism	To demonstrate the ways in which organizations can assess the effectiveness of the customer service provided to customers.	• Research on how social media can be used asses the quality of customer service. • How can performance management be used to influence the quality of customer service offered by a holiday representative? Support your answer with real world examples	www.wto.org Text book & other sources https://www.prospects.ac.uk/job-profiles/holiday-representative https://www.customerservice.ae/resources/featured/performance-management-for-customer-service-employees/ https://uk.indeed.com/cmp/Tui-Group/reviews?fcountry=ALL&fjobtitle=Holiday+Representative
Computer Science	Students will use the following concept to solve the pre-release material June 2020. • To use a 'count controlled' loop: - given pseudocode will use the following structure: FOR <identifier> ← <value1> TO <value2> <statement(s)> ENDFOR	• Develop a software project to include the following using the scenario from pre-release material June 2020: For example, if the chosen programming language is Python, give a program written in Java. • Translate the program in the chosen programming	Commenting programs: http://en.wikibooks.org/wiki/A-level_Computing/AQA/Problem_Solving,_Programming,_Data_Representation_and_Practical_Exercise/Fundamentals_of_Programming/Comments Inputs and outputs in programming: http://en.wikibooks.org/wiki/A-level_Computing/AQA/Problem_Solving,_Pro

	- alternatively:
	FOR <identifier> ← <value1> TO <value2> STEP <value3>
	<statement(s)>
	ENDFOR
	• to use a 'post-condition' loop:
	- given pseudocode will use the following structure:
	REPEAT
	<statement(s)>
	UNTIL <condition>
	• To use a 'pre-condition' loop
	- given pseudocode will use the following structure:
	WHILE <condition>
	<statement(s)>
	ENDWHILE
	•To justify why one loop structure may be better suited to a problem than the others
		language. The result should be tested to see if it produces the correct output.	gramming, Data Representation and Practical Exercise/Fundamentals of Programming/Input and output
			
			Operators:
			http://en.wikibooks.org/wiki/A-level Computing/AQA/Problem Solving, Programming, Data Representation and Practical Exercise/Fundamentals of Programming/Arithmetic operators
			
			www.pp4s.co.uk/main/tu-op-intro.html