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Subject	Focus	Activities	Useful website
Accounting	• To develop independent problem-solving skills • To get familiarize with the A level topics	• Revise all the topics covered so far in the A level syllabus. • Revise the topic of budgeting and practice questions on the same. • Practice question from past paper 2016 – 2020 (Feb/March and May/June series)	www.myaccountinglab.comwww.cie.org.uk, Accounting Text books
Biology	**Discussion based on gap analysis** **Inherited Changes** • Gene Mutation e) explain that gene mutation occurs by substitution, deletion and insertion of base pairs in DNA and outline how such mutations may affect the phenotype f) outline the effects of mutant alleles on the phenotype in the following human conditions: albinism, sickle cell anaemia, haemophilia and Huntington's disease **Selection and Evolution:** • Justify the role offollowing the terms gene pool, reproductive isolation, speciation, allopatric speciation,	• Design 10 questions For Kahoot on the link https://create.kahoot.it/#user/0589a3f9-6572-4955-8b62-a01f5a6da9b4/kahoots/created. • Produce a list of causes of genetic variation for sexually reproducing organisms and for asexually reproducing organisms (i.e. only mutation), as well as causes of environmental variation (disease, edaphic factors, climate, water availability, etc.)	• http://www.contexo.info/DNA_Basics/Meiosis.htm • http://highered.mcgraw-hill.com/sites/0072495855/student_view0/chapter28/animation__how_meiosis_works.html • http://www.dnaftb.org/dnaftb/27/concept/index.html • http://www.who.int/genomics/public/geneticdiseases/en/index2.html • http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/M/Mutations.html

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	sympatric speciation, polyploidy, autopolyploid, allopolyploid. • Describe the differences between continuous and discontinuous variation and explain the genetic basis of continuous and discontinuous variation.	• Outline the changes that occur to give base substitution, deletion and insertion mutations. Point out how frameshift mutations arise. Learners can produce. • Construct a flow chart to show how a gene mutation can lead to symptoms of sickle cell anaemia • Create a mind map on the factors influencing selection and variation. • Compare between natural selection and artificial selection.	• http://learn.genetics.utah.edu/content/variation/sources/ • http://darwiniana.org/evolution.htm • http://www.eoearth.org/article/Genetic_variation • http://www.wellcometreeoflife.org/ • https://www.youtube.com/watch?v=aTftyFboC_M • https://www.youtube.com/watch?v=fHS-OY9XDZc • https://www.huffingtonpost.com/james-a-shapiro/variation-and-selection-w_b_1522314.html(an abstract) for detailed information:learn.genetics.utah.edu/content/selection/
Business Studies	• To learn and apply the quantitative analysis and to learn the significance of each technique	1. Explain why appraising investment projects is essential. 2. Evaluate the usefulness of the following methods: a. Payback Period Method	www.bized.co.uk www.tutor2u.net

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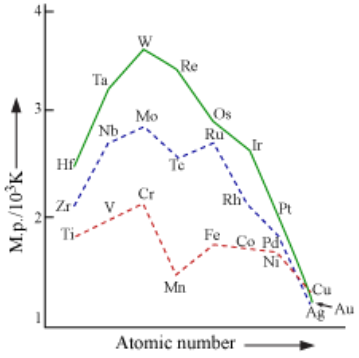
		b. Average Rate of Return Method c. Net Present Value Method	
Chemistry	**Discussion based on gap analysis** **<u>Transition elements</u>:** • Explain the properties of transition metals. Also, compare properties with s block elements. • describe and explain the reactions of transition elements with ligands to form complexes, including the complexes of copper(II) and cobalt(II) ions with water and ammonia molecules and hydroxide and chloride ions • Describe the shapes of transition metal complexes. • Describe, in qualitative terms, the effects of different ligands on absorption, and hence colour, using the complexes of copper(II) ions with water and ammonia molecules and hydroxide and chloride ions as ligands • Describe and explain ligand exchanges in terms of competing equilibria **<u>Equilibria</u>**	• Practice writing electronic configuration of transition elements and ions. • Explore the shapes of d subshell. • Analyse the graph and suggest possible reason for the trends.  • Research about ligands, prepare a flow chart to show various types of ligands. Understand the differences	https://xtremepapers.xyz/revision/a-level/chemistry/inorganic/transition/features.php https://chem.libretexts.org/Textbook_Maps/General_Chemistry/Map%3A_General_Chemistry_(Petrucci_et_al.)/23%3A_The_Transition_Elements/23.1%3A_General_Properties_of_Transition_Metals http://www.docbrown.info/page07/ASA2ptable2.htm https://www.memrise.com/course/161010/ocr-chemistry-a2-f325-definitions/3/ https://revisionworld.com/a2-level-level-revision/chemistry/periodic-table/transition-metals

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	• To use solubility product for sparingly soluble salts • To justify the formation of a precipitate using common ion effect. • To deduce partition coefficient (Kpc) for a solute partitioned between two immiscible solvents and use it in calculations.	between coordination number and valency. • Practice writing the equations of transition metals complexes with various ligands and suggest observable changes. Write an expression for *Kstab*. • Create a research paper on the importance of common ion effect (give some real-life examples). • Practice solubility product expressions for five sparingly soluble salt	http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch12/complex.php https://www.chem.tamu.edu/class/fyp/keeney/chapter18b-f07.pdf https://www.chem.purdue.edu/gchelp/howtosolveit/Equilibrium/Solubility_Products.htm https://www.chemguide.co.uk/physical/ksp/commonion.html https://instruct.uwo.ca/chemistry/020inter/SolubilityProductNotes.pdf
Economics	• To discuss the various forms of reginal economic integration and compare it with globalization. • To analyze the costs and benefits of globalization • Analyse whether the EU has been a failed experiment.	Based on the Video Link analyze the causes and consequences of globalization with reference to any country of your choice. Identify the benefits and drawbacks of globalization, and discuss whether globalization is likely to improve lives or not. https://tinyurl.com/mun76ejs	www.tutor2u.net

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		2. Based on the Video stimulus links provided below and your own research 1. https://tinyurl.com/mr3435u7 2. https://tinyurl.com/4fdecxkv discuss if economic integration benefits only rich countries or this partnership might be beneficial for all.	
Mathematics Statistics 2	**Pure Mathematics** **Differentiation** • Use the derivatives of e^x, ln x, sinx, cos x, tanx, $\tan^{-1} x$, together with constant multiples, sums, differences and composites • Differentiate products and quotients using product and quotient rule. Evaluate and use the first derivative of a function which is defined parametrically or implicitly	Self evaluate and summarize your learning in the form of notes, mind map with variety of examples.	**https://www.khanacademy.org/math/ap-calculus-ab/ab-differentiation-1-new/ab-2-8/a/product-rule-review** **https://tutorial.math.lamar.edu/classes/calci/productquotientrule.aspx** **https://www.mathcentre.ac.uk/resources/uploaded/mc-ty-product-2009-1.pdf** **https://revisionmaths.com/advanced-level-maths-revision/pure-maths/calculus/parametric-differentiation**

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	Mechanics **Forces and Equilibrium** Apply Newton's laws of motion to the linear motion of a particle of constant mass moving under the action of constant forces, which may include friction, tension in an inextensible string and thrust in a connecting rod Solve simple problems which may be modelled as the motion of a particle moving vertically or on an inclined plane with constant acceleration solve simple problems which may be modelled as the motion of connected particles.	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 the system and applying Newton's laws of motion	https://www.vivaxsolutions.com/maths/alpulleys.aspx https://www.a-levelphysicstutor.com/m-kinetics-con-partcls.php
	Statistics 1 Probability BINOMIAL DISTRIBUTION • Calculate binomial probabilities using the notation X~B(n,p) • Calculate expectation and variance for a binomial distribution. • Calculate expectation of a binomial distribution • Recognise practical situations where these distributions are suitable models.	• Model a situation on binomial distribution on real life situation. • Differentiate binomial and geometric distributions with suitable example.	https://revisionmaths.com/advanced-level-maths-revision/statistics/permutations-and-combinations https://revisionmaths.com/advanced-level-maths-revision/statistics/probability

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	Statistics 2 **Continuous Random Variable** • Solve application problems using the result of E(aX + b), Var(aX+b), E(aX+bY) and Var(aX+bY) • Apply probability density function to solve application problems involving probabilities and to calculate the mean and variance of a distribution.	Self evaluate and summarise your learning in the form of notes, mind map with variety of examples	https://www.statlect.com/probability-distributions/normal-distribution-linear-combinations https://revisionmaths.com/advanced-level-maths-revision/statistics/continuous-random-variables
Psychology	Abnormal Psychology Anxiety Disorders Phobias	Consider **any one** of these phobias (Anxiety disorders) **to illustrate using a case study.** **Make a powerpoint presentation on** agoraphobia, blood phobia or dog phobia. Your research should include an **explanation** from **one** school of thought- Behavioural (classical conditioning) Psychoanalytic (Freud, 1909),Biomedical/genetic (Ost, 1992) OR cognitive (e.g. DiNardo et al., 1988).	www.psychexchange.co.uk; www.intute.com; www.hola.karoo.net www.psychologyabout.com

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Physics	**Discussion based on gap analysis** **<u>Capacitance</u>** • Analyse graphs of the variation with time of potential difference, charge and current for a capacitor discharging through a resistor • recall and use $\tau = RC$ for the time constant for a capacitor discharging through a resistor **<u>Ideal Gases</u>** • Solve problems using the equation of state for an ideal gas • Interpret Brownian motion in terms of the movement of molecules • State the assumptions of the kinetic theory of gases	• Sketch Voltage-time, Current-time and Charge-time graphs for charging and discharging of a capacitor • State and explain in terms of the kinetic model • Examine what happens to the pressure inside a tyre when more molecules at the same temperature are pumped into the tyre	• https://www.savemyexams.co.uk/a-level/physics/aqa/17/revision-notes/7-fields--their-consequences/7-7-capacitor-charge--discharge/7-7-1-charge--discharge-graphs/ • https://www.scienceandmathsrevision.co.uk/topic/charging-and-discharging-capacitors/ • http://physicsnet.co.uk/a-level-physics-as-a2/thermal-physics/thermal-energy/

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Sociology	To assess the role of cults and sects in religion	Research on the different cults and sects in different countries. Make a table to display the countries and the sects of religion in each of the countries. Prepare a prezi – presentation to exhibit your findings at a global level	www.sociology.org.uk www.tes.co.uk
English Language	Read a Wikipedia entry on an exotic flora or fauna. Watch a documentary on the same flora and or fauna chosen. Compare the treatment of the same subject through different mediums.	• Read a Wikipedia entry on an exotic flora or fauna. Watch a documentary on the same flora and or fauna chosen. Compare the treatment of the same subject through different mediums by analysing the following. 1. The development of topic 2. Lexical and semantic use 3. Orthography Morphology	https://www.wikipedia.org/ www.youtube.com www.bbcwildlife.com www.natgeo.com
Information Technology	**Networks** • To describe components within a network and understand band width, bit rate, bit streaming and the importance of bandwidth	• Explore the files available on an organization's file server. • Find out what documents and permissions that are available to employees.	https://fossbytes.com/networ king-devices-and-hardwaretypes/ https://en.wikibooks.org/wiki/Network_Plus_Certification/Devices/Common_Devices

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	To understand different methods of data transmission describe protocols.	Research about the different types of networking devices.	
Computer Science	Declarative programming (Prolog): • To demonstrate an ability to solve a problem by writing appropriate facts and rules based on supplied information • To demonstrate an ability to write code that can satisfy a goal using facts and rules	• Encourage your child to develop a software project to include the following: • Create a software database which can handle the files using Prolog concept	Prolog: www.learnprolognow.org/lpnpage.php?pageid=implementations
Travel and Tourism	To evaluate the KPI in monitoring the destination branding process.	• Research on how margin of satisfaction and price-quality ratio could be used as key performance indicators (KPIs) for monitoring the effectiveness of the destination brand	https://www.e-unwto.org/doi/pdf/10.18111/9789284418527.1
Arabic (Arabs)	TOPIC: قصة نظرة الاستعارة **)Learning objectives:** - أن يحدد الصورة الفنية في النص - أن يقارن بين نصين أدبيين مقارنة أدبية	يحلل عناصر القصة (شخصيات زمكان عقدة حل أحداث) يدلل على تقنيات الكاتب (سرد وصف حوار استرجاع مفارقة)	https://www.youtube.com/watch?v=Ub_XTxURZnY https://www.youtube.com/watch?v=kJb13j88GKc

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	- أن يحدد دور التصوير والقيم البلاغية في النص . - أن يحلل دور المكان في القصة - يميز نوعي الاستعارة ويمثل لهما	يضع نهاية مختلفة للقصة مع / عكس سير الأحداث يميز بين الاستعارة والتشبيه يدلل على نوعي الاستعارة من القرآن والشعر	
Islamic Studies Arabs	TOPIC: التواصل الاجتماعي سلوك وآداب **Learning objectives:** يفسر المفردات الواردة في الآيات يحدد الأحكام التي اشتملت عليها الآيات	يستنتج التدابير الوقائية لجريمة الزنا يبين ضوابط دخول بيوت الآخرين	https://www.youtube.com/watch?v=DOwWsVAJ8Uk

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Islamic Studies Non Arabs	**TOPIC: INCIDENT OF IFK** **THE SLANDER AGAINST AYESHA (RA)** Learning objectives: • To appreciate the magnificient character of Ayesha(RA)To comprehend the consequences of rumors on individual and society	SEARCH AN EXAMPLE FROM SEERAH THAT SHOWS HOW DOES SPREADING RUMOR IS DANGEROUS. HOW CAN WE SAVE OURSELVES FROM BELIEVING THE RUMORS? RECORD THE VIDEO.	https://www.youtube.com/watch?v=FB0fPgytIWc&t=988s&ab_channel=NoumanAliKhan-Official-Bayyinah
Art & Design	Learners to explore and build on their subject of interest. To encourage independent expression and the development of a critical, reflective practice. To accommodate a wide range of abilities, materials and resources, and allow the different skills to be fully exploited critically.	Communication: purposeful trials of art works to communicate, from the simplest sketch to the most complex work. The need to understand the relationship about the chosen subject and the works that will build on critical and purposeful influences transformed into original outcome. To demonstrate understanding of conveying a personal response though fine art, working to a theme and considering artistic constraints and problems.	

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