



Subject	Focus	Activities	Useful website
Additional 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 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 	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 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.bbc.com/bitesize/guides/zyj77ty/revision/1 https://revisionmaths.com/advanced-level-maths-revision/pure-maths/calculus/differentiationhttps://www.britannica.com/science/analysis-mathematics/Calculus#ref731796https://www.intmath.com/applications-differentiation/applications-of-differentiation-intro.phphttp://www.statistica.com.au/differentiation max and min.html https://www.mathsisfun.com/calculus/integration-introduction.html https://www.bbc.com/bitesize/guides/zgxttfr/revision/1
Mathematics Extended	Transformation Learning objective:	 Create interactive foldable notes(lapbook) on transformations 	https://youtu.be/VKiMAV2N2Qg https://youtu.be/k8VimF7l5Ll https://youtu.be/l9aRKwuq7s4





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- Reflect, rotate, translate and enlarge shapes.
- Describe the transformations given the object and image.
- Perform different transformations on an object.
- Do the inverse of a transformation

Bearings

Learning objective:

- Interpret and use three-figure bearings.
- Describe bearings
- Interpret the diagram and identify the correct rule to apply and solve
- Analyse and apply the rules of trigonometry to solve word problems related with bearings

- Create a transformation of Logos of cars seen in UAE.
- Research and explore the effects of applying various transformations to a shape
- Reflection puzzles.
- The left sandal is reflected across a line drawn between two points in the grid to make a right sandal. Can you move A and B to find the line of reflection?
- Play golf using transformation using mobile or PC's. Try to get the golf ball into the hole with the least number of moves.

Research on applications of bearings to make coded messages.

Burj Khalifa is 12 km from Atlantis, on a bearing of 083°, whereas Burj Al Arab is 7km from Atlantis, on a bearing of 016°.

Calculate the distance and bearing of Burj Al Arab from Burj Khalifa.

https://youtu.be/DkcC3yDPXcQ https://youtu.be/a8Bh4N044B8 https://youtu.be/tfEUqGbqOE

https://www.onlinemathlearning.com/transformation-games.html

https://youtu.be/ACXWbkhDW44 https://youtu.be/njx-IP4AR1g https://youtu.be/uCXWXZKEnXA https://youtu.be/-uH8YQuOYDE https://youtu.be/KfF6rH1VGzs https://youtu.be/jnjRBawGJ_c https://youtu.be/NTBKKQXviN8

English 1st Language

Revision

- To be able to practise the various
- Go through the various links provided to you and then attempt the following task.
- Prepare a Glogster on any Descriptive Writing topic of your choice.

http://igcse-

<u>revision.wikispaces.com/La nguage+Exa</u> <u>m http://classroom.synonym.c om/diff</u>





	skills that are needed for the IGCSE exam	 Prepare a short video using the Narrative Writing rules. 	erence-betweendiscursive- argumentativeessays-2616.html
English 2 nd Language	Reading Comprehension Letter Writing Article Writing Vocabulary Features of Academic Writing Skimming and scanning skills Article format Letter format Complex sentence structure Structuring a paragraph	 Imagine you have invented a new device. Write a letter to your friend telling him/her what it is. Why you invented it, what inspired you and how useful it is? Also mention the concerns you have about the device. Write an article for your school magazine on your views about the idea of having compulsory after school lessons. 	www.englishforeveryone.or g http://esligcse.webs.com www.streetdi rector y.com//benefits of after school programs.html
English Literature	To enhance understanding of short story as a genre	 Research on the features of short story as a genre. How does it differ from a novel? How does it affect the reader differently? What are the constraints and benefits of the genre? Research on the famous short story writers of the 20th and 21st century 	www.gutenberg.org





Biology	Reproduction in plants & Humans	Reproduction in plants & Humans	Reproduction in plants & humans
Chemistry	 Define asexual reproduction and describe asexual reproduction in: bacteria spore production in fungi tuber formation in potatoes Discuss the advantages and disadvantages to a species of asexual reproduction Identify on diagrams the organs of male & female reproductive system and state the functions of these parts. Describe the menstrual cycle in terms of changes in the uterus and ovaries Describe fertilization and outline early development of the zygote simply in terms of the formation of a ball of cells that becomes implanted in the wall of the uterus Outline the development of the fetus:describe the function of the placenta and the umbilical cord in relation to Describe the ante-natal care of pregnant women including special dietary needs and maintaining good health Polymers: 	 Students can make a report on how horticulturists exploit asexual reproduction in bulbs and rhizomes e.g. daffodils, orchids. Students can create an infographic poster comparing asexual reproduction in plants, bacteria & fungi Students can make a flow chart or a graphical representation to demonstrate menstrual cycle and the levels of hormones associated at different phase of it. Students can outline the stages of an zygote from fertilization until it gets implanted in the endometrium 	 https://www.youtube.com/watc h?v=7zzp37y5DFg https://www.youtube.com/watc h?v=DY9DNWcqxI4 https://www.youtube.com/watc h?v=3O7icCqFfEo https://www.youtube.com/watc h?v=vXrQ_FhZmos https://www.youtube.com/watc h?v=0xvJ-NNuR6M
Chemistry	i diyincis.	<u>l</u>]





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- To enlist the uses of polymers.
- To explore, compare and contrast the types of polymerization with examples.
- To discuss and justify that polymers are the necessary evils to humans.

Electrolytic cells:

 Describing the set up and working of electrochemical cells.

Factors affecting rate of reaction

- To outline the effect of concentration, particle size, catalysts (including enzymes) and temperature on the rate of reactions.
- To elaborate the chemistry of photochemical reactions.

- Design and present an infographic poster using CANAVA / Glogster to describe the set up and working of electrochemical cells.
- Create the wall using jam board to elaborate the various factors affecting the rate of chemical reactions.
- Make a flow chart to compare condensation and additional polymerization. Mention their uses. Use Piktochart/Canvas.
- Make any 5 quiz questions on the topic photochemical reactions.

https://www.slideshare.net/shaunoff/8-15259490

https://www.savemyexams.co.uk/notes/igcse-chemistry-cie-new/14-organic-chemistry/14-3-polymers/14-3-1-polymers/

https://www.savemyexams.co.uk/notes/igcse-chemistry-cie-new/7-chemical-reactions/7-1-change-rate-of-reaction/7-1-2-rate-speed-of-reaction/





Physics	Thermal Transfer	Research on	• https://www.physicsclassroom.com/
	 Methods of heat transfer To explain methods of heat Transfer Conduction, Convection, radiation & its application 	 How do thermo flask work ? Relate thermal radiation with kinetic energy of atoms. 	 class/thermalP/Lesson-1/Methods- of-Heat-Transfer https://www.savemyexams.co.uk/no tes/igcse-physics-cie-new/2-thermal- physics/2-3-thermal-processes/2-3- 1-conduction/
	 Momentum To understand that mass is the property of a body that resists change in motion. To relate force with momentum 		 http://www.scienceclarified.com/ev eryday/Real-Life-Chemistry-Vol-3- Physics-Vol-1/Momentum.html
			http://www.physicsclassroom.com/c lass/momentum/Lesson-1/Real- World-Applications
FOOD AND NUTRITION	 Convenience food Cooking of food Sensory Evaluation 	 How Cooking Affects the Nutrient Content of Foods Use different visual aids to show how water, light and air affect nutrients Cut out pictures of cooked foods from magazines and sort into groups of cooked and raw. Paste them onto card 	http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Food processing and nutrition'Food processing and nutrition'. http://www.choice.com.au/reviews-and-tests/food-and-health/food-and-





		 and design a game, (eg, like snap or happy families) matching the raw and cooked foods. Since fire was discovered, people have been cooking. Find out how fire was discovered and how it changed the way people prepared food. Design an experiment to see what 	drink/nutrition/are-fresh-vegies-better.aspx Are fresh veggies better?
Computer	Logic Circuits	happens to an egg when heat is applied. Adapt the chocolate cake recipe to make something different. • Encourage your child to design the	Logic Circuit: Application Example of
Science	 Students will be able to define the functions of different gates, including the binary output produced from all the possible binary inputs. Students will be able to produce truth tables for given logic circuits. Students will be able to recognize and use the standard symbols used to represent logic gates. 	 digital circuit system of the vehicle with two sensors as input. Also ask them to discover the practical use of the circuit. Motivate your child to construct a truth table for the digital circuit system they developed. Discuss with your child about design procedures for designing combinational circuits. Support your child to explore different online applications for developing logic circuits. 	Logic Circuits Toshiba Electronic Devices & Storage Corporation Americas – United States (semiconstorage.com)





ICT	Data Manipulation		https://www.computerhope.com/jargon
	To create a real-life database, create effective reports, data entry forms and labels.	 Data Manipulation is used for storing and accessing large volume of data, organized in a structured manner. Encourage your child to explore about the significance of using database. Discuss the importance of maintaining relation of tables in a database Share with your child different methods of how data is stored, data types specified. Motivate your child to analyze organizing data, creating a query, a report Share the difference between primary key and foreign key. Discuss with your child about reallife scenario and create a database report on it. 	/d/datamani.htm https://www.computerhope.com/jargo n/d/datamani.htm https://mrlawsonsclassroom.weebly.co m/igcse-ict.html
Art and design	Growing independence in the refinement and development of ideas and personal outcomes	Apply Creativity, visual awareness, critical understanding an imaginative, creative and personal response.	www.studentartguide.com
Environmental	To use sampling techniques in estimating	Investigate how to use various sampling	https://www.bbc.co.uk/bitesize/guides/
Management	and measuring biodiversity	techniques and equipment to estimate and	z8s2v9q/revision/3
		measure biodiversity.	https://www2.nau.edu/lrm22/lessons/q
		Quadrat sampling	uadrat/quadrat.html





		Transect sampling	
Geography	Alternative to coursework Methods of data collection, data analysis and presentation.	Investigate the methods of collecting data (Primary). List the advantages and disadvantages of each method. Describe sampling techniques. Identify the differences between random and systematic sampling. How would you test a hypothesis for a field study?	https://igcsegeography.wordpress.com/revision-materials/paper-4-alternative-to-coursework/
History	The cold war	Use the internet to research the Hungarian uprising of 1956 and uprising in Czechoslovakia in 1968. Evaluate the sources to create a comparative analysis of Hungarian uprising of 1956 and uprising in Czechoslovakia in 1968.	 https://digitalarchive.wilsoncenter.org/collection/9/1956-polish-and-hungarian-crises https://www.youtube.com/watch?v=WNYVJjyoqWQ https://www.rferl.org/a/prague-spring-invasion-czech-soviet/29435069.html https://www.youtube.com/watch?v=-F4du579rcg
Sociology	Social Inequality	To what extend is class still the main form of stratification in modern industrial societies? [20]	https://www.youtube.com/watch?v=hY Mk3Bk08NA





	To assess the sociological explanations of class	Use various sources to conduct your research and then answer the question.	
Psychology	 Factors that affect sleep To describe the functions of sleep. To examine the factors affecting sleep and Siffre's study. 	Use the internet to investigate Stages and patterns of sleep. How do the stages of sleep fulfil different roles for the body and mind? Examine the factors that influence sleep. Create revision flash cards on this this topic.	 https://my.clevelandclinic.org/he alth/diseases/12781-jet-lag https://healthysleep.med.harvard .edu/healthy/science/how/extern al-factors https://www.frontiersin.org/articl es/10.3389/fpsyg.2015.01717/full
Global Perspectives	Individual report To write an individual report on one chosen topic.	You will write an individual report of between 1500-2000 words. Follow the following guidelines: • choose on topic from the 8 topics specified for IR in the syllabus • identify one key global issue in the topic • create a research question • research the topic using various reliable sources Present your research in a form of a report. This should have the following: • Introduction • various perspectives	Various reliable sources chosen by the student.





		 Analysis of causes and consequences Evaluation of sources reflection and conclusion Citation of sources 	
PHYSICAL EDUCATION	Fitness, Diet and energy sources Revision.	 Research on the process of aerobic and anaerobic respiration to explain how energy is derived from food sources. Sketch a flowchart showing how health, exercise, fitness and performance are connected. 	 www.bbc.co.uk www.teachpe.com
French	Special occasions Revision Jours de fêtes On fait la fête avec les copains Une occasion spéciale Le passé composé L'accord au passé composé	 Writing: To describe and speak about a special event (wedding/anniversary/graduation) using the past tense. Speaking: To describe and speak about a special event (wedding/anniversary/graduation) using the past tense. Listening: https://app.wizer.me/preview/U4TR07 	 Vocabularies: https://francais.lingolia.com/fr/voca bulaire/jours-de-fetes https://www.espacefrancais.com/ex pressions-et-locutions-autour-du- mot-fete/ https://www.francaisfacile.com/exer cices/exercice-francais-2/exercice- francais-102253.php





		 https://www.liveworksheets.com/lt367656 ii https://lebaobabbleu.com/2019/04/03/coune-fete-originale/ Reading: https://franchementfle.fr/2021/05/11/a2-organiser-une-fete-offrir-descadeaux/ https://bonjourdefrance.com/lessons/a1/preparationDelf/864 	 https://www.podcastfrancaisfacile.c om/vocabulaire/vocabulaire-la- fete.html Le passé composé: https://francais.lingolia.com/en/gra mmar/tenses/le-passe-compose https://www.youtube.com/watch?v =yrL2nPF83no https://francais.lingolia.com/en/gra mmar/tenses/le-passe- compose/exercises
Arabic (Arabs)	TOPIC:اسم التفضيل		https://www.tolearnfrench.com/exercises/exercise-french-2/exercise-french-47347.php
	Learning objectives: - أن يحدد الطالب اسم التفضيل من القطعة أن يستنتج صور اسم التفضيل من الفعل الثلاثي وغير الثلاثي.	مثّل لكل نوع من أنواع اسم التفضيل: مجرد من أل والإضافة . محلى بأل - هات مثالا لا: لتمييز وقع بعد أفعل التفضيل. يأتي الطلاب بأمثلة	https://www.youtube.com/watch?v=pl5 BGnN-Cdc
	- أن يوظّف اسم التفضيل في مواقف حياتيّة.	عن التفضيل ،يعرض فيها مقارنات بين الإمارات وبعض الدول المتقدمة	





	TOPIC	سجل بعض خصائص النص كما تراها	
	نظارة طبية قصة قصيرة	- حلل أحد التشبيهات الموجودة في النص .	http://www.qyias.com/quizzes/2016/2
	Learning objectives:	- حدد عناصر القصة القصيرة	<u>5</u>
	أن يحدد الطالب كيف نصل إلى الفكرة العامة في القصة؟	- حلل قصة انظارة طبية إلى عناصرها - اعد كتابة القصة مرة ثانية باسلوبك الخاص	
	أن يحدد الطالب الفكرة الرئيسة في القصة .	ً	
	أن يوضح الطالب العبارات والصور البيانية موضحًا تأثيرها في رسم الشخصية.	قارن بين هذه القصة وقصة أخرى من الأدب العربي- إجراء اختبار ختامي قصير للتأكد من مستوى التعلم لدى الطلاب	http://www.almaany.com/ar/dict/ar- ar
	- أن يحدد الطالب المعنى المناسب للكلمات متعددة المعاني من خلال السياق.	من خلال ورقة	
	أن يحدد الطالب كيف يقدم الكاتب الشخصية الرئيسة وأهميتها في القصة.		
	- أن يحلل المتعلم الشخصيات من خلال أفكارها وأفعالها وأقوالها.		
	أن يتتبع الطالب التقنيات التي استخدمها الكاتب من أجل وصف شخصياتها .		
Islamic Education (Arabs)	معالم التخطيط في سيرة الرسول (ص)- آداب TOPIC: الحوار	يحرص على الالتزام بآداب الحوار-ويقتدي بالرسول صاى الله عليه وسلم في حياتة يكتب بحثا عن معلم التخطيط في حياة الرسول (ص)	https://www.youtube.com/watch?v=IK 1SkELeVY





Islamic Education (Non Arabs)	Learning objectives: أن يستنتج آداب الحوار والاستماع في الإسلام مع الاستدلال بالقرآن والسنة والسنة المحاور في الإسلام المحاور في الإسلام المحاور في الإسلام وضح منهج النبي (ص) في التخطيط وضح منهج النبي (ص) في التخطيط يوضح أهم جوانب الاقتداء في حياته المحاود: 1. The Holy Quran and the Scientific Miracles -Define the concept of scientific miracles -Compare scientific miracles to scientific exposition -Clarify the importance of scientific miracles 2. Etiquettes of Dialogue	Write an essay or a journal report about Miracles in Al Quran Al Kareem. Design an awareness bulletin on the importance of the etiquettes of dialogue	https://www.youtube.com/watch?v=er GmdSPQ1xs https://www.youtube.com/watch?v=69 XTD46v4qU
	Etiquettes of Dialogue To comprehend the importance of etiquettes of dialogue.(by referencing Quran & Hadeeth)		





	 To clarify the concept of freedom of speech and intolerance. (by examples of real life). To evaluate the consequences of ill-mannered speech on an individual and on the society. 		
Accounting	Business partnerships To prepare relevant financial statement pertaining to partnership businesses.	 Research about the businesses in UAE, and compare and contrast how a partnership business is different from sole trading business. Evaluate the financial statements prepared at the end of the financial year. Produce a partnership agreement. 	 www.dineshbakshi.com www.cie.org.uk www.myaccountinglab.com
Economics	Taxes To analyse how governments use taxation to affect the distribution of income.	 Use examples to contrast a direct tax with an indirect tax. Create a mind-map using mind-meister to analyse the advantages and disadvantages of direct & indirect taxes. Choose a country and comment briefly on its tax system and also, analyse how the government might use taxation to affect the distribution of income. (In not more than 150 words) 	 https://www.adityabirlacapital.com/ abc-of-money/direct-vs-indirect-tax- what-is-the-difference https://www.ionos.com/startupguid e/grow-your-business/direct-and- indirect-tax/





			•	https://www.adityabirlacapital.com/abc-of-money/advantages-and-disadvantages-of-indirect-taxes#:~:text=Thus%2C%20indirect%20taxes%20have%20both,own%20place%20in%20the%20economy.
Business Studies	Quality Assurance and Quality control.	 Choose at least two tasks from each row. You can attempt more tasks to gain more marks. What you understand by term Total Quality Management? Give Example (3 marks) Create a Mind Map on Quality marks or Quality standards (5 Marks) Compare and contrast the features of Quality Control and Quality Assurance with examples on A3 Poster (10 marks) Write a poem or a rap song on the advantages of maintaining the quality in business. Create a Prezi or Sway highlighting the implementation of TQM with example. (15 marks) Write a report on "ISO". Select an ISO approved business Analysis the advantages the business have obtain from the ISO standards (20 marks) 	•	www.tutor2u.net www.dineshbakshi.com





Travel and	ICT in Travel and Tourism	 Collect information from websites and 	www.bized.co.uk
Tourism	To analyse the use of ICT in Tourism Industry	explain how Travel and tourism providers make use of computerised information systems and relevant technology to obtain information (World span, Sabre, Galileo, World Wide Web).	Local travel Magazines www.tutor2u.net