



Summer Aim High Study Progress Programme Year 10

February 2024

Area for learning	Focus	Activities	Useful Websites/Apps
English 1st Language	Summary Writing	Follow the link mentioned to understand the summary writing tips	https://henriksenenglish.wikis paces.com/file/view/Examiner +Tips.pdf
		 Read any article on science and technology from any leading newspaper and attempt to 	http://gulfnews.com/ https://www.khaleejtimes.co
English	Writing/Composition skills	 summarize the key points Read newspaper and magazine 	m/ http://www.wikihow.com/Wri
2 nd Language	vviiding/ composition skins	articles Read samples of formal and informal	te-an-Article-for-Your-School- Newspaper
		 Annotate the articles and letters to identify the use of a range of 	http://www.wikihow.com/Wri te-a-Magazine-Article
		punctuation, vocabulary, connectives, complex sentence structures and variation in the length	http://www.writesmart.com.a u/pages/articles.php
		and structure of the sentencesSummarize the newspaper and magazine articles in your own words	http://www.criminology.fsu.e du/penology/samplenewspap erarticles.htm

English	Comparing short stories with	 Indulge in conversation on the current events, sports, movies or topics of your choice with your parents, friends, relatives and sometimes with strangers as well. Listen to their ideas, incorporate their ideas, add your own ideas and write articles or letters on these topics. Research on different non-linear 	ricshowc.cfm?sp=true&code= U397CW& http://volweb.utk.edu/Schools /bedford/harrisms/letterrubric .htm
Literature	the novel being read in class	functions and their graphing. Do you notice any pattern in the shape of the graph of different functions? Research on the applications of travel graphs. Make notes on the important points of distance - time and speed – time graph	sets/graph-equation.html https://www.bbc.co.uk/bitesiz e/guides/zydmsrd/revision/1 https://www.youtube.com/wa tch?v=wSPrXv7-8GQ https://www.youtube.com/wa tch?v=pG1JHsFi6cQ Graphs of quadratic functions - Solving quadratic equations - Edexcel - GCSE Maths Revision - Edexcel - BBC Bitesize
Mathematics	Differentiation	Make a list of derivatives of	https://www.youtube.com/wa
(Accelerated)	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	 simple functions Research on the applications of differentiation. How do you find maximum and minimum points using differentiation? 	tch?v=9Al3BkKQhn0 https://www.youtube.com/wa tch?v=u7UwkUH0c1c https://www.youtube.com/wa tch?v=AUbTx0IdTlw https://www.youtube.com/wa
	at a point.	unierentiation?	tch?v=WCq3sRzsJfs

To locate maximum and minimum points on the graph To sketch a quadratic graph

FUNCTIONS

To use function notation to describe simple functions, to find the value of a function. To find the inverse of a function.

To find composite of a function and it's application

Travel graph:

Interpret and calculate the total distance, average speed and acceleration from the given distance time graph

Interpret and calculate the acceleration from the gradient and the total distance travelled as area under a speed-time graph.

Investigate about different functions. How can you find the value of a function?

Research on the application of changing subject of a formula in finding the inverse of a function.

 Research on the applications of travel graphs. Make notes on the important points of distance time and speed – time graphs https://www.youtube.com/wa
tch?v=Y0QPJjso 9w

https://www.mathsisfun.com/sets/function.html
https://www.mathsisfun.com/sets/function-inverse.html
https://www.purplemath.com/modules/invrsfcn3.htm
https://www.onlinemathlearning.com/composite-functions.html

https://www.bbc.co.uk/bitesiz e/guides/z2wy6yc/revision/3 https://mathsmadeeasy.co.uk/ gcse-maths-revision/distancetime-graphs-gcse-revisionand-worksheets/ https://www.bbc.co.uk/bitesiz e/guides/zxrtw6f/revision/2 https://www.savemyexams.co .uk/notes/cie-igcse-mathsnew/2-algebra-graphs-cie/2-13-speed-distance-time-cie/2-13-2-speed-time-graphs-cie/

Mathematics

(Extended)

Learning objective:

Sequences

To determine the nth term of an arithmetic, quadratic, geometric and cubic sequence

- *Research on examples of sequences in real life.
- * A theatre has twenty rows. The first row has 18 seats and each successive seat has 2 more seats than the previous

https://www.youtube.com/wa tch?v=OysVg8GPMP0 https://www.youtube.com/wa tch?v=ahvT3FWjXvs https://www.youtube.com/wa tch?v=hKli3maQm6k

	To find the nth term from and use this to generate any given term Sets and Venn Diagrams Learning objective: Use set notation and Venn diagrams to describe sets and represent relationships between sets To describe the set notations by shading in Venn diagrams. To apply Sets and Venn diagrams in practical situations by categorizing data.	rows. How many seats are in the last row? *Research the importance of the application of sequences. • Make a glossary of different terms used in Sets and their notations. Add one example for each of those. • Research on real-life application of sets and Venn diagrams.	https://www.youtube.com/watch?v=5NY6CpB2Mog) https://www.youtube.com/watch?v=ahvT3FWjXvs&t=385shttps://www.youtube.com/watch?v=glT0YXO1XFY https://www.youtube.com/watch?v=eQpbHw-dWRUhttps://www.youtube.com/watch?v=4gLr9fmJDNghttps://www.youtube.com/watch?v=XidkM5J3OQU&t=35shttps://www.youtube.com/watch?v=CRnh3Vb5BdYhttps://www.youtube.com/watch?v=TaOww4di7pshttps://www.youtube.com/watch?v=TaOww4di7pshttps://www.youtube.com/watch?v=XduDKpLwez4https://www.youtube.com/watch?v=RjvLjyHgCmIhttps://
			w.youtube.com/watch?v=QkO E3IZbKm8
Statistics	TOPIC: Summarising Data: Quartiles, standard deviation, Comparing data set Calculate the range, quartiles, percentiles and interquartile range for discrete and continuous data, calculate the inter percentile range and inter decile range Calculate the standard deviation, compare data samples and to compare	interquartile range, difference between measures of dispersion with measures of centrality by quoting real life examples	https://www.onlinemathlearning.com/percentile.html https://www.bbc.co.uk/bitesize/guides/z94297h/revision/4

Physics Refraction of light: To describe an experimental demonstration of the refraction of light. Total internal reflection: To describe the passage of light through parallel sided transparent material. To give the meaning of critical angle. To describe total internal reflection. Lens Describe the action of a thin converging lens on a beam of light Draw ray diagrams for the correction of short and far sightdness using convex and concave lens. Dispersion Give a qualitative account of the dispersion of light To describe an experimental in different situations, eg glass and their uses. Investigate on refractive materials in different situations, eg glass and their uses. In univertigate on refractive materials in different situations, eg glass and their uses. Investigate the effects of coloured lighting in shops, in theatres and on TV. Research on why when the ray travels from air to glass, the angle of refraction is smaller than the angle of incidence. Create a list of questions based on Bloom's taxonomy to check understanding of topic of your peers for the topic. Research and present your work on real life applications of correlation and regression of light. Research on why do we see a distorted view when we look through a window that is covered with raindrops? Research and explain the action of optical fibres particularly in medicine and communications technology Create a list of questions based on Bloom's taxonomy to check understanding of topic of your peers for the topic.
as shown by the action on

	light of a glass prism including the seven colours of the spectrum in their correct order		
Chemistry	 Explain electrolysis as the breakdown of an ionic compound, molten or in aqueous solution, by the passage of electricity Relate the products of electrolysis to the electrolyte and electrodes used, Construct ionic half-equations for reactions at the cathode and at the anode Describe the production of electrical energy from simple cells, Outline the uses of electroplating 	-Plan an experiment to separate to separate Hydrogen and Oxygen from water. Activity 2 -Create a poster in infographics "comparing the electrolysis of molten and aqueous Nacl". Activity 3 -Make a presentation on uses of the products formed as the result of electrolysis of Sea Water. Activity 4 Write an Article on Hydrogen production in UAE.	http://www1.lsbu.ac.uk/water /electrolysis.html https://www.boundless.com/c hemistry/textbooks/boundless -chemistry-textbook/electrochemistry-18/electrolysis-132/electrolysis-0f-sodium-chloride-529-3650/ http://scifun.chem.wisc.edu/c hemweek/PDF/Cl2&NaOH.pdf http://www.slideshare.net/lcy h000/sodium-hydroxide-industrial-use http://www.khaleeitimes.com /article/20100121/ARTICLE/30 1219900/1036
	Extraction of Metals -To elaborate, the extraction of aluminium from bauxite ore		http://www.bbc.co.uk/schools/gcsebitesize/science/add_ocr_pre_2011/chemicals/extractionmetalsrev1.shtml

	-To justify the role of cryolite in the extraction of aluminium. -To construct half-cell reactions at the respective electrodes.	Activity 1: Design and present an infographic poster using CANAVA /Glogster on the topic-Diagrammatic representation of Al production. Activity 2: Create a game or design a quiz on Kahoot to assess the understanding of the students for the topic: Extraction of metals by electrolysis	http://www.csun.edu/~ml727 939/coursework/695/rusting% 20rates%20of%20iron%20nails /rusting%20rates%20of%20iro n%20nails.htm
Biology	 To describe the alimentary process involved in digestion. To Describe the structure of human teeth, limited to enamel, dentine, pulp, nerves and cement, as well as the gums To Describe the proper care of teeth in terms of diet and regular brushing To describe significance of chemical digestion in the 	 Make a report on the main sources of each type of nutrient in their own country and also compare how diets differ in other parts of the world. Conduct an experiment in your home showing the process of digestion (Banana sandwich experiment) and compare the ingredients with the parts of digestive system in your report. Conduct an experiment to show the effect of various food stuffs on your teeth. 	http://emedicine.medscap e.com/article/1104623- overview https://www.youtube.com /watch?v=zoBLC tn3f0 https://youtu.be/aemI64N AK08 http://luvprek.blogspot.ae /2011/02/toothy- eggsperiment.html https://youtu.be/15NXrny T2HM http://acaai.org/allergies/t ypes/food-allergy

	alimentary canal in producing small, soluble Molecules that can be absorbed. To describe the roles of capillaries and lacteals in villi	Students make a research on the diseases caused by indigestion of food or food allergies.	
Food and Nutrition	Sources and functions of the following Nutritive value of foods: • vitamins (A, C, D, E, K, B group – thiamin, riboflavin, nicotinic acid and cobalamin) • mineral elements (calcium, iron, phosphorous, potassium, sodium, fluoride, chloride, iodide) • water • Sources and uses of food energy.	 The Nutrient Content of Food Use different visual aids to show how water, light and air affect nutrients Cut out pictures of foods from magazines and sort into Nutrient groups. Paste them onto card and design a game, (eg, like snap or happy families) matching the name of the nutrients with the sources and function. Design an experiment to see what happens to vitamins when heat is applied. Adapt any recipe containing carrot to make something different keeping in mind to retain the nutritive value as much as possible. 	Food a fact of life website - http://www.foodafactoflife.or g.uk/ The Eatwell plate- https://www.gov.uk/governm ent/publications/the-eatwell- guide Nutrients www.healthline.com/health/f ood-nutrition/six-essential- nutrients www.nia.nih.gov/health/impo rtant-nutrients-know-proteins- carbohydrates-and-fats
Economics	To develop independent researching on classification of firms.	Prepare a presentation in terms of primary/secondary/tertiary sectors and private/public sector, and the relative size of firms and their importance for country's output.	https://youtu.be/BP5ALr-3Q2o https://youtu.be/uOO4CIVUrk w

Accounting	 To developed analytical research on causes and forms of the growth of firms To analyse the concept of accrued expenses and prepaid expenses. To analyse the need and process of adjusting for accruals and prepayments in preparing financial statements. 	 Prepare a presentation on differentiation of Internal growth, for example increased market share. External growth, for example mergers by using real life examples. Analyse the advantages of preparing other payable and other receivable accounts and to analyze the procedures of double entries. Explain the importance of matching costs and revenue. 	https://youtu.be/0iWV98mJN Bk http://showmyupdates .blogspot.ae/2014/12/t rading-profit-loss-ac- and-balance- sheet 28.html https://www.youtube.c om/watch?v=T- imJYUi ug http://www.moneycon trol.com/india/financia ls/tatamotors/profit- loss/TM03 http://www.investope dia.com/terms/p/plstat ement.asp https://en.wikibooks.or g/wiki/Accountancy/Bo
			<u>oks of Prime Entry</u>
Business Studies	 To Know the processes involved in recruitment planning To prepare documentation on the importance of effective recruitment and 	Starbucks has one of the lowest rates of labour turnover of any large scale catering business. Here is a quote from one of its baristas: 'Starbucks really is a kind company. It gives its employees health insurance, good pay, opportunities	Recruitment and Selection Process in HRM - Business Study Notes

	selection of new	for career development and a real sense	Recruitment & Selection -
	employees.	of belonging. Concern for employee	Overview Business tutor2u
		welfare is genuine. All of its baristas are trained to make the customer happy.'	The recruitment process - Recruitment and selection -
		Analyse the benefits to Starbucks of extensive employee training. Research task: Use the following link to discover the tips that Starbucks offers job applicants: www. starbucks.co.uk/careers/interview-tips. Write a short report to Starbucks directors on the importance of effective recruitment and selection of new employees.	National 5 Business management Revision - BBC Bitesize
Travel and Tourism	To analyze the role, products, and services and appeal of travel agents and tour operators.	Research one travel agent and one tour operator: • List the types of products they offer and how they are being sustainable • suggest ways these organizations could be more sustainable using their current knowledge of sustainability	https://www.academia.edu/2 8325625/Examples of Produc ts and Services of Travel Ag ency
Sociology	Education: to assess the impact of gender, social class, ethnicity, including cultural, material and	To what extent does linguistic factor and material deprivation have an impact on the educational achievement of a child	IGCSE Sociology Coursebook Jonathan Blundell

	linguistic factors on educational achievements		
Psychology	Unit 3- Psychological Problems Treatments of Depression and Addiction Unit 11- Reaearch Methods Sampling Research Design	What is CBT? And how it is helpful in treating Depression and Addiction? Study the Learning theories that support the learning of faulty behaviours. Justify the different research designs being used for various kinds of research. Justify the different sampling and its types being used for various kinds of research.	tch?v=yzpHwo6jfXk https://www.youtube.com/wa tch?v=yzpHwo6jfXk https://www.youtube.com/wa tch?v=Yy8e4sw70ow
Geography	UNIT 3.2 FOOD PRODUCTION	What are the main features of ana agricultural system? What are the causes and effects of food shortage and what are the possible solutions to this problem? Create revision notes/ flashcards on the above.	Choose your own internet sources
History	Why did the Tsarist regime collapse in 1917?	First World War and Tsarist Regime- 1.Examine the problems facing the Tsar and the Russian people during the First World War.	https://www.bbc.co.uk/bitesiz e/guides/ztyk87h/revision/3

		2.Analyse the problems facing the Tsar	
		and the Russian people during the First	www.johndclare.net/Russ3.ht
		World War and sort it in order of relative	<u>m</u>
		importance.	
		Revolution of March 1917	www.youtube.com/watch?v=
			GQUAW CdBds&feature=relat
		1.Analyse the factors that led to the	ed
		1917 (March) revolution & evaluate the	
		factors and rank in order of importance.	
		2.Compare the revolution of 1905 with	
		1917 (March) & assess why in 1917 the	
		Tsar decided to abdicate.	
Environmental	Agriculture and the	Big Question: How can the work of one	United Nations Sustainable
Management	Environment:	individual create positive progress	Development Goals:
Management	Ziivii Oiliileitt.	toward a collective Global Goal?	https://sdgs.un.org/goals
	To understand the	toward a concetive Global Goal:	inteps.//sugs.un.org/godis
	framework of the Global	 Discover what Zero Hunger 	Sustainable Development Goal
	Goals for Sustainable	means by reviewing the	number 2:
	Development	background, targets and	https://www.un.org/sustainab
		indicators for Global Goal 2.	ledevelopment/hunger/
	Employ unique assets	2. Explore the work of the World	, , , , , , , , , ,
	and skills to create	Food Programme (WFP) & the	https://sdgs.un.org/goals/goal
	campaigns that raise	Five Steps to Zero Hunger.	2
	awareness to the issue of	Describe what you believe the	Watch the campaign video
	hunger, both global and	role and work of the World Food	"What Food Means: Fighting
	localised.	Programme is.	Hunger in Ethiopia":
	To examine the causes	3. Reflect: Is there anything	https://www.google.com/sear
	and impacts of hunger.	unexpected in the work of the	ch?q=What+Food+Means%3A
		WFP or in your ideas for	+Fighting+Hunger+in+Ethiopia.
		achieving Zero Hunger? Highlight	&rlz=1C1GCEU en-
		<u> </u>	

		and describe how ideas in the five steps link to your previous knowledge of sustainable development and the Global Goals.	GBAE1072AE1072&oq=What+ Food+Means%3A+Fighting+Hu nger+in+Ethiopia.&gs lcrp=Eg ZjaHJvbWUyBggAEEUYOdIBBzI 5MmowajeoAgCwAgA&source id=chrome&ie=UTF- 8#fpstate=ive&vld=cid:cb8fd1 db,vid:YGfjCjHKawM,st:0
ICT	Topic: Measuring and control devices Learning Objective:	 In every walk of life, computers are being used as measuring device and controlling device. Life is automated to a large extent. 	https://www.ictlounge.com/html/sensors_new.htm
	 To describe a range of measurement applications To explain the difference between analogue data and digital data To explain the need for conversion between analogue and digital data To describe the use of microprocessors and computers in a number of applications To discuss the advantages and disadvantages of using computers in measurement. 	 Help your child to research on the various range of measuring applications used around us. Create a report, specifying following concepts: Explain various measurement applications (e.g. scientific experiments, weather stations) Explain the difference between analogue data and digital data Explain the need for conversion between analogue and digital data Describe the use of microprocessors and computers in a number of applications (e.g. 	https://www.igcseict.info/the ory/2/sensor/index.html https://www.teach- ict.com/gcse_new/control/con trol/tasks_control.htm

Computer Science	Paper 2 – Programming (Arrays, Functions,	 care units in hospitals) Discuss the advantages and disadvantages of using computers in measurement rather than Name various sensors and describe three different applications which use these sensors. Design and create 1 D,2D array programs Explain and create programs on 	Difference Between one-dimensional and two-
	Procedures) To design programs based on 1D & 2D arrays for a given scenario To define and use functions, with or without parameters	Functions for a given scenario	dimensional array - GeeksforGeeks IGCSE Computer Science 2023- 25 - Topic 8: Programming (4) - Functions and Procedures (youtube.com)
Physical Education	Fitness testing-Identify a sport or physical activity you are involved in and link this to at least two of the fitness components and their tests. Practise the tests and record your results.	 The students are asked to create a presentation or keep a diary for three weeks to see if this improves your ability and impacts your overall performance. Explain how each test can improve a sporting or physical activity by implementing them into training sessions. 	www.teachpe.com www.britishschoolofboston.or g www.cie.org.uk www.physicaleducation.co.uk
Art	AO2 and AO3: To raise confidence as they develop	The ability to identify and solve problems in visual and tactile forms.	www.studentartguide.com

	technical skills in compositions.	Engagement and experimentation with a range of media, materials and techniques.	
French	 Chez le docteur Description physique et caractères L'interrogation La négation Les adjectifs possessifs Le conditionnel présent L'imparfait 	Writing: To write a dialogue between the doctor and patient describing the symptoms and which medicines convenient for this sickness. To write a blog about a celebrity, description physical and characters. Speaking: To record a dialogue between the doctor and patient describing the symptoms and which medicines convenient for this sickness. To record a speech about a celebrity, description physical and characters. Reading: different reading tasks on the topics. Listening: different listening tasks on the topics.	https://www.cambridgeintern ational.org/programmes-and- qualifications/cambridge- igcse-french-foreign-language- 0520/past-papers/ https://fasoeducation.bf/cours esu/postprimaire/cinquieme/ francais/portrait physique po rtrait moral/co/exercice Obs Man Class.html https://oraprdnt.uqtr.uquebec .ca/pls/public/docs/GSC2213/ F68515847 L interrogation a vec inversion Exercices et co rrig .pdf https://www.jerevise.fr/deter minant-adjectif-possessif- grammaire.html#:~:text=Un%2 Oadjectif%20possessif%20(app el%C3%A9%20aussi,C'est%20l e%20mien.
Arabic (Arabs)	TOPIC: (قصة قصيرة (العابرون فوق شظاياهم		https://www.youtube.com/wa tch?v=BmdoNtEIJQA
	رشعر (شيخ العرب (نحو (الاستثناء (بلاغة (الكناية	أن يحلل خط تصاعد الأحداث في القصة أن يحلل تقنيات الكتابة أن يصف الصراع بين الشخصيات	https://www.youtube.com/wa tch?v=E3FmyBSeQkQ

	Learning objectives:	اً أن ينثر الأبيات نثرً أدبيا	
	أن يحلل خط تصاعد الأحداث في القصة	أن يحلل مظاهر البلاغة في الأبيات أن يحدد صفات الشيخ زايد في الأبيات	https://www.youtube.com/wa tch?v=gZNAER56rJs
	أن يحلل تقنيات الكتابة أن يصف الصراع بين الشخصيات	أن يحدد حالات المستثنى بعد إلا	https://www.youtube.com/wa
	أن ينثر الأبيات نثرً أدبيا	أن يشرح بلاغة الكناية مع الشواهد	tch?v=B4qCo9iBb-s&t=85s
	أن يحلل مظاهر البلاغة في الأبيات		
	أن يحدد صفات الشيخ زايد في الأبيات		
	أن يحدد حالات المستثنى بعد إلا		
	أن يشرح بلاغة الكناية مع الشواهد		
Arabic Non-	Topic:		
Arabs	قضايا عالمية قصة نظرة	The students can create an essay about global issues.	
	Learning Objectives:	The students can create videos about the triangle of danger.	https://www.youtube.com/wa
	أن يوضح التلميذ أسباب بعض القضايا .العالمية	The student can create a booklet about the dangers global and how to solve.	https://www.youtube.com/wa
	أن يقترح التلاميذ الحلول لمشكلة الجرائم الإلكترونية	The students can make dialogue about donation campaigns.	https://www.youtube.com/wa
	أن يصف التلميذ أضرار الجرائم الإلكترونية	The students can make posters about natural disasters.	tch?v=ZA0fn1a7VUg&t=146s
	أن يحلل التلميذ العناصر الفنية للقصة.		

Islamic	العفة - أحكام الزواج :TOPIC		https://www.youtube.com/wa
Education		يستنتج سبل تحقيق العفة	tch?v=JatqbOygVak
(Arabs)	Learning objectives:	يحلل آثار العفة الاجتماعية	https://www.youtube.com/wa
	يحدد مفهوم العفة يبين أنواع العفة	يستنتج حقوق كل من الزوجة والزوج	tch?v=u-KXCvhQPp4
	يبين أنواع العفة	يتعرف العقود المستحدث في الزواج	https://www.youtube.com/wa tch?v=4yUopIDxYBY
	يوضح الحكمة من تشريع الزواج		https://www.youtube.com/wa
	يعدد شروط عقد الزواج		tch?v=69ud9YDBopU
Islamic Education (Non Arabs)	TOPIC:THE SUNNAH		
	Learning objectives:		
	 To elucidate the importance of implementation of Sunnah To analyze the benefits of implementing the Sunnah into our lives. To elucidate the concept of human development To evaluate the impact of human development on a society 	Write down an essay on how does UAE encourage its people to think creatively and innovatively to ensure the benefits for themselves and the whole society. Analyze the importance of obeying Prophet (P.B.U.H)? Why Allah made it obligatory for us and make it a part of our Faith? How does following the sunnah considered a source of earning Allah's pleasure and attaining closeness to Him?	https://www.youtube.com/watch?v=8RIQWIhZLhc&t=1s https://www.youtube.com/watch?v=mkDat9VMFpY

Moral	Financial Awareness	1. Make informed decisions about how to	https://www.investopedia.co
Education	To discuss the importance of financial awareness	responsibly budget, save, invest and borrow, which can be evidenced through students being asked to budget responsibly over the course of a week in response to a range of scenarios	
	To evaluate the different ways to save money and to explain the importance of budgeting.	2. Develop their entrepreneurial skills through being asked to invest in a 'business' – produce a business plan and take financial decisions based on how the company is coping with economic and global pressures	