



The Winchester School

Year 9 - Family Learning Newsletter – May- 2020

SUBJECT	FOCUS	ACTIVITIES	WEBSITES
ENGLISH	TOPIC : IGCSE- Language Analysis LEARNING OBJECTIVES- ✓ To introduce learners to IGCSE Language Analysis task.	✓ Along with your child watch any memorable or emotionally charged scene from any of the Marvel or DC Series as per your child's preference. ✓ Focus on the above-mentioned scene and in a paragraph jot down the dominant feeling that arises in the audience's heart as they watch the scene. Ask your child to examine how and why the stated feeling has been evoked in the viewer.	www.youtube.com
MATHS ACCELERATED	TOPIC- Straight Line Graphs LEARNING OBJECTIVES- ➤ Solve the equations graphically. ➤ To calculate the gradient of a line through the given points and write the equation of the line. ➤ To find the coordinates of the midpoints of a line segment and the distance between the two given pair of points	Encourage your child to Think and share their ideas. ✓ While planning the layout of her yard, Laura created a grid system representing her backyard. On the grid, Laura placed the centre of a herb garden at the coordinates (3,14) and wants to place a bird bath at the point (7,29). If Laura wants to position the centre of a flower garden so that the bird bath is halfway between the herb and flower gardens, at what coordinates should the centre of the flower garden be placed. ✓ How would you apply distance formula in land survey. ✓ Describe a Boxplot in statistics. ✓ Analyse how Box and Plot whiskers can be used to compare the scores by breaking the data into four quartiles ✓ Why do you think the data needs to be represented by a box and whiskers plot ✓ What do the whiskers on a box plot represent? ✓ Research on how stem and leaf diagram work in statistics/	https://www.youtube.com/watch?v=aveoj7o5FWQ https://www.sophia.org/concepts/midpoint-formula-in-the-real-world https://www.youtube.com/watch?v=otliqzKlnXc https://www.youtube.com/watch?v=IGov1qPnG3k https://www.youtube.com/watch?v=z41_PBqYuVg https://www.youtube.com/watch?v=Q2OF86ZUYMs https://www.youtube.com/watch?v=mhaGAaL6Abw



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	<p>TOPIC- Box and whiskers plot Stem and leaf diagram</p> <p>LEARNING OBJECTIVE –</p> <ul style="list-style-type: none"> ➤ To construct and interpret Stem & Leaf diagram Box and Whisker Plots. ➤ To calculate the mean, mode and median from the given data. ➤ To make comparisons between two data sets in Stem and Leaf and Box and Whisker Plots <p>TOPIC- Functions</p> <p>LEARNING OBJECTIVE –</p> <ul style="list-style-type: none"> ➤ To evaluate a function ➤ To find the inverse of a function ➤ To find the composite functions 	<ul style="list-style-type: none"> ✓ Describe and analyse how a stem and leaf diagram and is used to calculate the mean, median, interquartile range. ✓ Identify the relation between the graph of a function and its inverse. ✓ Research on what are functions, inverse functions and composite functions ✓ How would you evaluate a composite or inverse function. 	<p>https://www.youtube.com/watch?v=AhFNDONky0w https://www.mathsisfun.com/data/stem-leaf-plots.html</p> <p>https://www.softschools.com/math/topics/stem_and_leaf_plot/ https://www.youtube.com/watch?v=iAmaoAEyTLA https://www.youtube.com/watch?v=JK0zHW_ThjY</p> <p>https://www.youtube.com/watch?v=ZFPkQkURSxk https://www.youtube.com/watch?v=2zeYEx4eTdc https://www.youtube.com/watch?v=tZRfNSZ1Gww http://tutorial.math.lamar.edu/Classes/CalcI/Functions.aspx</p>
<p>MATHS EXTENDED</p>	<p>TOPIC – Geometrical constructions</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To understand and do Geometrical constructions and scale drawings. 	<ul style="list-style-type: none"> ✓ Encourage your child to: ✓ Research and prepare a detailed project report on any of the UAE structures linking their mathematical skills with geographical knowledge. 	<p>https://revisionmaths.com/gcse-maths-revision/shape-and-space/loci</p>



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<p>➤ To create a word problem based on real life scenario.</p> <p>TOPIC- Factorizing Quadratic Expressions</p> <p>LEARNING OBJECTIVES-</p> <p>➤ To factorize a quadratic expression ax^2+bx+c by using splitting the middle term method when $a=1$ and $a\neq 1$.</p> <p>TOPIC – Transformations and Symmetry</p> <p>LEARNING OBJECTIVES-</p> <p>➤ To understand and apply concept of enlargement and rotation and combination of transformations.</p> <p>➤ To find number of planes of symmetry and order in rotational symmetry.</p>	<p>✓ Create a poster using transformations- including fractional and negative scale factors.</p> <p>✓ Design car logos using lines and rotational symmetry.</p> <p>✓ Talk about how we use factorizing in our daily life: Exchanging money is another common function that relies on factoring. You probably already know that 4 quarters make a dollar. Looking at this in terms of factoring, 2 factors of 100 are 4 and 25. Similarly, you can exchange a twenty-dollar bill for 20 one-dollar bills (factors 1 and 20), 2 ten-dollar bills (factors 2 and 10) or 4 five-dollar bills (factors 4 and 5).</p> <p>✓ Along with your child discuss how factors are also useful when traveling. If you travel 720 miles on vacation, you need to know how many hours you must drive so you can plan your trip. At an average speed of 60 mph, it would take 12 hours to get to your destination ($60 \times 12 = 720$).</p> <p>✓ Understanding factoring allows you to easily navigate number relationships in the real world without relying on your calculator or phone to do the work for you.</p>	<p>http://www.mathsisfun.com/geometry/symmetry.html</p> <p>https://www.teacherspayteachers.com/Product/FACTORING-QUADRATIC-EXPRESSIONS-ACTIVITY-COOTIE-CATCHERS-2823708</p> <p>https://sciencing.com/do-math-activities-real-life-8489684.html</p> <p>https://www.mathsisfun.com/algebra/factoring-quadratics.html</p>
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<p>BIOLOGY</p>	<p>TOPIC –Immunity - Vaccination and Diseases LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ Describe what bacteria need to survive. ➤ Analyse bacterial growth data. ➤ Investigate the effect of antibiotics on bacteria. ➤ Explain how bacteria can become immune to antibiotics. ➤ Evaluate the impact of superbugs on our health. ➤ Describe how vaccines were discovered. ➤ Explain how vaccines prevent a viral infection. ➤ Evaluate the risks involved with vaccination. 	<p>Motive your child to describe the requirements needs for bacterial growth.</p> <ul style="list-style-type: none"> ✓ Encourage your child to research and develop a logistic model to describe bacterial growth. Create an animated video to explain how bacteria become resistant to certain antibiotics. ✓ Ask your child to create a presentation on how vaccines are made. ✓ Tell your child to conduct a survey in your community to find out some diseases caused by microbes. 	<p>https://revisionworld.com/gcse-revision/biology/human-body/immunisation-vaccination</p> <p>https://revisionworld.com/gcse-revision/biology/human-body/immunisation-vaccination</p> <p>https://amrls.cvm.msu.edu/pharmacology/antimicrobials/effect-on-bacteria</p> <p>http://www.immunizeforgood.com/vaccines/how-vaccines-are-made</p>
<p>PHYSICS</p>	<p>TOPIC- Acceleration LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ Plan and investigate acceleration using a trolley and ramp. 	<ul style="list-style-type: none"> ✓ Motivate your child to research on speed limit restrictions on roads and the needs to have them. ✓ Ask the child to discuss about acceleration and how it affects speed. ✓ Encourage your child to research on acceleration and investigate and explain certain pieces of equipment or sources of information are the right choice for an investigation. ✓ Motivate your child to apply various precise equipment and design appropriate table to record accurate results use calculation and present data to draw conclusion. 	<p>http://www.physicsclassroom.com/class/1DKin/Lesson-1/Speed-and-Velocity</p> <p>http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa/forces/forcemotionrev1.shtml</p>



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	<p>TOPIC - Analysing equilibrium</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To define opposing forces and equilibrium: weight held by stretched spring or supported on a compressed surface.➤ To use force arrows in diagrams, adding forces in one dimension, balanced and unbalanced force.	<ul style="list-style-type: none">✓ Motive your child to analyse situations to identify the various forces that are acting.✓ Explore static situations in which objects are held in equilibrium and the nature of the forces involved.	<p>https://www.youtube.com/watch?v=yJkyzzBryEM</p> <p>https://www.khanacademy.org/science/physics/one-dimensional-motion/acceleration-tutorial/a/what-are-acceleration-vs-time-graphs</p> <p>https://www.bbc.co.uk/bitesize/guides/zgv797h/revision/5</p>
CHEMISTRY	<p>TOPIC- Physical and chemical reactions:</p> <p>LEARNING OBJECTIVES</p> <ul style="list-style-type: none">➤ To identify physical and chemical changes, and understand the differences between them. <p>TOPIC- Balancing equations.</p> <p>LEARNING OBJECTIVE:</p> <ul style="list-style-type: none">➤ To construct word equations and simple balanced chemical equation	<p>Motive your child to</p> <ul style="list-style-type: none">✓ Read the context and summarise your understanding writing at least 5 points. <p>https://www.thoughtco.com/physical-and-chemical-changes-examples-608338</p> <ul style="list-style-type: none">✓ Discuss with your child to give some real-life examples of chemical reactions and try to balance those equation. Examples combustion, neutralisation, photosynthesis.✓ Talk to your child about Ceramics and Polymers, what are they and what are their composition. List their real life uses.✓ Discuss with them the different types of polymers, how are they made and their uses based on their composition.	<p>https://www.thoughtco.com/physical-and-chemical-changes-examples-608338</p> <p>https://www.wikihow.com/Balance-Chemical-Equations</p> <p>http://www.webqc.org/balance.php</p> <p>https://www.bbc.com/bitesize/guides/ztxnsbk/revision/1</p> <p>https://www.bbc.com/bitesize/guides/zyfgmnb/revision/1</p>



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		✓ Encourage your child to identify the difference between synthetic and natural polymers.	
ARABIC (Arabs)	<p>اترك بصمة إنجاز: أن يحدد الطالب أفكار النص. أن يستنتج دلالات وصف الحدث. أن يحلل أفكار النص موظفًا الأدلة الإقناعية. مملكة الفطريات: أن يحدد الطالب الفكر الرئيسة للنص. أن يستخرج الأدلة الفاعلة في النص، ويحدد مدى كفايتها. الممنوع من الصرف: أن يحدد الطالب الأسماء الممنوعة من الصرف. أن يعربها ويوظفها في مواقف حياتية. رواية من الأدب العربي: رحلات عجيبية في البلاد الغربية. أن يحلل الطالب العناصر الفنية للقصة.</p>	<p>يكتب الطالب موضوعًا عن شخصية مشهورة أو غير مشهورة يعرفها، واجهت مصاعب في سبيل إنجاز ابتكار وصلت به لتأييد الناس. يصمم الطالب نشرة عن الفطر وفوائده الغذائية. يستخرج الطالب الأسماء الممنوعة من الصرف من نصوص مختارة ويعربها.</p>	<p>https://www.youtube.com/watch?v=TrBpUjos3Cg</p> <p>https://www.youtube.com/watch?v=irZwXGjSmTM</p> <p>https://www.youtube.com/watch?v=D_Yzlr2Yd5o</p>
ISLAMIC STUDIES (Arabs)	<p>لا ضرر ولا ضرار-التسامح الفكري –السنن الاجتماعية في القرآن الكريم-الحكم الشرعي</p> <p>LEARNING OBJECTIVES-</p> <p>أن يستنتج الهدايات الواردة في الحديث</p>	<p>يكتب بحثًا عن خطورة الضرر بالآخرين</p> <p>يكتب موضوعًا عن التسامح الفكري</p> <p>يكتب بحثًا عن السنن الاجتماعية في القرآن الكريم</p>	<p>https://www.youtube.com/watch?v=hJH9jvd4JY</p> <p>https://vb.tafsir.net/tafsir/12334/#.XpHulsqzY2w</p> <p>https://www.youtube.com/watch?v=aVkoEzX0V3Y</p>



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	<p>يبين أثر تطبيق الحديث في المجتمع- يبين أثر السنن الاجتماعية الالهية على المجتمعات- يوضح بعض السنن الاجتماعية الإلهية- - يوضح مفهوم التسامح الفكري يبين آثار التسامح الفكري على الفرد والمجتمع- يوضح مفهوم الحكم الشرعي- يستنتج مزايا الحكم الشرعي- يبين أقسام الحكم الشرعي-</p>	<p>يكتب موضوعا عن الحكم الشرعي-</p>	<p>https://www.youtube.com/watch?v=VZJP7Ks8fAQ</p>
<p>ARABIC (Non- Arabs)</p>	<p>TOPIC – سوق العمل</p> <p>LEARNING OBJECTIVES-</p> <p>أن يصنف التلاميذ المهن المختلفة أن يقارن التلاميذ بين الأعمال المختلفة أن يصف التلاميذ المهن المستقبلية أن يحلل التلاميذ النص أدبياً</p>	<p>Encourage your child to</p> <ul style="list-style-type: none">✓ Create videos on their preferred jobs.✓ Design a projects such as videos, 3Ds, writings, magazines about different jobs.✓ To explain the most common jobs in their own countries.	<p>https://www.youtube.com/watch?v=0Oy7o8wycwA https://www.youtube.com/watch?v=WzsWibtymco https://www.youtube.com/watch?v=gxP76zyUS2g</p>



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ISLAMIC STUDIES
(Non- Arabs)

TOPIC – The Farewell pilgrimage and the Death of Prophet(s)

LEARNING OBJECTIVES-

- Be able to explain the most important episodes and events of the Farewell pilgrimage.
- Be able to explain the lessons learned from the Farewell pilgrimage.
- Be able to identify the attitudes of prophet's companions when hearing of the death of prophet(s)

TOPIC – The prophet's Method of educating a generation

LEARNING OBJECTIVES-

- Be able to explain the concept of education and its important status in Islam.
- Be able to explain the foundations and principles of the prophet's education of his Companions.
- Be able to discover some of the prophet's educational methods and techniques

✓ Encourage your child to research and then discuss on The Farewell pilgrimage and the Death of Prophet(s) and the prophet's Method of educating a generation.

<https://www.youtube.com/watch?v=flxxPssuzjw>

<https://www.youtube.com/watch?v=mzYi8FfE4u4>



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PSHCEE	<p>TOPIC – Self Esteem</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To discuss self-esteem. ➤ To discuss on ways we can improve our self-esteem ➤ To explore the concept of self-estee. ➤ To explain how self-esteem is built and preserve. 	<p>Encourage your child to-</p> <ul style="list-style-type: none"> ✓ Suggest some techniques that they can use in their revision ✓ Build a strong self-esteem. 	<p>https://www.youtube.com/watch?v=zq-fSpFhNYw</p>
MORAL EDUCATION	<p>TOPIC – The Government in the UAE</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To understand the type of government the UAE has. ➤ Discuss the role of government in increasing/decreasing level of social equality in a country such as the UAE. 	<p>Discuss with your child</p> <ul style="list-style-type: none"> ✓ How the UAE government has helped their citizens and residents to live a secure life in the country. ✓ The different kinds of governmental systems that exist in the world and the effect that each ✓ kind can have on a country's citizens. 	<p>https://u.ae/en#/</p>
HISTORY	<p>TOPIC – Cold War</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To analyse the causes and impact of the Cold War. 	<p>Encourage your child to</p> <ul style="list-style-type: none"> ✓ Discuss the differences between the conferences of Yalta and Potsdam. ✓ Research and to what extent do you agree that Cold War was more frightening than a conventional war? <p>Discuss with your child on the following:</p>	<p>https://www.youtube.com/watch?v=A9fQPzZ1-hg</p> <p>https://www.youtube.com/watch?v=bwWW3sbk4EU</p>



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		<ul style="list-style-type: none"> ✓ UAE has added a minister of happiness to its parliament. How is happiness a measure of development and assess how this will enhance development in UAE. ✓ Investigate along with your child the plans currently underway in UAE which are meant to end poverty and inequality in the world. 	Geography Textbook year 9
GEOGRAPHY	<p>TOPIC – Measuring and mapping development</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To examine what development is and how it is measured and mapped 	<ul style="list-style-type: none"> ✓ Help your child write an article for a news website explaining the possible courses of actions to reduce the development gap. ✓ Based on the Human development Indicator (HDI) help your child investigate plans currently underway in UAE which are meant to end poverty and inequality in the country 	
UAE SOCIAL STUDIES	<p>TOPIC – Revision : UAE VISION 2021 Living off Earth's Resources: Sustainable Living</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To analyse the major challenge that the government will have to deal with for the national agenda 2021 to become a reality. ➤ To analyse Cradle to cradle as a sustainable business strategy for the regenerative cycle of nature 	<ul style="list-style-type: none"> ✓ Discuss with your child the major challenge that the government will have to deal with for the national agenda 2021 to become a reality ✓ Help your child research if the seeds of VISION 2021 was sown by founding fathers of UAE. ✓ You are living in a country which has a minimal natural source of freshwater. Explain the water challenge faced by the UAE government and what measures have they adopted to overcome this challenge 	UAE SST WORKBOOK year 9



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<p>FRENCH</p>	<p>TOPIC – À l'aéroport Réservation d'un billet d'avion</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To learn new vocabulary about the details of the airport. As well as composing sentences about flight ticket reservation using the conditional 	<ul style="list-style-type: none"> ✓ https://www.francaisfacile.com/exercices/exercice-francais-2/exercice-francais-17134.php ✓ https://www.francaisfacile.com/exercices/exercice-francais-2/exercice-francais-8086.php 	<p>www.tv5monde.org www.language-gym.com www.youtube.com www.french-games.net www.francais.lingolia.com.fr www.francaisfacile.com</p>
<p>ICT</p>	<p>TOPIC –Security of data online</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To explore various encryption techniques used for securing data online ➤ To research about the need of encryption 	<ul style="list-style-type: none"> ✓ Encourage your child to find out various encryption techniques used for securing data online ✓ Motivate your child to research on the need of encryption 	<p>https://kids.kiddle.co/Encryption https://www.cerias.purdue.edu/education/k-12/teaching_resources/lessons_presentations/cryptology.html https://www.comparitech.com/blog/information-security/encryption-types-explained/</p>
<p>STEAM</p>	<p>TOPIC – Tinker cad(Design software)</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none"> ➤ To use Tinker cad software and design 3D Objects of your choice 	<ul style="list-style-type: none"> ✓ Encourage students to explore and design 3d objects in Tinker cad and make real life connections. Explore the advantages of 3d printing and make real life connections. 	<p>www.tinkercad.com</p>