



The Winchester School

Year 9 - Family Learning Newsletter – April - 2020

SUBJECT	FOCUS	ACTIVITIES	WEBSITES
ENGLISH	TOPIC : Language Analysis LEARNING OBJECTIVES- ➤ To enhance reading and inferential skills.	✓ Together with your child go through any narrative text or short story. ✓ Choose a descriptive paragraph to identify language features. ✓ With your child identify and state how these language features affect you as a reader.	https://americanliterature.com/100-great-short-stories http://www.gutenberg.org/
	TOPIC: Variation LEARNING OBJECTIVES- ➤ To calculate the constant of proportionality for direct or inverse proportion. ➤ To apply the knowledge of direct and inverse variations to solve more complicated problems on forming the formula. TOPIC – Trigonometry LEARNING OBJECTIVES- ➤ To apply Pythagoras theorem to a right angled triangle. ➤ To analyse and solve real life problem evaluating angles of elevation and depression.	Along with your child: ✓ Research and differentiate between variation and proportion. Think and share your ideas on: ✓ The area of an umbrella varies directly as the square of its radius. If the radius of the umbrella is doubled, how much will be the area of the umbrella? ✓ If 5 men take 8 days to type 10 books, apply the principle of variation to find out how many days 8 men will take to type 2 books? Motivate your child to: ✓ Read on various applications of trigonometric ratios to real life. ✓ Create a mind map of all the formulas on Trigonometry.	https://www.youtube.com/watch?v=s4dV4CRgbxc https://www.onlinemathlearning.com/inverse-variation.html https://www.youtube.com/watch?v=iS07Wq_0DiY https://www.math-only-math.com/problems-on-variation.html https://www.youtube.com/watch?v=WgBDpujbtlo



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MATHS ACCELERATED	<p>To critically evaluate the length or angle of any triangle by applying the Sine and Cosine Rule.</p> <p>➤ Solve 3D trigonometry questions and solve bearing related problems using trigonometry.</p> <p>➤ To calculate the area of any triangle using the formula, $A = \frac{1}{2}ab\sin C$.</p> <p>➤ To draw, sketch and describe the graphs of trigonometric functions given angles of any size</p> <p>TOPIC: Similarity</p> <p>LEARNING OBJECTIVES-</p> <p>➤ To prove two triangles are similar by applying the tests for similarity – SAS, ASA, SSS and RHS.</p> <p>➤ To apply the relationship of proportional sides to calculate the areas or volume of similar solids</p>	<p>✓ Research on the applications of Trigonometry and create a ppt or video.</p> <p>✓ Design a theodolite and use it to make measurements around the school.</p> <p>Think:</p> <p>✓ From the top of a cliff 200 meters high, the angles of depression of two fishing boats in the same line of sight on the water are 13 degrees and 15 degrees. How would you calculate the distance between the two boats?</p> <p>✓ Research on the difference between the terms Similar and Congruent shapes.</p> <p>✓ Research on the applications of Similarity and create a ppt or video.</p> <p>✓ List the significance of similarity in its application to real life.</p> <p>➤ Two similar cones are made, the larger cone has a diameter twice that of the smaller cone. The smaller cone has a surface area of 500 and a volume of 130. How would you calculate the surface area and volume of the larger cone.</p>	<p>https://www.bbc.co.uk/bitesize/guides/zqwhjty/revision/2</p> <p>https://brilliant.org/wiki/bearing-word-problems-easy/</p> <p>https://www.youtube.com/watch?v=Ex4uzPyQXNA</p> <p>https://www.mathsisfun.com/algebra/trig-sin-cos-tan-graphs.html</p> <p>https://www.youtube.com/watch?v=b3z0isY0-HY</p> <p>mathsisfun.com/geometry/similar.html</p> <p>https://www.bbc.co.uk/bitesize/guides/z9jpv9q/revision/12</p> <p>https://www.youtube.com/watch?v=LhEe0kB4QIs</p>
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			<p>http://similartriangles3.pbworks.com/w/page/23053498/Applying%20Similar%20Triangles%20to%20the%20Real%20World</p> <p>https://revisionworld.com/gcse-revision/mathematics/shape-space-and-measures/area-and-volume/areas-and-volumes-similar-figures</p>
MATHS EXTENDED	<p>TOPIC – Straight Line Graphs</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To use gradient, midpoint and distance formula.➤ To use concept of parallel and perpendicular lines. <p>TOPIC- Inequalities including graphs</p> <p>LEARNING OBJECTIVES-</p>	<p>Encourage your child to</p> <ul style="list-style-type: none">➤ Think about the Inequalities used by customers when they decide which item to purchase on sale. For example, two shirts are on sale at Old Navy; one is 20% off, the other is buy one-get one free. Which is the least expensive? <p>Planning a trip on a budget of \$200.</p> <ul style="list-style-type: none">➤ Students choose a place they would realistically like to visit. Students research on the location to complete a spread sheet including. <ul style="list-style-type: none">▪ travel expenses (plane, train, rental car, gas)	<p>www.mathworksheets4kids.com/inequalities.php</p> <p>http://www.softschools.com/math/algebra/inequalities/</p> <p>https://www.youtube.com/watch?v=P_c9D6mjGA</p> <p>http://www.bbc.co.uk/education/topics/z3pfb9q</p>



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	<p>➤ To solve linear inequalities and listing the values for the given inequalities. Then plotting the value for x on graph.</p> <p>TOPIC – Transformations</p> <p>LEARNING OBJECTIVES-</p> <p>➤ To understand and apply concept of enlargement and rotation and combination of transformations.</p>	<ul style="list-style-type: none">▪ lodging expenses▪ food expenses (breakfast, lunch, dinner, snack)▪ include at least 1 activity <p>➤ Complete the inequality : travel + lodging + food + activity(s) > or = \$200</p> <p>Research: Using Gradient or slope of straight line graph, find the equation of line. Find the length of line and its midpoint.</p> <p>Poster: Create a poster using transformations-including fractional and negative scale factors.</p>	https://www.khanacademy.org/math/algebra/x2f8bb11595b61c86:linear-equations-graphs/x2f8bb11595b61c86:slope/v/slope-of-a-line
BIOLOGY	<p>TOPIC – Immunity - Vaccination and Diseases</p> <p>LEARNING OBJECTIVES-</p> <p>➤ 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.</p>	<p>Motivate your child to:</p> <ul style="list-style-type: none">✓ Describe the requirements needed for bacterial growth.✓ Research and develop a logistic model to describe bacterial growth.✓ Create an animated video to explain how bacteria become resistant to certain antibiotics.✓ Create a presentation on how vaccines are made.	https://revisionworld.com/gcse-revision/biology/human-body/immunisation-vaccination https://amrls.cvm.msu.edu/pharmacology/antimicrobials/effect-on-bacteria http://www.immunizeforgood.com/vaccines/how-vaccines-are-made



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	<ul style="list-style-type: none">➤ Explain how vaccines prevent a viral infection.➤ Evaluate the risks involved with vaccination. <ul style="list-style-type: none">✓ Conduct a survey in your community to find out some diseases caused by microbes.	
PHYSICS	<p>TOPIC- Kinematics</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To define speed can be determined by measuring distance travelled and time taken.➤ Plot and interpret a speed/time or a distance/time graph.➤ Recognize from the shape of a speed/time graph when a body is<ul style="list-style-type: none">- at rest- moving with constant speed➤ Calculate acceleration from speed/time graph.	<p>Encourage your child to</p> <ul style="list-style-type: none">✓ Research on speed limit restrictions on roads and the needs to have them.✓ Draw speed time graphs and use them to calculate distance and speed.✓ Compare distance time graphs with speed time graphs.✓ Discuss about acceleration and how it affects speed. <p>http://www.physicsclassroom.com/class/1DKin/Lesson-1/Speed-and-Velocity</p> <p>http://www.bbc.co.uk/schools/gcsebit.esize/science/add_aqa/forces/forces_motionrev1.shtml</p> <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>



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CHEMISTRY	<p>TOPIC- Pattern of reactivity of metals</p> <p>LEARNING OBJECTIVES</p> <ul style="list-style-type: none">➤ To investigate and arrange the reactivity of different metals and carbon in the reactivity series. <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 Heat Energetics of a reaction</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To outline the meaning of exothermic and endothermic reactions.➤ To interpret energy level diagrams showing exothermic and endothermic reactions.	<p>Encourage 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 about what do they understand exothermic and endothermic reactions. Research on what are the different ways to investigate this type of reaction.✓ Find out why sodium is stored under oil.✓ Discuss why rusting of iron is a slow process. Compare its reactivity with that of sodium or group-1 elements.✓ Encourage your child to identify the reactivity of different metals and arrange it from most reactive to least reactive metals. Based on the reactivity of metals discuss with them what are the different ways extracting these metals.	<p>https://www.thoughtco.com/physical-and-chemical-changes-examples-608338</p> <p>https://www.youtube.com/watch?v=eJXL0lrbtqE</p> <p>https://www.youtube.com/watch?v=4HS6D0hTzdg</p> <p>https://www.youtube.com/watch?v=R2eNZRzg7Q</p>
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	<ul style="list-style-type: none">أن يقارن بين النص ونص معلوماتي خارجي - مقارنة أدبية		<p>9%84%D9%85%D8%AF%D8%B1%D8%B3%D9%8A%D8%A9</p> <p>https://www.youtube.com/channel/UCct7dnkpp-H-8tUWoFIUS0A</p>
ISLAMIC STUDIES (Arabs)	<p>TOPIC – الأمن والأمان - لا للانتحار</p> <p>Learning Objectives-</p> <ul style="list-style-type: none">يتلو الآيات تلاوة صحيحة محددةيفسر معاني المفرداتيوضح أصناف الناس يوم القيمةيوضح مفهوم الأمن في الإسلاميبين أهمية الأمن في حياة الفرد والمجتمعيحدد أهم مجالات الأمناستنتج سبل تحقيق الأمن	<p>يكلف الطالب ببعض التكليفات البيتية ويحرص على الصلاة</p> <p>في أوقاتها وحفظ سورة الواقعة</p> <p>اكتب موضوعا عن خطورة الانتحار</p> <p>اكتب تقريرا عن عن معدلات الانتحار حول العالم وما سببها</p> <p>اكتب موضوعا عن العمل الصالح وأثاره على الفرد والمجتمع</p>	<p>https://www.youtube.com/watch</p> <p>https://www.youtube.com/watch</p>



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ARABIC (Non- Arabs)	<p>TOPIC – سوق العمل (العمل والوظائف)</p> <p>LEARNING OBJECTIVES-</p> <p>أن يقارن الطلاب بين الوظائف المختلفة -1.</p> <p>أن يحدد الطلاب أهمية العمل -2.</p> <p>أن يحل الطلاب النص أدبياً وبلاغياً -3.</p> <p>أن يوضح الطلاب وظائفهم المستقبلية -4.</p>	<p>Encourage your child to</p> <ul style="list-style-type: none">✓ Design posters on different jobs.✓ Create videos on the future jobs.✓ Create a role play an interview when they apply for a job.✓ Create their own CVs.✓ Create the expected questions for an interview.	<p>https://www.youtube.com/watch?v=Z4oNO3HGv4</p> <p>https://www.youtube.com/watch?v=0Oy7o8wycwA</p> <p>https://www.youtube.com/watch?v=sub7S6xCCSKw</p> <p>I read Arabic</p>
ISLAMIC STUDIES (Non- Arabs)	<p>TOPIC – The Prophet's Method of educating a Generation</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To explain the concept of education and its important status in Islam.➤ To explain the foundation and principles of the prophet's education of his Companions.	<p>Along with your child</p> <ul style="list-style-type: none">✓ Create a video about how to teach others.✓ Design wall magazine about benefits of knowledge.	<p>https://www.youtube.com/watch?v=Z4oNO3HGv4</p>
PSHCEE	<p>TOPIC – Active Citizenship</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To discuss the importance of being active in the community.	<p>Discuss with your child what active citizenship and volunteering are and how you have participated in them in your life.</p>	<p>https://www.youtube.com/watch?v=kiZNO_Lca8k&t=4s</p>



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	<p>➤ To explore the ways where students can volunteer in the community</p>		
MORAL EDUCATION	<p>TOPIC – Morality in the Context of States</p> <p>LEARNING OBJECTIVES-</p> <p>➤ To explore the concept of government and state, and examine the characteristics and qualities of good government.</p>	<p>With your child</p> <ul style="list-style-type: none">✓ Create a poster stating a set of laws and consequences that will guide your family.✓ Discuss the characteristics of good governance with your children.	https://u.ae/en/about-the-uae
HISTORY	<p>TOPIC – WORLD WAR II</p> <p>LEARNING OBJECTIVES- To analyse the short and long term causes of world war II</p>	<p>Research and help your child to justify :</p> <ul style="list-style-type: none">✓ The Great depression was the major causes of WWII' How far do you agree with this statement?✓ The Nazi-Soviet pact was more responsible than appeasement for the cause of WWII' How far do you agree to this statement? Explain your answer	https://www.bbc.com/bitesize/guides/z9s9q6f/revision/2
GEOGRAPHY	<p>TOPIC –Our restless planet (Link to TIMSS)</p> <p>LEARNING OBJECTIVES-</p> <p>To analyse the features of tsunamis and examine their damages in comparison to earthquakes</p>	<p>Research and help your child complete a write up for the school magazine on the topic:</p> <ul style="list-style-type: none">✓ Wave that shook the world: Asian Tsunami✓ Along with your child read about the PACIFIC TSUNAMI WARNING CENTRE and how it functions in warning the people about the calamity caused by Tsunami's.	https://study.com/academy/lesson/the-causes-effects-of-a-tsunami.html https://www.youtube.com/watch?v=nqST-HmU_s https://video.nationalgeographic.com/video/exploreorg/00000144-0a34-d3cb-a96c-7b3d8e5b0000



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UAE SOCIAL STUDIES	<p>TOPIC – Leading Sheikhs of the Emirate of Ajman</p> <p>LEARNING OBJECTIVES- TO examine the significant role of the Sheikhs of Ajman in several achievements of the emirate, leadin it to become a prosperous economic region attracting investments.</p>	<p>Help your child investigate the Biographies of the rulers of Ajman- Sheikh Rashid bin Humayd Al Nuaimi, Sheikh Humaid bin Rashid Al Nuaimi III and Crown Prince Sheikh Ammar bin Humaid Al Nuaimi.</p> <p>Use the recording frame below to create a summary of either Sheikh Rashid bin Humayd Al Nuaimi or Sheikh Humaid bin Rashid Al Nuaimi. Complete the task on page 57 of the UAE SST Workbook year 9</p>	<p>https://www.ajman.ae/en/ajman-ruler https://uaecabinet.ae/en/details/federal-supreme-council/his-highness-sheikh-humaid-bin-rashid-al-nuaimi-1</p>
FRENCH	<p>TOPIC – On voyage en avion</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To name places and services at the airport➤ To ask and answer questions seeking information at the airport➤ To solve problems connected to travelling by plane	<p>Read and listen and answer the given activity: http://www.francaisfacile.com/exercices/exercice-francais-2/exercice-francais-8086.php</p> <p>Grammar practice: http://www.francaisfacile.com/exercices/exercice-francais-2/exercice-francais-17134.php</p>	<p>www.tv5monde.org www.youtube.com www.french-games.net www.language-gym.com www.francais.lingolia.com.fr www.francaisfacile.com www.linquascope.com www.lepointduflé.net</p>



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ICT	<p>TOPIC –Computer networks</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To explore different types of computer networks used in daily life.➤ To research about the uses of computer networks.	<ul style="list-style-type: none">✓ Motivate your child to explore different types of computer networks✓ Encourage your child to research about the uses of computer networks	<p>https://users.dimiluniud.it/~massimo.franceschet/networks/nexus/examples.html</p> <p>https://www.studytonight.com/computer-networks/uses-of-computer-networks</p>
STEAM	<p>TOPIC – Thinker cad</p> <p>LEARNING OBJECTIVES-</p> <ul style="list-style-type: none">➤ To explore THINKER CAD SOFTWARE and create model designs	To design Simple models using Thinker cad software and discuss real life applications of 3D Printing	Thinker cad software