

AL AIN JUNIORS SCHOOL- BRITISH SYSTEM

LEARNING TRAILS

AY 2023-24: TERM 1\_WEEK 5 (25<sup>th</sup> TO 29<sup>th</sup> SEPTEMBER 2023)

GRADE 11

MATHEMATICS	IT
<p><b>Topics:</b>            Coordinate Geometry (CIRCLES)            Introduction to Statistical Thinking            Measures of location and Spread</p> <p><b>Learning Objectives:</b>            At the end of the lessons, students should be able to:</p> <ul style="list-style-type: none"> <li>• understand that the equation <math>(x-a)^2+(y-b)^2 = r^2</math> represents the circle with centre (a, b) and radius r</li> <li>• use algebraic methods to solve problems involving lines and circles</li> <li>• understand the relationship between a graph and its associated algebraic equation and use the relationship between points of intersection of graphs and solutions of equations to determine the set of values of k for which the line <math>y = x + k</math> intersects, touches or does not meet a quadratic curve.</li> <li>• select a suitable way of presenting raw statistical data, and discuss advantages and/or disadvantages that particular representations may have</li> <li>• draw and interpret stem-and-leaf diagrams, box-and-whisker plots, histograms and cumulative frequency graphs</li> <li>• understand and use different measures of central tendency (mean, median, mode) and Dispersion (range, interquartile range, standard deviation)</li> <li>• use a cumulative frequency graph to estimate medians, quartiles, percentiles, the proportion of a distribution above (or below) a given value, or between two values</li> </ul>	<p><b>Topics:</b>            Data processing and information:            Checking the accuracy of data.            Database</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>• Describe Validation including: presence check, range check, type check, length check, format check, check digit, lookup check, consistency check, limit check.</li> <li>• Verification including: visual checking and double data entry, parity check, checksum, hash total, control total.</li> <li>• Differentiate between validation and verification.</li> <li>• Define normalization.</li> <li>• Describe the advantages and disadvantages of normalization.</li> <li>• Convert a table into third normal form.</li> </ul> <p><b>Resources needed:</b>            Text book, Computer, Task sheet</p> <p><a href="http://www.teachict.com/as_a2_ict_new/ocr/AS_G061/311_data_info_knowledge/static_dynamic_data/miniweb/index.htm">http://www.teachict.com/as_a2_ict_new/ocr/AS_G061/311_data_info_knowledge/static_dynamic_data/miniweb/index.htm</a></p>



<p><b>Resources needed:</b> P1 Textbook, S1 Textbook, PPTs</p> <p><b>Homework/Assignments:</b> <a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a> <a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a> <a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p>	<p><b>Homework/Assignments:</b> Solve past paper questions</p>
<p><b>ADVANCED ARABIC</b></p>	<p><b>GENERAL ARABIC</b></p>
<p><b>Topics:</b> بلاغة - التشبيه التمثيلي</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"><li>• أن يتعرف التشبيه التمثيلي</li><li>• أن يحلل التشبيه التمثيلي موضحا مواطن الجمال وينتج جملا تتضمنه</li><li>• أن يتعرف المفاهيم البلاغية ويتذوقها ويوظفها في إنتاجه اللغوي</li></ul> <p><b>Resources needed:</b></p> <ul style="list-style-type: none"><li>• الكتاب المدرسي</li><li>• العرض التقديمي</li><li>• منصة ألف</li></ul> <p><b>Homework/Assignments:</b></p> <ul style="list-style-type: none"><li>• حل أسئلة الكتاب المدرسي</li><li>• حل أوراق العمل</li><li>• حل أسئلة منصة ألف</li></ul>	<p><b>Topics:</b> هواية والدي</p> <p><b>Learning Objectives:</b> يستمع ويفهم النص جيدا يستخرج المفردات الجديدة ويكتب جملة عن كل كلمة يتحدث عن هوايته المفضلة</p> <p><b>Resources needed:</b> العرض التقديمي الكتاب المدرسي أوراق العمل</p> <p><b>Homework/Assignments:</b> اكتب فقرة عن هوايتك المفضلة</p>
<p><b>PHYSICS</b></p>	<p><b>BIOLOGY</b></p>
<p><b>Topics:</b> Kinematics</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"><li>• Solve problems using equations that represent uniformly accelerated motion in a straight line, including the motion of bodies falling in a uniform gravitational field without air resistance</li><li>• Describe an experiment to determine the</li></ul>	<p><b>Topics:</b> Biological Molecules – Lipids and Proteins</p> <p><b>Learning Objectives:</b> Explain the meaning of the terms primary structure, secondary structure, tertiary structure and quaternary structure of proteins Describe the structure of a molecule of haemoglobin</p>

<p>acceleration of free fall using a falling object</p> <ul style="list-style-type: none"> <li>Apply the indepth knowledge of horizontal component and vertical component of a projectile to solve qns thereby to calculate range, maximum height, time of flight etc</li> </ul> <p><b>Resources needed:</b> Teacher notes and learner worksheets from the IoP on projectile motion: <a href="https://spark.iop.org/episode-207-projectile-motion">https://spark.iop.org/episode-207-projectile-motion</a> <b>Monkey and Hunter demonstration:</b> <a href="http://www.stem.org.uk/resources/elibrary/resource/27021/monkey-and-hunter">www.stem.org.uk/resources/elibrary/resource/27021/monkey-and-hunter</a> <b>Pearls of Water demonstration:</b> <a href="http://www.stem.org.uk/resources/elibrary/resource/34375/pearls-water">www.stem.org.uk/resources/elibrary/resource/34375/pearls-water</a> <a href="https://spark.iop.org">https://spark.iop.org</a> Cambridge AS level Course Book</p> <p><b>Homework/Assignments:</b> PP question for practice booklet-j2016-N2020</p>	<p>as an example of a globular protein, including the formation of its quaternary structure from two alpha (<math>\alpha</math>) chains (<math>\alpha</math>-globin), two beta (<math>\beta</math>) chains (<math>\beta</math>-globin) and a haem group</p> <p><b>Resources needed:</b> <a href="http://www.biotopics.co.uk/as/lipidcondensation.html">www.biotopics.co.uk/as/lipidcondensation.html</a> <a href="http://www.biologyreference.com/">www.biologyreference.com/</a></p> <p><b>Homework/Assignments:</b> Solve past paper questions from save my exams- Topic wise.</p>
ISLAMIC ARABIC	ISLAMIC EDUCATION
<p><b>Topics:</b> الاستعفاف</p> <p><b>Learning Objectives:</b> أن يبين المقصود بالاستعفاف . أن يبين أثر الاستعفاف على الفرد والمجتمع . أن يوضح مجالات الاستعفاف . أحرص على تمثل القيم والأخلاق الإسلامية</p> <p><b>Resources needed:</b> الكتاب المدرسي بوربوينت أنشطة تعليمية منصة ألف</p> <p><b>Homework/Assignments:</b></p> <ul style="list-style-type: none"> <li>حل أنشطة الطالب</li> <li>حل أسئلة منصة ألف</li> </ul>	<p><b>Topics:</b> Aql and Naql (Reason &amp; Revelation)</p> <p><b>Learning Objectives:</b> a. Understand the concept of Aql (Reason) and Naql (Revelation) in Islamic theology. b. Explore the relationship between reason and revelation in Islamic thought. c. Analyze the role of reason and revelation in acquiring knowledge and understanding religious teachings.</p> <p><b>Resources needed:</b> a. Quran.com and Hadith collection websites for easy access to relevant verses and narrations. b. Islamic educational apps or interactive websites that provide engaging content on Islamic theology.</p> <p><b>Homework/Assignments:</b> Solve students' activities in textbook</p>

CHEMISTRY	ACCOUNTING
<p><b>Topics:</b> Atomic Structure</p> <p><b>Learning Objectives:</b> Describe, Interpret and Predict what effect bonding and intermolecular bonding has on the properties of substance. Practicals - To find percentage purity of iron.</p> <p><b>Resources needed:</b> Textbooks, Save my exams topical questions, Laboratory equipments.</p> <p><b>Homework/Assignments:</b> Textual end of the chapter questions and topical MCQs from save my exams.</p>	<p><b>Topics:</b> Accounts of Limited Companies</p> <p><b>Learning Objectives:</b> To understand the terminologies related to limited companies To formulate Income Statement of Limited Companies</p> <p><b>Resources needed:</b> AS and A Level Accounting by Harold Randall and David Hopkins PPT, Task Sheets and MCQs</p> <p><b>Homework/Assignments:</b> MCQs Read text book and prepare concept map on the topic and Topical questions</p>

## BUSINESS

<p><b>Topics:</b> <b>1.2.2 Business ownership</b></p> <p><b>Learning Objectives:</b> To Understand the main features of different types of business ownership; sole traders, partnerships, private limited companies, public limited companies, franchises, co-operatives, joint ventures and social enterprises. To Understand the appropriateness of different types of business ownership</p> <p><b>Resources needed:</b> ISBN:9781108921220 <a href="http://www.slideshare.net/mraali/difference-between-public-and-private-sector">www.slideshare.net/mraali/difference-between-public-and-private-sector</a></p> <p><b>Homework/Assignments:</b> Practice:</p> <ul style="list-style-type: none"> <li>• 9609/23 Nov 2020 Braid Runner – sole traders</li> <li>• 9609/22 Mar 2017 Gourmet Ices – partnerships</li> <li>• 9609/22 Nov 2020 Energy Solutions – private limited companies</li> <li>• 9609/21 Nov 2020 Electric Cars – public limited companies</li> <li>• 9609/22 Jun 2018 Umpire Umbrellas – franchises</li> <li>• 9609/23 Jun 2019 First Nature – co-operatives</li> <li>• 9609/22 Jun 2019 Too Tasty – joint ventures</li> <li>• 9609/23 Nov 2019 U-Learn – social enterprises</li> </ul>
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