

AL AIN JUNIORS SCHOOL- BRITISH SYSTEM

LEARNING TRAILS

AY 2023-24: Term 1\_Week 13 (20<sup>th</sup> to 24<sup>th</sup> November 2023)

GRADE 11

MATHEMATICS	IT
<p><b>Topics:</b> Series</p> <ol style="list-style-type: none"> <li>1. BINOMIAL EXPANSION</li> <li>2. ARITHMETIC PROGRESSION</li> </ol> <p><b>Learning Objectives;</b></p> <ul style="list-style-type: none"> <li>• use the expansion of <math>(a + b)^n</math>, where n is a positive integer</li> <li>• recognise arithmetic progressions</li> <li>• use the formulae for the nth term and for the sum of the first n terms to solve problems involving arithmetic progressions</li> </ul> <p><b>Resources needed:</b> Textbook, PPT, Past papers</p> <p><b>Homework/Assignments:</b></p> <p><a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p> <p><a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p> <p><a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p> <p><a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p> <p><a href="#">CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources   Search Results (cambridgepapers.net)</a></p>	<p><b>Topics:</b> eSecurity:</p> <p><b>Learning Objectives;</b></p> <ul style="list-style-type: none"> <li>• Describe the concept of eSecurity and its significance in protecting personal data.</li> <li>• Identify common types of malware and their impact on cybersecurity.</li> <li>• Explain best practices for safeguarding personal data and preventing malware infections.</li> <li>• Discuss the potential consequences of malware infections, including data loss, financial loss, and privacy breaches.</li> <li>• Describe preventive measures for protecting personal data, such as using strong passwords, enabling two-factor authentication, and encrypting sensitive information.</li> </ul> <p><b>Resources needed:</b> <a href="https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-personal-data_en">https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-personal-data_en</a> <a href="http://www.consumer.ftc.gov/articles/0272-how-keep-your-personal-information-secure">www.consumer.ftc.gov/articles/0272-how-keep-your-personal-information-secure</a> <a href="http://www.webopedia.com/DidYouKnow/Internet/virus.asp">www.webopedia.com/DidYouKnow/Internet/virus.asp</a> <a href="http://www.cisco.com/c/en/us/products/security/advanced-malware-protection/what-is-malware.html">www.cisco.com/c/en/us/products/security/advanced-malware-protection/what-is-malware.html</a></p> <p><b>Homework/Assignments:</b> Solve past paper questions</p>

ADVANCED ARABIC	GENERAL ARABIC
<p><b>Topics:</b></p> <p>مراجعة الامتحان النهائي</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>• أن يحدد الفكرة الرئيسية والفكر الفرعية لقصيدة مالك بن الربيع</li> <li>• (أن يحلل القصة إلى عناصرها الفنية ) قصة نظارة طبية</li> <li>• أن يتعرف أوزان اسم الآلة</li> <li>• أن يميز بين الكناية والاستعارة والتشبيه</li> </ul> <p><b>Resources needed:</b></p> <ul style="list-style-type: none"> <li>• الكتاب المدرسي</li> <li>• أسئلة منصة ألف</li> <li>• اختبار الكتروني</li> </ul> <p><b>Homework/Assignments:</b></p> <p>حل أسئلة منصة ألف</p> <p>حل أوراق العمل</p>	<p><b>Topics:</b></p> <p>مراجعة عل دروس الأختبار</p> <p><b>Learning Objectives:</b></p> <p>أن يستطيع معرفة أشكال الهجن</p> <p>أن يتدرب على أنواع الجمل والضمائر و الأفعال</p> <p><b>Resources needed:</b></p> <p>الكتاب المدرسي</p> <p>العرض التقديمي</p> <p>أختبار إلكتروني</p> <p><b>Homework/Assignments:</b></p> <p>حل اسئلة الكتاب</p> <p>أوراق العمل</p>
PHYSICS	BIOLOGY
<p><b>Topics:</b></p> <p>Work power and Energy</p> <p><b>Learning Objectives:</b></p> <p>2 Gravitational Potential Energy and Kinetic Energy</p> <p>1 derive, using <math>W = Fs</math>, the formula <math>\Delta EP = mg\Delta h</math> for gravitational potential energy changes in a uniform gravitational field</p> <p>2 recall and use the formula <math>\Delta EP = mg\Delta h</math> for gravitational potential energy changes in a uniform gravitational field</p> <p>3 derive, using the equations of motion, the formula for kinetic energy <math>EK = 1/2mv^2</math></p> <p>4 recall and use <math>EK = 1/2mv^2</math></p> <p><b>Resources needed:</b></p> <p><a href="https://phet.colorado.edu">https://phet.colorado.edu</a></p> <p><a href="http://www.physicsclassroom.com">www.physicsclassroom.com</a></p> <p><a href="http://www.physicslab.co.uk">www.physicslab.co.uk</a></p> <p><a href="https://sciencing.com">https://sciencing.com</a></p>	<p><b>Topics:</b></p> <p>Unit: 5 The Mitotic cell cycle</p> <p><b>Learning Objectives:</b></p> <p>outline the mitotic cell cycle, including:</p> <ul style="list-style-type: none"> <li>• interphase (growth in G1 and G2 phases and DNA replication in S phase)</li> <li>• mitosis</li> <li>• Cytokinesis</li> </ul> <p><b>Resources needed:</b></p> <p><a href="http://www.hhmi.org/biointeractive/dna-packaging">www.hhmi.org/biointeractive/dna-packaging</a></p> <p><a href="http://www.dnalc.org/resources/3d/07-how-dna-is-packaged-basic.html">www.dnalc.org/resources/3d/07-how-dna-is-packaged-basic.html</a></p> <p><a href="http://www.cellsalive.com/cell_cycle_js.htm">www.cellsalive.com/cell_cycle_js.htm</a></p> <p>and</p> <p><a href="http://www.biology.arizona.edu/cell_bio/tutorials/cell_cycle/mitosis_movie.html">www.biology.arizona.edu/cell_bio/tutorials/cell_cycle/mitosis_movie.html</a></p> <p><b>Homework/Assignments:</b></p>

<https://spark.iop.org>

[www.stem.org.uk](http://www.stem.org.uk)

<https://studynova.com/lecture/physics/>

Topic wise past paper questions

[www.physicsmathtutor.com](http://www.physicsmathtutor.com)

[www.s-cool.co.uk/a-level/physic](http://www.s-cool.co.uk/a-level/physic)

**Homework/Assignments:**

Practice Booklet 2016-2020 MCQ and SQ

Research the control of the cell cycle, including checkpoint protein kinases and the process of phosphorylation.

**ISLAMIC ARABIC**

**Topics:**

مصادر التشريع الإسلامي

**Learning Objectives;**

- \* أن يبين المقصود بمصادر التشريع الإسلامي \*
- \* أن يذكر خصائص القرآن الكريم \*
- \* أن يوضح حجية السنة النبوية الشريفة \*
- \* أن يستنتج أهمية الاجتهاد في استنباط الأحكام الشرعية \*
- \* أن يحدد بعض مصادر التشريع الاجتهادية \*

**Resources needed:**

الكتاب المدرسي

بوربوينت

أنشطة تعليمية

منصة ألف

**Homework/Assignments:**

- حل أنشطة الطالب
- حل أسئلة منصة ألف

**ISLAMIC EDUCATION**

**Topics:**

Manners of Dialogue

**Learning Objectives;**

- Understand the importance of respectful and effective dialogue in Islam.
- Identify and practice key manners of dialogue in Islamic teachings.

**Resources needed:**

- Books: Islamic etiquette books, such as "Islamic Manners" by Abdul Fattah Abu Ghudwah.
- Online resources: Islamic educational websites, such as Islamic Finder and Islami city, for additional reading materials and interactive content.
- Mobile apps: Islamic etiquette apps, such as "Islamic Manners & Etiquettes" and "Islamic Manners for Children."

**Homework/Assignments:**

Solve students' activities in the textbook.

Revise PPT

**CHEMISTRY**

**Topics:**

Redox Reactions

**Learning Objectives;**

- Calculate oxidation numbers of elements in compounds.
- Use changes in oxidation numbers to help balance

**ACCOUNTING**

**Topics:**

Incomplete Records

**Learning Objectives;**

- To formulate financial statements from incomplete records

chemical Equations

**Resources needed:**

Cambridge AS and A level Chemistry Course book.

**Homework/Assignments:**

Topical Questions from Papa Cambridge.

Textual End of the Chapter Questions.

**Resources needed:**

Cambridge AS and A level Accounting

Formats

Topical MCQ sheet

**Homework/Assignments:**

Topical questions

## BUSINESS

**Topics:**

1.5 Stakeholders in a business

1.5.2 The relative importance and influence of stakeholders on business activities

**Learning Objectives:**

To analyze how and why a business needs to be accountable to its stakeholders

To analyze how conflict might arise from stakeholders having different aims and objectives

To analyze how changing business objectives might affect its stakeholders

To evaluate the impact of business decisions on stakeholders and their reactions

**Resources needed:**

SBN:9781108921220

[www.tutor2u.net/business/gcse/organisation\\_stakeholders\\_ethics.html](http://www.tutor2u.net/business/gcse/organisation_stakeholders_ethics.html)

[www.tutor2u.net/business/gcse/organisation\\_stakeholders\\_ethics.htm](http://www.tutor2u.net/business/gcse/organisation_stakeholders_ethics.htm)

**Homework/Assignments:**

Solve the past papers of 2020-2022- May June / 12