

AL AIN JUNIORS SCHOOL- BRITISH SYSTEM

LEARNING TRAILS

AY 2023-24: Term 1_Week 11 (6th to 10th November 2023)

GRADE 11

MATHEMATICS	IT
<p>Topics: PERMUTATION AND COMBINATION</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• understand the terms permutation and combination, and solve simple problems involving selections• solve problems about arrangements of objects in a line, including those involving repetition (e.g. the number of ways of arranging the letters of the word 'NEEDLESS')• solve problems about arrangements of objects in a line, including those involving restriction (e.g. the number of ways several people can stand in a line if two particular people must, or must not, stand next to each other). <p>Resources needed: PPT, TEXTBOOK, PAST PAPERS</p> <p>Homework/Assignments: CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources Search Results (cambridgepapers.net) CAIE Mathematics: Topic-Wise Study Guides, Questions, and Resources Search Results (cambridgepapers.net)</p>	<p>Topics: Monitoring and control</p> <p>Calibration</p> <p>Learning Objectives: Identify common types of sensors used in monitoring technologies, such as temperature sensors, pressure sensors, and motion sensors. Explain the applications of sensors in specific contexts, such as air quality monitoring, patient monitoring, and structural health monitoring. Discuss the key features and characteristics of sensors that make them suitable for different monitoring applications. Define calibration and explain its role in ensuring the accuracy and reliability of monitoring systems. Describe the calibration process for different types of sensors, including the use of reference standards and calibration equipment.</p> <p>Resources needed: https://learn.adafruit.com/calibrating-sensors?view=all</p> <p>Homework/Assignments: Solve past paper questions</p>

ADVANCED ARABIC	GENERAL ARABIC
<p>Topics: نحو - النسب</p> <p>Learning Objectives;</p> <ul style="list-style-type: none"> • أن يتعرف المتعلم الاسم المنسوب • أن يصوغ الاسم المنسوب صياغة صحيحة • أن يوظفه في مواقف حياتية <p>Resources needed:</p> <ul style="list-style-type: none"> • الكتاب المدرسي • العرض التقديمي • منصة ألف • اختبار الكتروني <p>Homework/Assignments: حل أسئلة الكتاب المدرسي - حل أسئلة منصة ألف</p>	<p>Topics: سباق الهجن + المثنى</p> <p>Learning Objectives; يتعرف تاريخ الهجن يتدرب على تحويل المفرد إلى مثنى يكتب جمل تحتوي على مثنى</p> <p>Resources needed: الكتاب ورقة العمل السيبورة</p> <p>Homework/Assignments: حول هذه الكلمات إلى مثنى (الباب - الولد - القلم - الكتاب)</p>
PHYSICS	BIOLOGY
<p>Topics: Forces, density and pressure</p> <p>Learning Objectives: Explain the concept of hydrostatic pressure and its role in creating upthrust on an object in a fluid. Describe how the pressure exerted by a fluid varies with depth and its effect on the upthrust experienced by an object. Give examples and real-life scenarios where the upthrust acting on an object is a result of the difference in hydrostatic pressure. Calculate the upthrust acting on an object in a fluid using the equation $F = \rho gV$ (Archimedes' principle). Define and understand the variables in the equation $F = \rho gV$,</p> <p>Resources needed: www.s-cool.co.uk/a-level/physics Torque simulation: https://phet.colorado.edu/en/simulation/legacy/torque The ramp simulation:</p>	<p>Topics: Unit :4 Cell Membrane –Movement in and out of cells</p> <p>Learning Objectives; describe and explain the processes of simple diffusion, facilitated diffusion, osmosis, active transport, endocytosis and exocytosis. explain the movement of water between cells and solutions in terms of water potential and explain the different effects of the movement of water on plant cells and animal cells</p> <p>Resources needed: www.wisc-online.com/learn/natural-science/life-science/ap1101/construction-of-the-cell-membrane www.kscience.co.uk/animations/plasmolysis.htm</p> <p>Homework/Assignments:</p>

<https://phet.colorado.edu/en/simulation/legacy/the-ramp>

Balancing act simulation:

<https://phet.colorado.edu/en/simulation/balancing-act>

Teacher notes and learner worksheets from the IoP on forces in equilibrium and turning effects:

<https://spark.iop.org/episode-202-forces-equilibrium>

<https://spark.iop.org/episode-203-turning-effects>

Homework/Assignments:

Practice sheet [topical Question]

Solve –Topic wise questions from past papers and end of topic questions

ISLAMIC ARABIC

Topics:

آداب الحوار

Learning Objectives:

ان يبين المقصود بأدب الحوار

* أن يحدد آداب الحوار و صفات المحاور

* أن يعدد آداب الاستماع و فوائد الاصغاء

* أن يتعلم آفات الحوار

Resources needed:

الكتاب المدرسي

بوربوينت

أنشطة تعليمية

منصة ألف

Homework/Assignments:

- حل أنشطة الطالب
- حل أسئلة منصة ألف

ISLAMIC EDUCATION

Topics:

Islamic manners and Dialogue

Learning Objectives:

EXPLAIN THE MEANING OF THE QURANIC AYAT

EXPLAIN THE ISLAMIC MANNERS AND ITS BENEFITS

Resources needed:

b. Links: Quran.com, Understand Quran Academy, Bayyinah TV

Homework/Assignments:

SOLVE STUDENTS' ACTIVITIES IN TEXTBOOK

REVISE PPT

CHEMISTRY

Topics: Chemical Energetics

Learning Objectives

- 1) Understand that chemical reactions are accompanied by enthalpy changes and these changes can be exothermic (ΔH is negative) or endothermic (ΔH is positive).

ACCOUNTING

Topics:

Accounting for non current assets

Learning Objectives:

To record journal entries to record depreciation

To formulate ledger accounts on depreciation on disposal

2) Construct and interpret a reaction pathway diagram, in terms of the enthalpy change of the reaction and of the activation energy.

3) Understand that energy transfers occur during chemical reactions because of the breaking and making of chemical bonds.

Resources needed:

Learners draw energy diagrams to show the difference between exothermic and endothermic reactions:

www.chemguide.co.uk/physical/energetics/basic.html#top

Save My exams

Homework/Assignments:

- 1) Topical Questions
- 2) Save My exams

Resources needed:

AS and A level Accounting text book By David Hopkins and Harold Randall

Homework/Assignments:

Topical questions
Read text book and prepare summary notes

BUSINESS

Topics:

1.5.2 The relative importance and influence of stakeholders on business activities

Learning Objectives:

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

To analyse how changing business objectives might affect its stakeholders

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

Resources needed:

ISBN:9781108921220

www.tutor2u.net/business/gcse/organisation_stakeholders_ethics.html

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Homework/Assignments:

Solving Data response questions at the end of unit and record them in notebook.