LEARNING TRAILS AY 2026-27

YEAR: 13 **TERM 1_WEEK 10(Nov 9th – 13th Nov , 2026)**

IT	MATHEMATICS
Topics: Communication technology: Networks. Animation. **Learning Objectives:** Describe different types of networks: • Peer-to-peer network. • Client-server network. • Virtual private network. • Mobile network. Discuss the characteristics of each type of network, including: –topologies (physical and logical) –architecture –protocols Describe the advantages and disadvantages of each type of network. Use motion tween to create animated image/video. Use classic tween to create animated videos. Use shape tween to do morphing. **Resources needed:** Computer system, Adobe animate CC, Task sheets, textbook. **Homework/Assignments:** Solve past paper questions.	**Topics:** Integration **Learning Objectives:** The students shall be able to: • extend the idea of 'reverse differentiation' to include the integration of e^{ax+b}, $\frac{1}{ax+b}$, $\sin(ax+b)$, $\cos(ax+b)$, $\sec^2(ax+b)$ and $\frac{1}{x^2+a^2}$ • use trigonometrical relationships in carrying out integration • integrate rational functions by means of decomposition into partial fractions **Resources needed:** Smart Board, White board, Textbook, topical past paper questions **Homework/Assignments:** Integration of Trigonometric Identities | P3 | A Level 9709 Integration | Finding Area | Pure Mathematics 3 | 9709

ADVANCED ARABIC	GENERAL ARABIC
Topics: قصيدة البركة ـ ـــــــــــ كاد وأخواتها **Learning Objectives:** أن يحلل المتعلم أبيات القصيدة أن يشارك المتعلم في حل أسئلة الدرس أن يعرف المتعلم كاد وأخواتها أن يستنتج المتعلم أركان جملة كاد وأخواتها أن يعرب المتعلم جملة كاد وأخواتها أن يوظف المتعلم جملة كاد وأخواتها في جمل مفيدة **Resources needed:** **الكتاب المدرسي ـ البوربوينت ـ السبورة الذكية ـ بطاقات تفاعلية ـ دفتر الطالب** **Homework/Assignments:** **كتابة فقرة قصيرة عن الاستدامة مستخدما جملة كاد وأخواتها**	**Topics:** **درس مراحل حياة افنسان** **Learning Objectives:** أن يفسر المتعلم المفردات الجديدة أن يوظف المفردات في جمل مفيدة أن يحدد المتعلم الفكرة الرئيسة والفكر الفرعية للدرس أن يستخرج المتعلم المهارات اللغوية والنحوية من الدرس **Resources needed:** كتاب الطالب- السبورة الذكية ـ العرض التقديمي **Homework/Assignments:** كتابة فقرة عن مرحلة الشباب ودورهم في بناء المجتمع.
PHYSICS	**BIOLOGY**
Topics: Electric Field , Capacitors **Learning Objectives:** Should be able to Compare electric and gravitational field Solve problems using equations in electric field Define capacitor Calculate energy stored in a capacitor Describe the effect of connecting capacitors in series and parallel Explain discharging graph and apply exponential equation to solve problems **Resources needed:** Copy book, calculator, sample questions **Homework/Assignments:** Topical past papers – Electric field	**Topics:** Inheritance- The roles of genes in determining the phenotype **Learning Objectives:** 1. Explain and predict the results of dihybrid crosses that involve autosomal linkage and epistasis. 2. interpret and construct genetic diagrams, including Punnett squares, to explain and predict the results of test crosses 3. use the chi-squared test to test the significance of differences between observed and expected results 4. Explain the relationship between genes, proteins and phenotype- • TYR gene, tyrosinase and albinism • HBB gene, haemoglobin and sickle cell anaemia • F8 gene, factor VIII and haemophilia • HTT gene, huntingtin and Huntington's disease 5. Explain the role of gibberellin in stem elongation including the role of the dominant allele, Le. **Resources needed:**

	PPT, Smart board, past papers **Homework/Assignments:** Practice topical questions- 9700/42
CHEMISTRY	**ACCOUNTING**
Topics: 30 Hydrocarbons **Learning Objectives:** **1 describe the chemistry of arenes as exemplified by the following reactions of benzene and methylbenzene:** **(a) substitution reactions with Cl_2 and with Br_2 in the presence of a catalyst, $AlCl_3$ or $AlBr_3$, to form halogenoarenes (aryl halides)** **(b) nitration with a mixture of concentrated HNO_3 and concentrated H_2SO_4 at a temperature between 25 °C and 60 °C** **(c) Friedel–Crafts alkylation by CH_3Cl and $AlCl_3$ and heat** **(d) Friedel–Crafts acylation by CH_3COCl and $AlCl_3$ and heat** **(e) complete oxidation of the side-chain using hot alkaline $KMnO_4$ and then dilute acid to give a benzoic acid** **(f) hydrogenation of the benzene ring using H_2 and Pt/Ni catalyst and heat to form a cyclohexane ring** **2 describe the mechanism of electrophilic substitution in arenes:** **(a) as exemplified by the formation of nitrobenzene and bromobenzene** **(b) with regards to the effect of delocalisation (aromatic stabilisation) of electrons in arenes to explain the predomination of substitution over addition** **3 predict whether halogenation will occur in the side-chain or in the aromatic ring in arenes depending on reaction conditions**	**Topics:** Partnership Changes **Learning Objectives:** To record accounting treatment on admission and retirement of partners **Resources needed:** PPT Task sheet Video **Homework/Assignments:** Topical questions

4 describe that in the electrophilic substitution of arenes, different substituents direct to different ring positions (limited to the directing effects of $-NH_2$, –OH, –R, $-NO_2$, –COOH and –COR) **Resources needed:** **Textbook, past papers** **Homework/Assignments:** Questions from past papers	
ISLAMIC ARABIC	**ISLAMIC EDUCATION**
Topics: **المسؤولية في الإسلام** **Learning Objectives:** أن يميز بين المسؤولية الفردية والجماعية أن يحدد نظرة الاسلام للمسؤولية والانسان أن يوضح مجالات المسؤولية الفردية أن يبين العلاقة بين المسؤولية الفردية والجماعية أن يمثل للمسؤولية الجماعية من مؤسسات المجتمع الاماراتي ويتحمل مسؤولية ما كلف به **Resources needed:** • الكتاب المدرسي. • القرآن الكريم والسنة النبوية. • العرض التقديمي والسبورة الذكية. • أوراق عمل متمايزة تناسب مستويات الطلبة **Homework/Assignments:** حل أسئلة الكتاب المدرسي المتعلقة بدرس السنن الربانية. حل منصة ألف التعليمية	**Topics:** **Responsibility in Islam** **Learning Objectives:** • Distinguish between individual and collective responsibility. • Explain the Islamic view of responsibility and human beings. • Identify the areas of individual responsibility. • Explain the relationship between individual and collective responsibility. • Give examples of collective responsibility through institutions in UAE society and take responsibility for assigned tasks. **Resources Needed:** • Textbook. • The Holy Qur'an and Prophetic Sunnah. • Presentation and smartboard. • Differentiated worksheets suited to students' learning levels. **Homework/Assignments:** • Complete the textbook questions related to the lesson "Divine Laws."

	Note: The original homework refers to "Divine Laws." If you mean the current topic, use "Responsibility in Islam" instead.
BUSINESS	**ECONOMICS**
Topics: Business Communication **Learning Objectives:** • analyse the causes of barriers to communication and how to overcome them • evaluate the differences between one- and two-way, vertical and horizontal, formal and informal communication • evaluate the role of management in facilitating communication **Resources needed:** **Text book** **PPT** **Case studies** **Homework/Assignments:** **Practice end of chapter case studies**	**Topics:** Differing objectives of frims , Government policies to achieve efficient resource allocation and correct market failure **Learning Objectives:** To analyse the conditions of price discrimination To explain the pricing policies To analyse the relationship between price elasticity of demand and a firms revenue To explain how a range of tools can be used to correct market failure To evaluate the effectiveness of the tools used to correct market failure **Resources needed:** PPT Text book Past paper Marking scheme **Homework/Assignments:** Topical questions