هيكل اختبار نهاية الفصل للعلوم



تم تحميل هذا الملف من موقع المناهج الإماراتية	
موقع المناهج ⇦ المناهج الإماراتية ⇦ علوم ⇦ الفصل الأول ⇦ ملفات متنوعة ⇦ الملف	
تاريخ إضافة الملف على موقع المناهج: 2026-11-09 10:07:48	
ملفات ا كتب للمعلم ا كتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس	المزيد من مادة علوم:

التواصل الاجتماعي بحسب					
صفحة المناهج الإماراتية على فيسبوك					
المواد على تلغرام	التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات	

المزيد من الملفات بحسب والمادة علوم في الفصل الأول

تحميل تطبيق المناهج للهواتف الذكية	
تطبيق المناهج على Store App (آبل)	تطبيق المناهج على Play Google (أندرويد)

UNITED ARAB EMIRATES
MINISTRY OF EDUCATION

الإمارات العربية المتحدة
وزارة التربية والتعليم

End of Term 1 Exam Coverage	هيكل اختبار نهاية الفصل الدراسي الأول
Grade 8-Advanced - Science	**الصف الثامن المتقدم - العلوم**
Academic Year 2026-2027	العام الدراسي 2027-2026
Inspire	انسباير

عدد الأسئلة Number of questions	درجة السؤال Marks per question	الدرجة القصوى الممكنة Maximum overall grade
MCQ Questions: 20 **FRQ Questions: 5**	**MCQ Questions: 20** **FRQ Questions: 5**	**100**

مدة الاختبار Exam duration	طريقة التطبيق Mode of implementation	الآلة الحاسبة Calculator
150 دقيقة **150 minutes**	**إلكتروني وورقي** **Electronic & Paper**	**يُسمح باستخدام الآلة الحاسبة العلمية** **The use of a scientific calculator is allowed**

Questions might appear in a different order in the actual exam.
Reference: Check ECD for details.
⚠ Practice Questions Document: The practice questions document attached with the ECD, includes screenshots taken from the student book for the examples referenced in the ECD, as well as additional examples related to the listed learning outcomes.

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نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة اختيار من متعدد Multiple Choice Questions	Q1	Identify the magnetic interaction between two magnets and determine whether an external force is required to separate them or bring them close to each other.	Book: Grade 8 Advanced	181	Section: The forces between magnetic poles
			Book: Grade 8 Advanced	195	Three-Dimensional Thinking
			pdf	pdf	1
	Q2	Understand the role of magnetic fields in the operation of electric generators and the conversion of energy between mechanical and electrical forms.	Book: Grade 8 Advanced	252	Investigation
			Book: Grade 8 Advanced	253	Section: Mechanical Energy to Electrical Energy
			pdf	pdf	2
	Q3	Understand the characteristics of electric current produced by an electric generator.	Book: Grade 8 Advanced	253	Section: Types of Current
			pdf	pdf	3
	Q4	Predict how changes in the strength of a magnet, its speed of movement relative to a coil, its orientation and the number of turns in the coil, affect the magnitude of the induced voltage and induced current.	Book: Grade 8 Advanced	255, 256	Section: Increasing Electric Current
			pdf	pdf	4a, 4b, 4c, 4d
	Q5	Classify common materials as electrical conductors or insulators.	Book: Grade 8 Advanced	211	Section: Conductors and Insulators
			pdf	pdf	5

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة اختيار من متعدد Multiple Choice Questions	Q6	Interpret graphical data to describe and compare magnetic field strengths at different distances from a current-carrying wire.	Book: Grade 8 Advanced	241	Section: Increasing Magnetic Field Strength Around a Wire
			Book: Grade 8 Advanced	259	Three-Dimensional Thinking
			pdf	pdf	6a, 6b
	Q7	Describe wave motion as the transfer of energy through a medium without the transfer of matter.	Book: Grade 8 Unit 3	12	Section: Waves
			pdf	pdf	7
	Q8	Correctly identify that mechanical waves include both transverse and longitudinal types.	Book: Grade 8 Unit 3	13	Section: Mechanical Waves
			pdf	pdf	8
	Q9	Describe the structure of longitudinal waves, including compressions and rarefactions, in sound propagation.	Book: Grade 8 Unit 3	14	Section: Longitudinal Waves
			Book: Grade 8 Unit 3	14	Section: Sound Waves
			Book: Grade 8 Unit 3	15	Section: Sound Wave Models
			pdf	pdf	9
	Q10	Identify and interpret the characteristics of transverse waves using diagrams, including amplitude, wavelength, crests, troughs and the rest position.	Book: Grade 8 Unit 3	19	Section: Proportional Relationships
			Book: Grade 8 Unit 3	20	Math Connection
			pdf	pdf	10a, 10b

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة اختيار من متعدد Multiple Choice Questions	Q11	Recall the definition of intensity	Book: Grade 8 Unit 3	23	Section: Amplitude, Intensity and Loudness
			pdf	pdf	11
	Q12	Interpret and apply the decibel scale to compare sound intensities in real-world contexts.	Book: Grade 8 Unit 3	23	Section: Amplitude, Intensity and Loudness
			Book: Grade 8 Unit 3	33	Math Connection
			pdf	pdf	12a, 12b, 12c
	Q13	Identify wavelength of a transverse wave as the distance between two crests (or troughs).	Book: Unit 3	26	Section: Wavelength
			pdf	pdf	13
	Q14	Determine the period of a wave from a sequence of images showing its motion over time and use it to calculate the frequency.	Book: Grade 8 Unit 3	26	Section: Frequency
			Book: Grade 8 Unit 3	27	Section: Wavelength and Frequency
			Book: Grade 8 Unit 3	27	Math Connection
			pdf	pdf	14a, 14b, 14c
	Q15	Understand the relationship between sound properties and their physical causes, specifically that pitch is determined by frequency.	Book: Grade 8 Unit 3	30	Section: Pitch
			pdf	pdf	15a, 15b
	Q16	Interpret diagrams and descriptions to identify and explain the behaviour of sound waves when interacting with materials and barriers.	Book: Grade 8 Unit 3	43	Section: Absorption
			Book: Grade 8 Unit 3	43	Section: Transmission
			pdf	pdf	16a, 16b, 16c

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة اختيار من متعدد Multiple Choice Questions	Q17	Understand that sound travels at different speeds through different media and compare the speed of sound in solids, liquids, and gases.	Book: Grade 8 Unit 3	47	Section: Speed of Sound
			Book: Grade 8 Unit 3	53	Three-Dimensional Thinking
			pdf	pdf	17a, 17b, 17c, 17d, 17e
	Q18	Understand the relationship between wavelength and frequency of electromagnetic waves across the electromagnetic spectrum.	Book: Grade 8 Unit 3	83	Three-Dimensional Thinking
			pdf	pdf	N/A
	Q19	Interpret ray diagrams of light reflection.	Book: Grade 8 Unit 3	93	Three-Dimensional Thinking
			pdf	pdf	19
	Q20	Understand how light reflects from different surfaces and distinguish between regular and diffuse reflection.	Book: Grade 8 Unit 3	100	Section: Regular and Diffuse Reflection
			Book: Grade 8 Unit 3	103	Three-Dimensional Thinking
			pdf	pdf	20a, 20b
أسئلة مقالية Free Response Questions	Q21	Demonstrate an understanding of the fundamental properties of electric charge, electrostatic interactions, electrical neutrality, and the conservation of electric charge by distinguishing between scientifically correct and incorrect statements about these concepts.	Book: Grade 8 Advanced	204	Section: Charges
			Book: Grade 8 Advanced	211	Section: Neutral Objects
			Book: Grade 8 Advanced	212	Section: Conservation of Charge
			pdf	pdf	21a, 21b, 21c

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة مقالية Free Response Questions	Q22	1. Identify the instrument used to measure voltage in an electrical circuit and state the unit of measurement. 2. Use differences in lamp brightness to compare the electrical energy supplied by batteries under the same conditions.	Book: Grade 8 Advanced	227	Section: Voltage
			Book: Grade 8 Advanced	227	Three-Dimensional Thinking
			pdf	pdf	22a, 22b, 22c, 22d, 22e
	Q23	1. Predict and explain how changes in the number of turns in a coil, the presence of an iron core, and the applied voltage affect the strength (of the magnetic field) of an electromagnet. 2. Describe the energy conversion that occurs in an electric motor, identifying electrical energy as the input and mechanical energy as the output.	Book: Grade 8 Advanced	242	Section: Electromagnets
			Book: Grade 8 Advanced	242	Three-Dimensional Thinking
			Book: Grade 8 Advanced	246	Section: Electromagnets
			Book: Grade 8 Advanced	246	Three-Dimensional Thinking
			pdf	pdf	23a, 23b, 23c, 23d, 23e
	Q24	1. Apply the relationship between wave energy and the square of its amplitude to calculate wave energy or amplitude using given data. 2. Understand the physical characteristics of waves, including amplitude, wavelength and frequency. 3. Interpret graphical representation and wave diagrams to determine amplitude and wavelength. 4. Know how to calculate frequency of a wave.	Book: Grade 8 Unit 3	19	Proportional Relationships
			Book: Grade 8 Unit 3	20	Math Connection
			Book: Grade 8 Unit 3	26	Section: Wavelength
			Book: Grade 8 Unit 3	26	Section: Frequency
			Book: Grade 8 Unit 3	32	Summarize It!
			pdf	pdf	24a, 24b, 24c, 24d, 24e

نوع الأسئلة Question type	Q	Learning outcome	Reference	Page	(Practice Questions Document) Question Number
أسئلة مقالية Free Response Questions	Q25	1. Interpret ray diagrams to identify the incident ray, reflected ray, normal, and angles of incidence and reflection 2. Recall and apply the law of reflection.	Book: Grade 8 Unit 3	91	Lab: Mirrored View
			Book: Grade 8 Unit 3	92	Section: Law of Reflection
			pdf	pdf	25a, 25b