

تم تحميل هذا الملف من موقع المناهج الإماراتية



نموذج اختبار تدريبي متبوع بالإجابات منهج انسابير

موقع المناهج ← المناهج الإماراتية ← الصف الرابع ← علوم ← الفصل الثاني ← اختبارات ← الملف

تاريخ إضافة الملف على موقع المناهج: 11:54:24 2025-03-09

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي للمدرس

المزيد من مادة
علوم:

التواصل الاجتماعي بحسب الصف الرابع



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف الرابع والمادة علوم في الفصل الثاني

أسئلة الامتحان النهائي القسم الورقي منهج انسابير

1

حل نموذج تدريبي لاختبار نهاية الفصل

2

نموذج تدريبي لاختبار نهاية الفصل

3

حل تدريبات على الامتحان وفق الهيكل الوزاري

4

تدريبات على الامتحان وفق الهيكل الوزاري

5

Mock Exam Practice for Grade 4 Term 2 2024-2025

Al Sumow KG and Cycle 1
Mock Exam Practice
Grade4
Term 2

2024-2025

Name اسم الطالب
Class الصف
School المدرسة
Subject المادة

Notes:

This exam is a practice

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الدليل الإرشادي للامتحان Exam Guidelines

محتوى الامتحان Syllabus	المادة Subject	اليوم والتاريخ Day & Date
Inspire Curriculum	Science	
Outcomes:		
1	Students will identify and describe examples of energy changes in everyday situations.	
2	Students will classify materials as thermal conductors or insulators based on their ability to transfer heat.	
3	Students will classify natural resources as renewable or nonrenewable based on their characteristics.	
4	Students will identify and describe the type of energy produced by friction, specifically the generation of heat energy when rubbing hands together.	
5	Students will identify and categorize different types of energy sources.	
6	Students will identify and name renewable energy sources.	
7	Students will describe and identify the energy change shown in a picture, recognizing how energy is transferred or transformed in different situations.	
8	Students will identify fossil fuels and recognize which energy sources are not fossil fuels.	
9	Students will explain chemical energy and identify examples of it in real-life situations, using a given image to support their understanding	
10	Students will explain how human activities can change or affect the habitats of animals and plants.	
11	Students will identify sound energy as a type of energy produced by vibrations.	
12	Students will identify materials that are poor thermal conductors and understand how different materials transfer heat.	
13	Students will identify and understand how energy can transform from one type to another.	
14	Students will identify and describe different types of electric circuits.	

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15	Students will identify the percentage of energy outputs from incandescent and LED lightbulbs.
16	Students will describe how energy is transferred, including the conversion of energy from one type to another, and explain what happens when the circuit is broken.
17	Students will classify energy sources as renewable or nonrenewable and correctly identify whether statements about energy sources are true or false.
18	Students will identify and name types of thermal energy transfer, and describe the energy transformations in everyday examples.
19	Students will identify natural resources, explain their properties such as heat conductivity, describe the environmental impacts and also understand recycling materials
20	Students will identify and describe alternative energy sources, such as biomass, and explain their advantages. They will also learn how to interpret images to understand the percentage of each source of energy production.

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نماذج الأسئلة
Sample Questions

PART 1:

MULTIPLE CHOICE QUESTIONS

Circle the letter corresponding to the correct answer.

Question 1.1 (analyse)

Which of the following statements shows evidence of energy transferring?

A	Water stays at the same temperature
B	Ice cubes stay frozen in the freezer
C	A book sits on a shelf
D	Thunder claps loudly

Question 1.2 (apply)

Omar made the following observation.

The radio sitting on the table made the water in my glass move.

What can he conclude?

A	Some types of energy cannot transfer through water.
B	The sound energy of the radio transferred to the water.
C	The electrical energy of the radio transferred through the water.
D	Only light can move through water.

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Question 2.1 (recall)

Materials that conduct heat poorly are called

A	conductor
B	insulator
C	metal
D	battery

Question 2.2 (apply)

Which statement below explains why plastic is a good insulator?



A	Plastic is a good insulator because it allows heat to move easily through it.
B	Plastic is a good insulator because it does not allow heat to transfer easily.
C	Plastic is a good insulator because it is a metal.
D	Plastic is a good insulator because it is a gas.

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Question 3.1 (Recall)

Which of the following is considered a living natural resource?



Metal



Soil



Plant



Water

A	Plant
B	Metal
C	Soil
D	Water

Question 3.2 (Recall)

Which of the following is considered a living natural resource?



Air



Sun



Animal



Water

A	Water
B	Air
C	Sun
D	Animal

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Question 4.1 (Analyse)

When you rub your hands together quickly, what energy transfers are involved?

A	Friction between hands changes moving energy to thermal energy.
B	Friction between hands changes potential energy to electric energy.
C	Gravity between hands changes moving energy to sound energy.
D	Gravity between hands changes thermal energy to motion.

Question 4.2 (Apply)

Why is the man rubbing his hands together on a cold day?



A	Friction generates thermal energy.
B	Friction generates electric energy.
C	Gravity generates sound energy.
D	Gravity generates potential energy.

Question 5.1 (Analyse)

Which pictures show how we can use the energy from moving water and air?



A



B



C



D

A	A only
B	A and C
C	A and D
D	B and C

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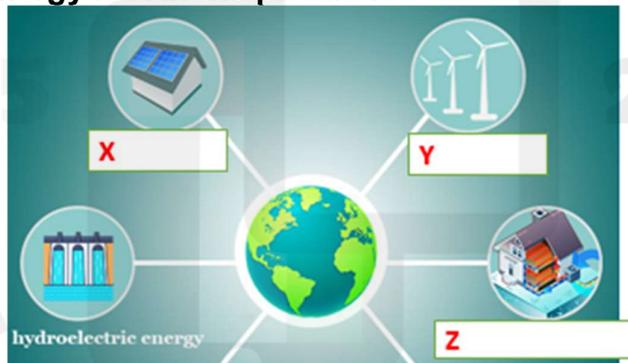
Question 5.2 (recall)

Which of the following best describes using hot water that lies deep inside earth to generate electricity?

A	Light energy
B	Nuclear energy
C	Geothermal energy
D	Sound energy

Question 5.3 (recall)

What type of energy is X in the picture?



A	Biomass energy
B	Wind energy
C	Geothermal energy
D	Solar energy

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Question 6.1 (recall)

Which of the following is a renewable resource of energy?

A	Wood
B	Oil
C	Natural gas
D	Coal

Question 6.2 (recall)

..... is a useful material that is replaced quickly in nature.

A	An alternative energy source
B	A renewable resource
C	A nonrenewable resource
D	Coal

Question 7.1 (apply)

What type of energy transfer and transformations occur when you flip a light switch at your house?



A	Chemical energy moving in the wires changes into light and sound.
B	Electrical energy moving in the wires changes into light and heat.
C	Electrical energy in the wires changes into light only.
D	Electrical energy in the wires stops moving and changes to light.

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Question 7.2 (Apply)

Which of the following best describes how does energy change in an electric bulb?



A	Chemical to thermal energy
B	Electrical to light energy
C	Electrical to chemical energy
D	Thermal to sound energy

Question 7.3 (Apply)

Which of the following examples resembles the transformation of motion to sound energy?

A	Plucked guitar string makes noise
B	Rubbing warm hands
C	Ball rolls down hill
D	Burning candle heats up

Question 8.1 (Recall)

Which of the following is NOT a fossil fuel?

A	Coal
B	Oil
C	Natural Gas
D	Uranium

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Question 8.2 (Recall)

Which of the following is a fossil fuel?

A	Coal
B	Battery
C	Wood
D	Uranium

Question 9.1 (Recall)

What form of energy is present in the image?



A	Nuclear
B	Chemical
C	Sound
D	Kinetic

Question 9.2 (Recall)

What form of energy is present in the image?

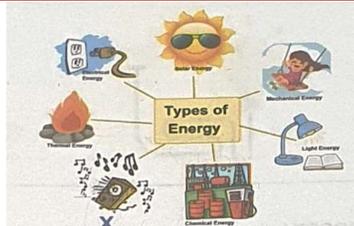


A	Nuclear
B	Chemical
C	Sound
D	Kinetic

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Question 9.3 (Recall)

The figure shows the types of energy. Which type of energy does the letter (X) refer to?



A	Sound energy
B	Wind energy
C	Geothermal energy
D	Nuclear energy

Question 10.1 (Apply)

How does burning fossil fuels affect the environment?



A	They harm the birds
B	They produce light
C	They cause air pollution
D	They block the natural migration of certain fish

Question 10.2 (Recall)

Which of the following causes water pollution?

A	Oil spills
B	Wind power
C	Hydroelectric energy
D	Burning fossil fuels

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Question 11.1 (Apply)

What makes the drum sound when hit?



A	Compression
B	Rarefaction
C	Vibration
D	Longitudinal

Question 11.2 (Recall)

What part of sound energy is needed for it to travel?

A	Light
B	Vibration
C	Heat
D	Shadow

Question 12.1 (Apply)

Which of the following slows down or stops the flow of electrical current?

A	Conductor
B	Insulator
C	Battery
D	Flashlight

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Question 12.2 (Apply)

Which of the following is a poor thermal conductor?



Copper



Silver



Gold



Wood

A	Copper
B	Silver
C	Gold
D	Wood

Question 13.1 (Analyse)

Which type of energy transformation occurs when you use the laptop in the figure below?



A	Electric energy to light energy only
B	Electric energy to light and sound energy
C	Electric energy to light and chemical energy
D	Electric energy to light, sound and thermal energy

Question 13.2 (Analyse)

Which type of energy transformation occurs when the teacher talks?



A	Electric energy to sound energy
B	Chemical energy to sound energy
C	Chemical energy to kinetic and sound energy
D	Electric energy to light, sound and kinetic energy

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Question 14.1 (Apply)

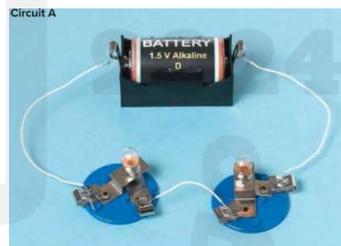
What is the correct type of circuit shown in the picture?



A	Series
B	Broken
C	Parallel
D	Open

Question 14.2 (Apply)

What is the correct type of circuit shown in the picture?



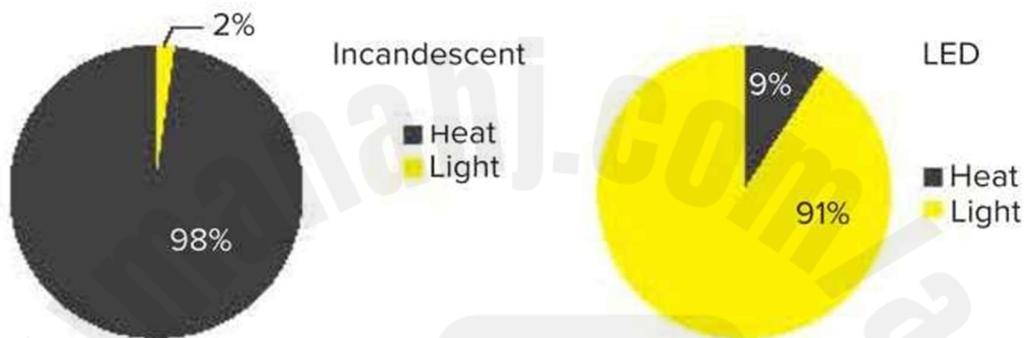
A	Series
B	Broken
C	Parallel
D	Open

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Question 15.1 (Analyse)

The figure below compares the percentages of heat and light energy produced from LED and incandescent light bulbs.

What is the percentage of **light** that is produced from each of them?



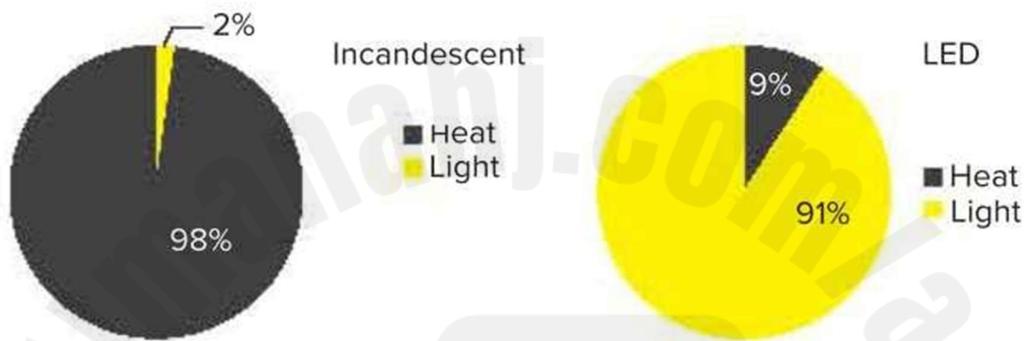
A	LED 91% and Incandescent 2%
B	LED 9% and Incandescent 2%
C	LED 98% and Incandescent 91%
D	LED 9% and Incandescent 2%

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Question 15.2 (Analyse)

The figure below compares the percentages of heat and light energy produced from LED and incandescent light bulbs.

What is the percentage of **heat** that is produced from each of them?



A	LED 9% and Incandescent 98%
B	LED 9% and Incandescent 2%
C	LED 91% and Incandescent 98%
D	LED 91% and Incandescent 2%

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PART 2: FREE RESPONSE QUESTIONS

Answer the following questions.

Question 16

The image shows a flashlight.



1. Use the words in the table to complete the sentences about how the energy is transferred when you turn on the device.

electricity	light	heat	switch	wire	energy
-------------	-------	------	--------	------	--------

- a) When you turn on the _____, electricity flows to the lightbulb.
- b) The _____ carries the electricity to the lightbulb.
- c) The lightbulb changes _____ energy into other types of energy.
- d) The lightbulb gives off _____ so we can see.
- e) It also gives off _____, which makes it warm.
- f) This shows how _____ moves from one form to another.

2. Explain what happens if the circuit is broken?

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Question 17

1. Classify the images of energy sources in the picture below as either renewable or nonrenewable.



Renewable energy	Nonrenewable energy

2. Write true or false for each sentence below

- i. Solar energy is a nonrenewable resource _____
- ii. Coal is a renewable resource because it can be made again quickly

- iii. Trees are a renewable resource because we can plant new trees.

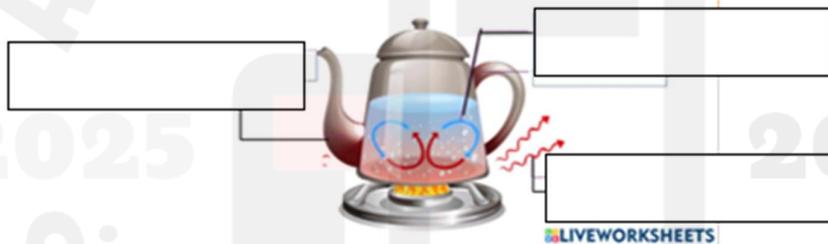
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Question 18

A. How does thermal energy get transferred from the Sun to the Earth in the image shown below?



B. Identify the types of thermal energy transfer in the image below.



C. Identify the energy transformations in each of the pictures below.

<p>1 Toaster</p>  <p>_____ → _____</p>	<p>2 Solar Calculator</p>  <p>_____ → _____</p>
<p>3 Photosynthesis</p>  <p>_____ → _____</p>	<p>4 Matchstick</p>  <p>_____ → _____ and _____</p>

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Question 19

Thermal Conductivity	
Material	How Many Times Better Than Air It Conducts Heat
Oak wood	6
Water	23
Brick	25
Glass	42
Stainless steel	534
Aluminum	8,300
Copper	15,300
Silver	16,300

A. Use the table to identify the best material to be used as a thermal conductor. Explain your choice.

B. What is the impact of obtaining the resource you have chosen on the environment?

C. What are ways we can conserve the natural resources stated above?

D. How does burning fossil fuels affect the environment?

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Question 20

A. Biomass energy comes from _____ things like plants and trees. (living / nonliving)

People burn _____ to make biomass energy (fossil fuels / plants)

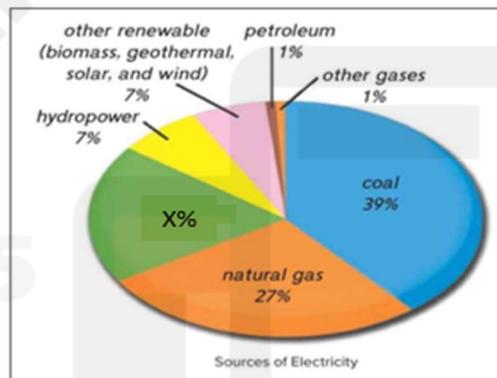
Biomass energy is _____ because we can grow more plants. (renewable / nonrenewable)

True or False:

Biomass energy comes from the sun. _____

Wood and food waste can be used to make biomass energy. _____

B.



i. What is the percentage (X%) of nuclear energy in the image above?

ii. Based on the “Sources of Electricity” pie chart, what is the total percentage of nonrenewable resources that are used to generate electricity?

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دليل الإجابة

Answer Guidelines

الإجابة Answer				رقم السؤال Item						
1.1	1.2	2.1	2.2	3.1						
D	B	B	B	A						
3.2	4.1	4.2	5.1	5.2						
D	A	A	B	C						
5.3	6.1	6.2	7.1	7.2						
D	A	B	B	B						
7.3	8.1	8.2	9.1	9.2						
A	D	A	B	A						
9.3	10.1	10.2	11.1	11.2						
A	C	A	C	B						
12.1	12.2	13.1	13.2	14.1						
B	D	D	C	C						
14.2	15.1	15.2								
A	A	A								
16.	 <p style="text-align: center;">Energy changes in a lightbulb</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>electricity</td> <td>light</td> <td>heat</td> <td>switch</td> <td>wire</td> <td>energy</td> </tr> </table> <p>a) When you turn on the switch, electricity flows to the lightbulb. b) The wire carries the electricity to the lightbulb. c) The lightbulb changes electricity energy into other types of energy. d) The lightbulb gives off light so we can see. e) It also gives off heat, which makes it warm. f) This shows how energy moves from one form to another.</p> <p>2. Explain what happens if the circuit is broken? <u>The light will go off. It will stop working</u></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>a-f 1 mark each 2. for 2 marks Total 8 marks</p> </div>				electricity	light	heat	switch	wire	energy
electricity	light	heat	switch	wire	energy					

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17.

Renewable energy	Nonrenewable energy
B, D, E, F, G, H	A, C

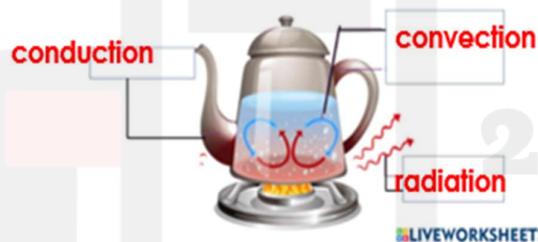
2. Write true or false for each sentence below

- Solar energy is a nonrenewable resource **false**
- Coal is a renewable resource because it can be made again quickly **false**
- Trees are a renewable resource because we can plant new trees. **true**

(1 mark each, 11 marks total)

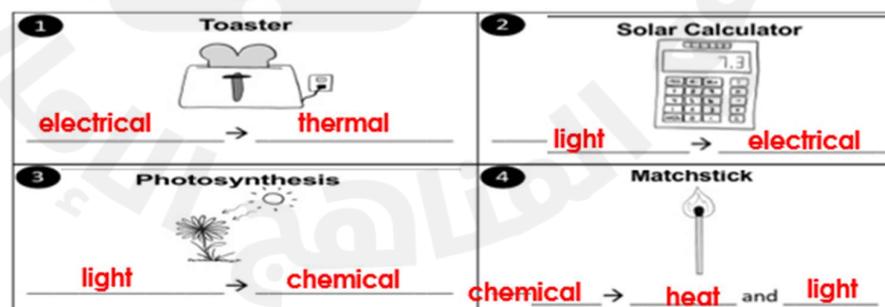
18.

A. How does thermal energy get transferred from the Sun to the Earth in the image shown above? **radiation**



B. Identify the types of thermal energy transfer in the images above.

C. Identify the type of energy transformations in the picture below.



1 mark per answer = 8 marks

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الإجابة Answer	رقم السؤال Item
19.	<p>A. Use the table to identify the best material to be used as a thermal conductor. Explain your choice. <u>Silver, because it is a solid metal and it is 16,300 times better than air at conducting heat.</u></p> <p>B. What is the impact of obtaining the resource you have chosen on the environment? <u>Mining metals cause trees, soil and rocks to be removed and destroy animals habitat (homes)</u></p> <p>C. What are ways we can conserve the natural resources stated above? <u>We can recycle waste metals to make new products.</u> <u>We can reduce (use less) and Reuse (use again).</u></p> <p>D. How does burning fossil fuels affect the environment? <u>Burning fossil fuels causes air pollution.</u></p> <p>(2 marks each) Total 8 marks</p>

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20.

A. Biomass energy comes from living things like plants and trees.
(living / nonliving)

People burn plants to make biomass energy (fossil fuels / plants)

Biomass energy is renewable because we can grow more plants.

(renewable / nonrenewable)

True or False:

Biomass energy comes from the sun. **False**

Wood and food waste can be used to make biomass energy. **True**

(1 mark each = 5 marks)

i. What is the percentage (X%) of nuclear energy in the image above?

$$1+1+39+27+X+7+7=100$$

$$82+X=100$$

$$X=18\%$$

1 mark for total

i. Based on the “Sources of Electricity” pie chart, what is the total percentage of nonrenewable resources that are used to generate electricity?

$$1+39+27+18=85\%$$

2 marks

(1 calculation and 1 for total)

(3 marks)