

أوراق عمل مراجعة وحدة energy of Types أنواع الطاقة

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

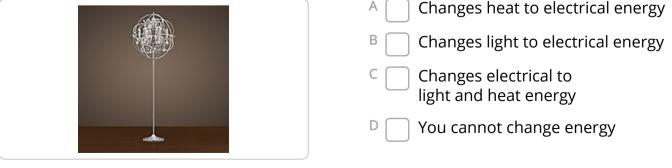
تاريخ نشر الملف على موقع المناهج: 13-01-2024 08:56:46

التواصل الاجتماعي بحسب الصف الرابع			
		CHANNEL	
روابط مواد الصف الرابع على تلغرام			
الرياضيات	<u>اللغة الانجليزية</u>	<u>اللغة العربية</u>	التربية الاسلامية

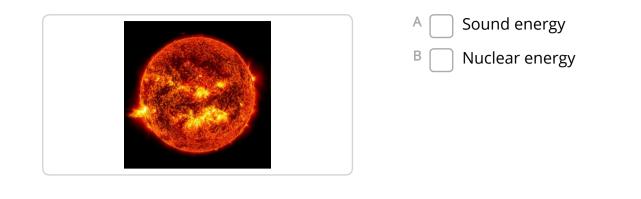
المزيد من الملفات بحسب الصف الرابع والمادة علوم في الفصل الثاني		
<u>أسئلة الامتحان النهائي - انسباير</u>		
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Na	me:

	္ပ်- A multiple choice quiz. Tick the boxes to re	ecord the answer		
1.	^{1.} A child hitting the drum creates vibrations that produce			
		 Light energy Sound energy 		
	When a person pluck string on a guitar ,	energy is transferred.		
		A Sound B Light		
3.	Which statement is true about LAMP?			
		 A Changes heat to electrical energy B Changes light to electrical energy C Changes electrical to 		



4. Nuclear reactions in sun release _____



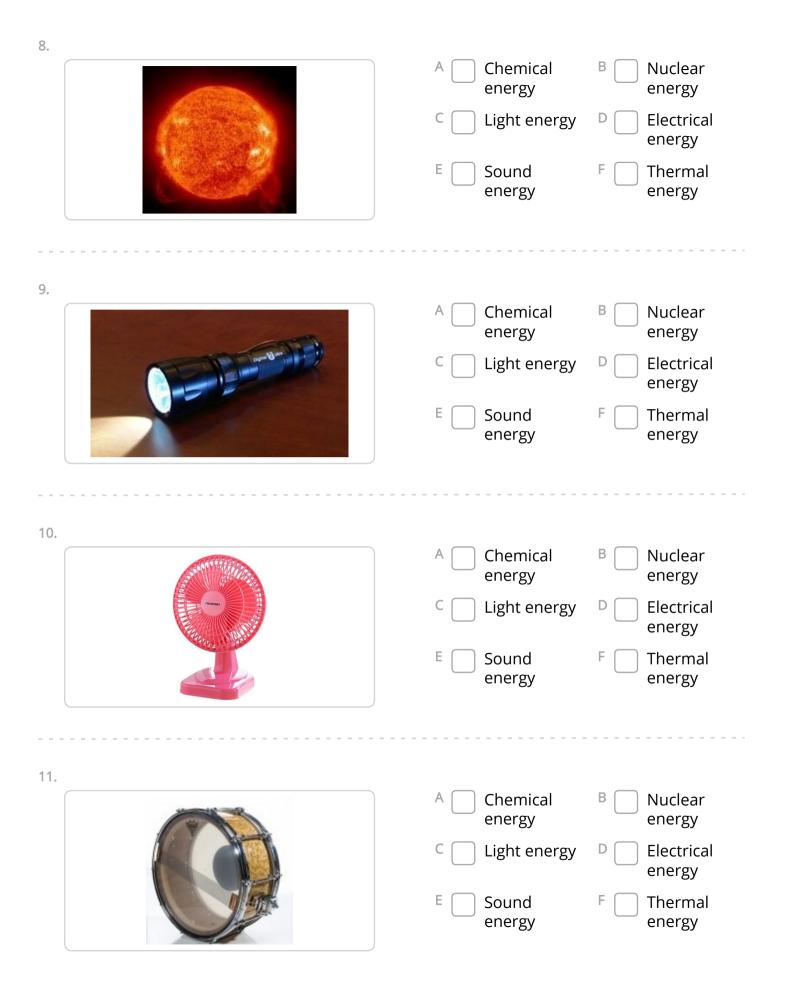
5. A fire truck siren and flashing lights are examples of

Select 2 answers

Lone Sta	A Heat B Light
A Committee of the second s	C Sound
	D Chemical
6. To stop a drum producing sound, you need	to
	 A Hit it harder B Hit it softer C Stop it from vibrating P Place it in water
7.	 A Chemical energy C Light energy D Electrical energy
	E Sound F Thermal

energy

energy





^{13.} How energy changes in the TOASTER?



14. Sunlight heats up the sidewalk

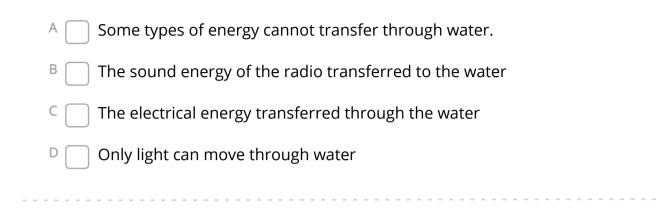
	A Chemical to thermal
A CARE AND A CARE	^B Electrical to light
	C Electrical to thermal
72 155	D Light to thermal
ר אוניר	

15. Battery powered flashlight

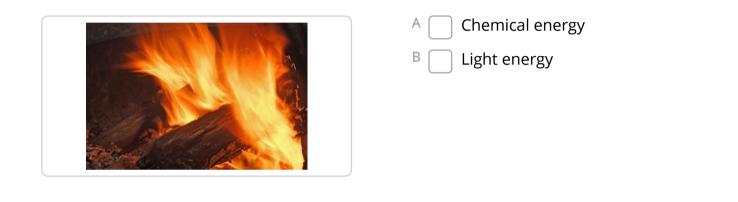


Chemical to electrical
Electrical to thermal
Electrical to sound

^{16.} The radio sitting on the table made the water in my glass move. Why?



17. Burning wood



18. Plant use ______ energy to make food



^{19.} Phones convert electrical energy into_____.



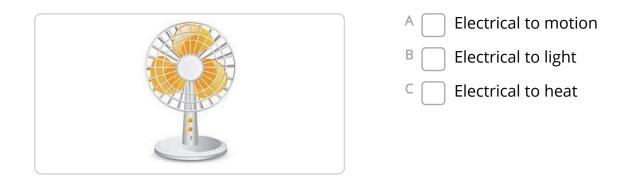
^{20.} Batteries have

		A B C D	Light energy Sound energy Chemical energy Nuclear energy	
21.	Select ""stored"" energy			
	Select 2 answers			
	A Chemical B Nuclear C energy energy	Electrical energy	D Light energy	E Thermal energy
22.	Select ""Energy of motion""			
	Select 3 answers			
	A Chemical B Nuclear C energy energy	Electrical energy	D Light energy	E Thermal energy
23.	A pom pom lancher			
	A second and a second	A 🗌	kinetic energy to t	hermal energy
		В	kinetic energy to s	ound energy
		C 🗌	stored energy to e	energy of motion
		D	energy of motion	to stored energy

^{24.} When a student plays guitar, it reaches the ear in form of

	 A Echoes B Potential energy C Thermal energy D Sound waves
 25. You are asked to design a product that will c A Hairdryer B Alarm clock 	hange "electrical energy to heat energy". C Ceiling fan D Cell phone
26. You are watching fireworks. Fireworks give the fireworks is the firework i	 ALight, sound, electrical BLight, sound, heat CSound, electrical, mechanical DHeat, mechanical, electrical
<image/>	 A The smoke shows that grills transferring heat energy to cook food. B The smoke shows that grills transferring sound energy to cook food. C The smoke shows that grills transferring electrical energy to cook food. C The smoke shows that grills transferring mechanical energy to cook food.

^{28.} Suppose you turn on a fan.Which energy conversion happens inside the motor.



^{29.} Energy can be changed from one form to another. Which can change mechanical energy into electrical energy.

•		
A Switch	B Electromagnet C Transformer D Generator	-

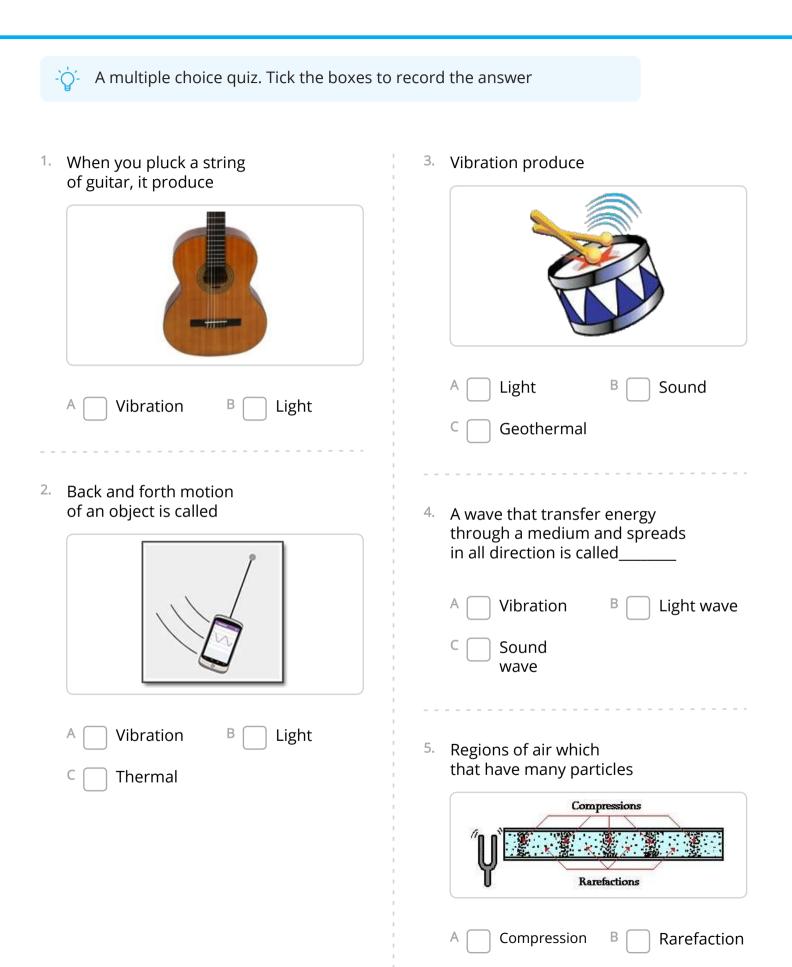
^{30.} For a flashlight to turn on: CHEMICAL ENERGY--> ELECTRICAL ENERGY-->LIGHT ENERGY



A	Energy transformations
В	Energy exchange
С	Energy being created
D	Energy being destroyed

SOUND AND LIGHT ENERGY

N	2r	ne	٠.
1 1	aı	110	



6.	Regions of air which that have fewer particles	9. 2 is
	Compressions Rarefactions	
	A Compression B Rarefaction	A Compression B Rarefaction
7.	Sound wave is a series of	
	and	10. 1 is
	Compression Rarefaction Compression Rarefaction Wavelength	
	A Compression and rarefactions	
	^B Compression and depressions	A Compression B Rarefaction
8.	1 is	
		^{11.} 2 is
	A Compression B Rarefaction	A Compression B Rarefaction
		 The substance through which wave travel is called
		A Medium B Energy

13. Sound travel the fastest in	17. Why are sounds not heard in space?
A Solids B Liquid C Gas 14. Sound travel the slowest in	 Space is too cold for sound waves to travel. There is too much matter to travel through in space. Space is a vacuum with few particles to travel through. Energy cannot travel in space.
C Gas	
15. Sound waves travels in the form of	18. Sound travel through outer space.
 A Longitudinal waves B Transverse waves 	A does B does not 19. How does sound energy travel?
16. Astronauts in space cannot talk to each other unless they use a radio to speak back and forth. Why is this?	A in strings B in beams C in pulses D in waves
 The air is too thick to carry sound waves efficiently. The force of gravity is too strong 	 A form of energy that allows you to see objects is
 to allow sound waves to travel. C There is no air in space, so there is no medium 	A Heat B Light C Solar D Vision
to carry sound waves. It is very loud in space, so they can only hear each other through a radio. 	energy 21. Light travels as tiny of energy.
	A Particles B Pressure

^{22.} A pom-pom launcher	26. Thermal energy is
A transfers kinetic energy to thermal energy	A the internal energy of an object due to the kinetic energy of its particles
B transforms kinetic energy to sound energy	^B the external energy of an object due to its potential energy
C transforms stored energy to energy of motion	c the internal energy of an object due to the stored
D transfers energy of motion to stored energy	energy of its particles D the external energy of an object due to its exposure to the Sup
23 cells are devices that use	due to its exposure to the Sun
light from the sun to make electricity	27. Sound energy is a type of
A Solar B Wind	A Stored energy
24. Solar cell are called	 B Infrared energy C Energy of motion
A Photovoltaic cells	D None of the above
^B Phonovoltaic	
^{25.} Identify the statement that	 Solar cells convert light energy into energy
correctly explains what happens when energy transfers in a system.	A Electrical B Sound energy
A About 75% of the energy is transferred, while the rest is destroyed.	29.
B All of the energy is transferred in different amounts to different forms.	
 Half of the energy is transferred in different amounts to different forms. 	
D Some of the energy gets transferred, while a portion is lost along the way.	A Solar cell B Battery

30. Solar cells need ______ energy

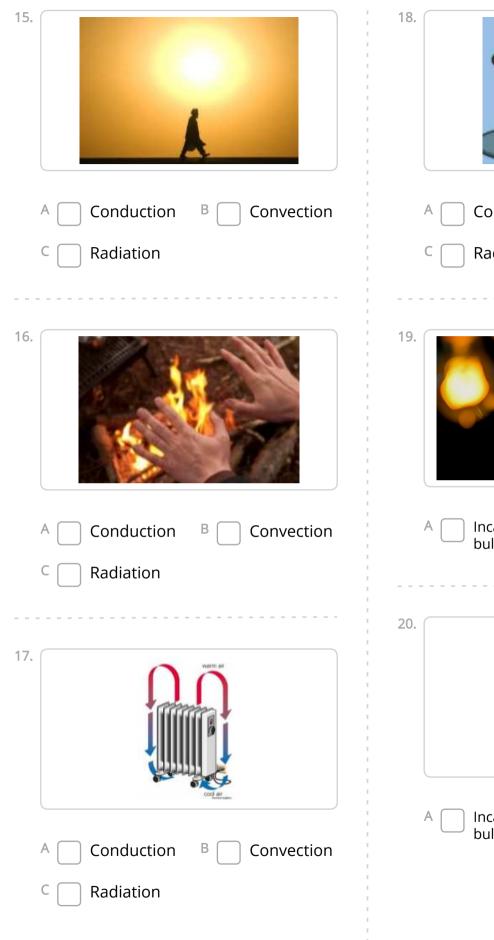
A Sound energy

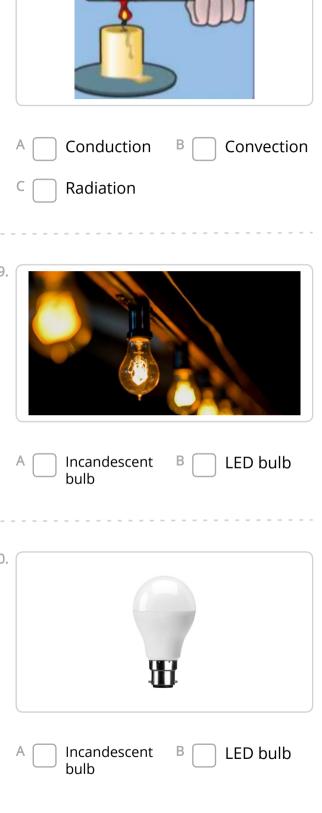
B Light energy

HEAT

-	္ပ်ံ- A multiple choice quiz. Tick the boxes to	record the answer
1.	Heat always transfers from to A Warmer,Colder B Colder,Warmer	 5 is excellent thermal conductor A Wood B Plastic C Aluminium
2.	Heat always transfers from to AHot,Cold BCold,Hot	6.
3.	Atransfers heat easily.	A Conduction B Convection C Radiation
4.	<text></text>	 7. A Conduction B Convection Caliation

8. You are watching fireworks on the fourth of July. When the fireworks are set off, they give off three forms of energy. Which three	11. When heat transfers when two objects are touching
forms of energy are given off?	A Conduction B Convection
	C Radiation
	12. When heat transfers without touching
	A Conduction B Convection
A light, sound, electrical	C Radiation
^B light, sound, heat	
c sound, electrical, mechanical	13. When heat transfers through liquid and gas
D heat, mechanical, electrical	A Conduction B Convection
	C Radiation
	14.
A Conduction B Convection	on
C Radiation	
	A Conduction B Convection
10.	C Radiation
A Conduction B Convection	on
C Radiation	







- 27. LED bulb transfer most energy into Heat Light 28. The smoke shows that the A grill is transferring heat energy to cook the food. В The smoke shows that the grill is transferring sound energy to cook the food. С The smoke shows that the grill is transferring electrical energy to cook the food. D The smoke shows that the grill is transferring mechanical energy to cook the food.
- 29. It is very hot outside and you walk barefoot on hot pavement. Predict what will happen in this scenario.



- A The transfer of heat energy from the pavement will cause your feet to feel hot.
- ^B The transfer of light energy from the pavement will cause your feet to feel hot.
- C The transfer of light energy from the pavement will cause your feet to feel cold.
- The transfer of heat energy from the pavement will cause your feet to feel cold.

30. A farmer needed to keep his baby chicks warm. He placed a light in their cage. Which sentence best explains the farmer's thinking of placing a light in the cage?



- A The farmer thought the light would transfer thermal energy to the chicks' cage.
- ^B The farmer thought that the chicks would be healthier if they were not in the dark.
- C The farmer thought that the chicks would eat more to stay warm if they can see their food.
- The farmer thought that the light would encourage the chicks to huddle together to keep themselves warm

Electricity

-🄆 A multiple choice quiz. Tick the boxes to r	ecord the answer
 Flow of electricity through a conductor Current B Convection Conduction Conduction Material through which electricity can flow easily 	5. Plastic is Image: Second
 A Conductor B Insulator 3. Material through which electricity cannot flow easily A Conductor B Insulator 	 A path along which electric current flows is called a(n) A Circuit B Resistor
4. Metal is Image: A Conductor B Image: A Sector	 7. An object which resists the flow of energy Image: Circuit B Resistor

8. A fan is plugged into an extension cord. The extension cord is plugged into a wall outlet. How does the extension cord help the fan work?

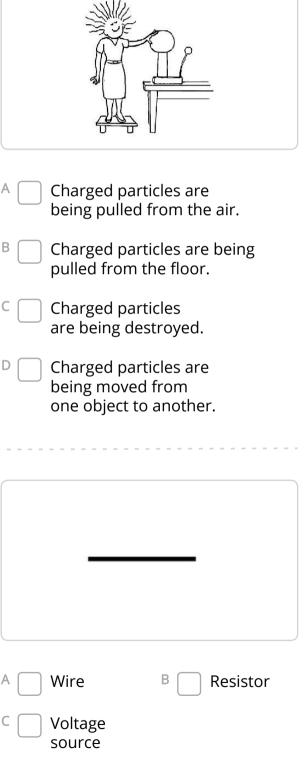
9.

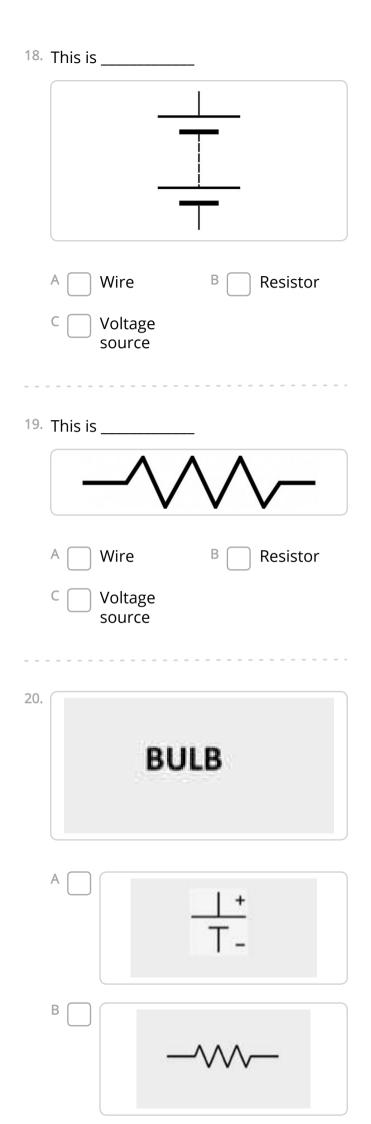
A fan is plugged into an extension cord. The extension cord is plugged into a wall outlet. How does the extension cord help the fan work?	10. An electric fence used to contain cattle works by transmitting energy through a conductor creating an electric
	Electric Fence
 The extension cord makes the fan more powerful. The extension cord makes the fan easier to operate. 	A Light B Sound C Current
 C The extension cord transfers sound energy to the fan. D The extension cord transfers electric currents from the outlet to the fan. A flow of electrical charges is known as 	 11. In an electric circuit, a battery can act as a A voltage source C insulator D resistor 12. A conductor is a
 A resistance B electrical current C static electricity D voltage 	 a material that increases the number of charged particles material that increases the amount of electricity material through which electricity flows easily material that stops the flow of energy

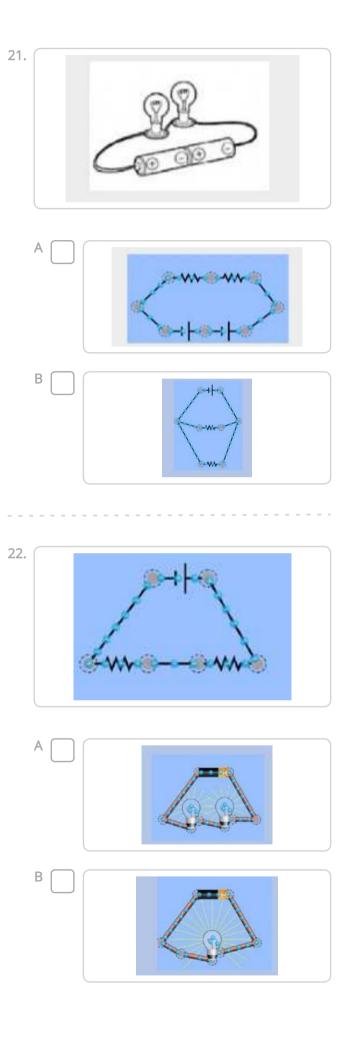
^{10.} An electric fence used to contain

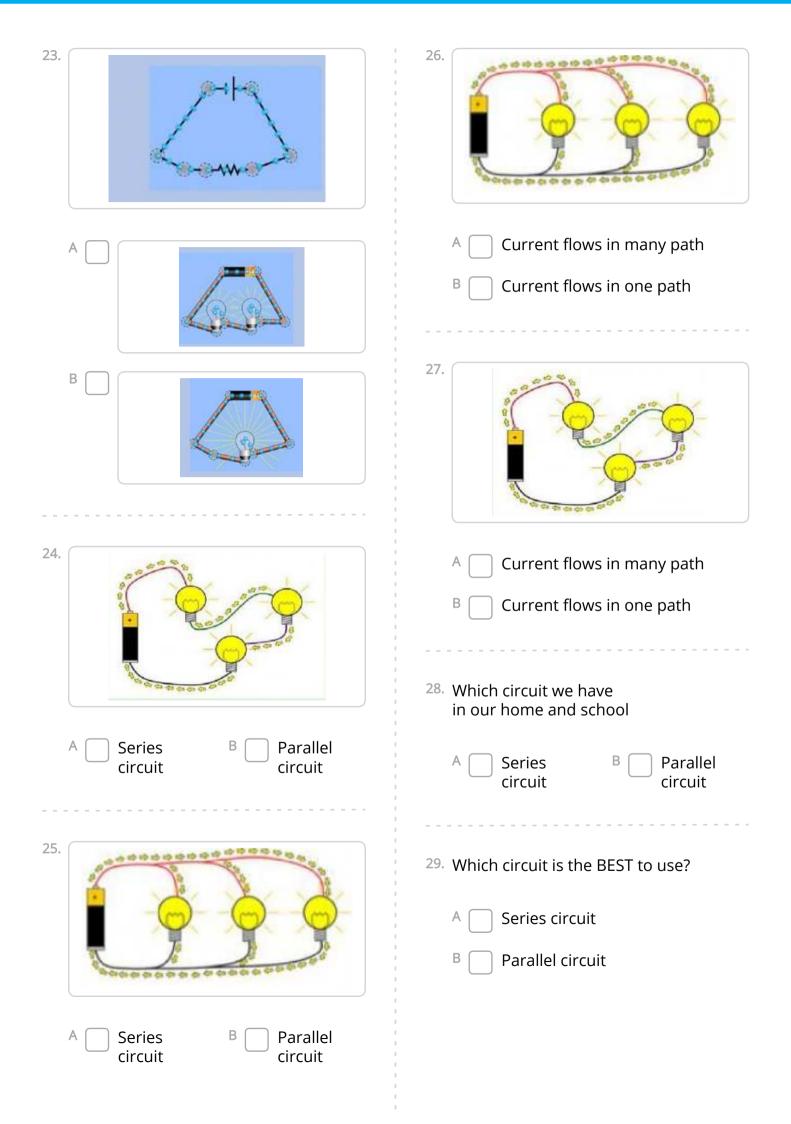
13. A switch in a circuit	16. J
* *	t t c
A 📄 acts as an insulator	
B absorbs electricity	
 allows or stops the flow of electricity 	
keeps the flow of electricity at a safe level	4
	E
 An object in an electrical circuit that resists the flow of energy is called 	
A a magnet B a compass	
C a voltage D a resistor	1 1 1
15. A student made the circuit . What does the student need to add to make the circuit work?	17.
A Another B Another bulb battery	
C Switch D Another wire	

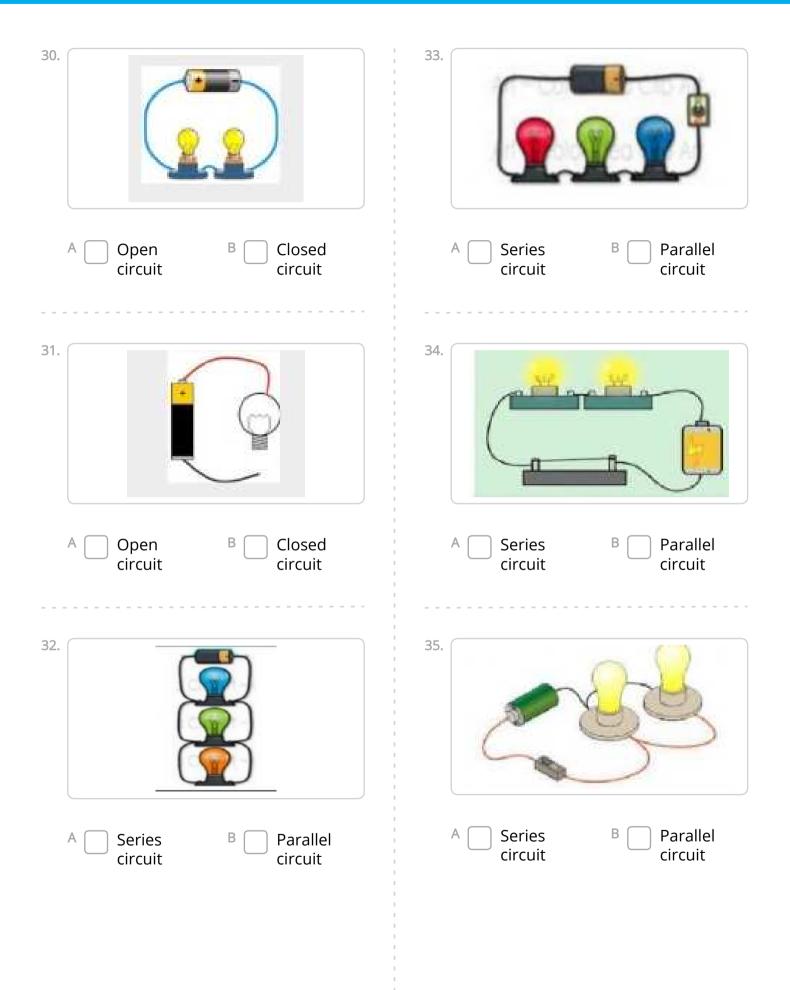
6. Amy touched a machine called a Van de Graaf generator. When she touched the generator all of her hair on the top of her head stood up. When she removed her hand from the generator, her hair fell back to its normal state. What conclusion can you draw from Amy touching the generator?











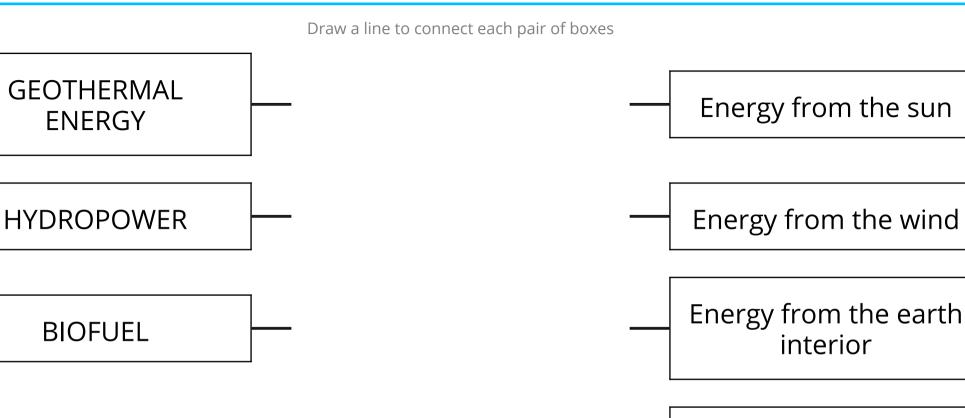
Renewable and Non-Renewable Resources Name: Tick the box to show which group each item is in Non-Renewable Renewable Renewable Non-Renewable Resources Resources Resources Resources 1. Hydropower 5. Oil 6. Solar Nuclear Energy 2. 7. Wind 3. Coal Natural Gas Geothermal 8. 4.

RENEWABLE RESOURCES

WIND ENERGY

SOLAR ENERGY

Name:



Energy from the plants and animals

Energy from the water

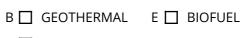
RENEWABLE RESOURCES

1. Energy from the sun A SOLAR ENERGY B WIND ENERGY C GEOTHERMAL ENERGY D HYDROPOWER 2. Energy from the wind A BIOFUEL C HYDROPOWER B ☐ SOLAR ENERGY D ☐ WIND ENERGY 3. Energy from the earth interior A HYDROPOWER B GEOTHERMAL ENERGY C VIND ENERGY D SOLAR ENERGY Energy from the plants and animals 4. A SOLAR ENERGY B GEOTHERMAL ENERGY C U WIND ENERGY D D BIOFUEL Energy from the water 5. A GEOTHERMAL ENERGY B SOLAR ENERGY C 🔲 BIOFUEL D HYDROPOWER

Name:

6.





C 🗌 WIND



8. Wood, crops and animal waste is called

B 🔲 Biomass

9. Select renewable resource

Select 3 answers

B 🗌 Water

- A 🗌 Air D 🗌 Coal
 - E 🗌 Gas
- C 🗌 Wind F 🗌 Crude Oil
- 10. Geothermal energy is obtained and used by harnessing the heat from_____ Earth's surface.

A 🔲 Above B Below

2- RENEWABLE RESOURCES

- 1. A device that produces electricity from sunlight is a(n)_____
 - A Solar cell B Dry cell
- 2. hydroelectric plant uses alternative energy sources, such as_____, to generate electricity.
 - A 🗌 Wind

3.

B 🔲 Water



Which type of energy would best be used in an area with a lot of hot springs?

- A 🗌 hydroelectricity
- B 🔲 solar energy
- C 🗌 wind energy
- D 🔲 geothermal energy
- 4. Wind energy, water energy, and solar power are all examples of ______energy solutions.
 - A 🔲 Renewable or alternate resources
 - B 🔲 Non renewable
- 5. Which is not a source of renewable energy?
 - A 🗌 thermal energy C 🔲 solar energy
 - $B \square$ wind energy $D \square$ fossil fuels
- 6. Wind energy, harnessed by windmills, is one type of ______ energy source.
 - A 🔲 nonrenewable 🛛 B 🔲 renewable

- 7. Because it can be replaced quickly in nature, water is considered a(n)
 - A 🗌 nonrenewable 🛛 B 🔲 renewable
- 8. Which method is used to change plant and animal materials into usable fuel?
 - A 🗌 hydroelectricity
 - B 🔲 recycling
 - C 🔲 biomass conversion
 - D 🔲 solar collection





- A 🔲 BIOFUEL
- B 🔲 WIND ENERGY
- C 🔲 GEOTHERMAL ENERGY



- A 🔲 BIOFUEL
- B 🔲 WIND ENERGY
- C 🔲 GEOTHERMAL ENERGY

1-Non-Renewable resources

1.	Fossils fuels are		7.		used to generate I has been used to power	
	A 🔲 nonrenewable	eresources		steam locomot		
	B 🔲 renewable res	ources		A 🗌 Electricity	B 🗌 Sound energy	
	C 🔲 unlimited reso	ources				
	D 🔲 inexpensive re	esources	8.	natural resourc	tural gas, and soybeans are ces found in maryland. renewable resource?	
2.	How are fossil fuels	formed?			enewable resource:	
	A 🗌 Heat and pres	sure turn animal and into fuels.		A 🗌 Corn B 🔲 Crabs	C 🔲 Soybeans D 🔲 Natural Gas	
	B 🗌 Scientists colle them into fuel		9.	Nonrenewable	resources are resources	
	C 🗌 On the surface			that		
	rain turn fossi				ong to form that they e replaced quickly	
	between five and ten years to turn into fuels.				entiful in nature that they sed without worry	
3.	can be used for coo	d out of the ground and king and heating our			pollution to the ient, so they are the best se	
	homes A 🔲 Crude Oil	B 🔲 Natural Gas		D 🗌 cause so are never	much pollution that they ⁻ used	
4.	Which is not a fossil	fuel?	10.			
	A 🔲 Oil	C 🔲 Wood				
	B 🔲 Natural gas	D 🗌 Coal				
5.	A material that form organisms and is us energy is	ed from ancient ed today as a source of —				
	A 🔲 fossil fuel				newable natural	
	B 🔲 sediment			humans use co	n best describes how al?	
	C 🔲 alternative en	ergy resource		A 🗌 Humans	use coal for food.	
-				B 🗌 Humans	use coal for clothing.	
6.	Which is an example resource?	e of a nonrenewable			use coal for medicine.	
	A 🔲 Wind	C 🔲 Oil			use coal to produce	
	B 🔲 Sunlight	D 🔲 Water		electricity	<i>.</i>	

2-Non-Renewable resources

1.	Select	t all the natur	al res	ources		
	Select	t 5 answers				
	АП	Air	с 🗖	Tyre	E 🗖	Minerals
	в 🗖	Coal	D 🗖	Rocks	F 🗖	Plants
2.	Natur	al resource is	som	ething found	in	
۷.				-		
				le to humans		
	ВЦ	Nature and i	nvalua	able to humai	าร	
3.	Non r	enewable res	source	25		
	АП	Cannot be re	place	d quickly.		
	в 🗖	Can be repla	ced q	uickly.		
4.	What	is fossil fuels	?			
	Α□			nade from the	e rema	ains of ancient
		living organis	sms.			
	В 🗖	Made from g	as			
5.	Select	t fossil fuels.				
	Select	t 3 answers				
	АП	Coal	с 🗖	Petroleum	E 🗖	Wind
	В 🗖	Natural gas	D 🗖	Sun		
6.	(bioma sola hydropo 7%	nuclear 19%	natural 27%	6		ph, what is the

Based on the "Sources of Electricity" pie graph, what is the total percentage of nonrenewable resources that are used to generate electricity?

	A 🔲 86%	В 🔲 100%	C 🔲 67%	D 🔲 15%
--	---------	----------	---------	---------

Name:



Crude oil is

- A 🔲 Non renewable resources
- B 🔲 Renewable resource
- 8. Select non renewable resource

Select 4 answers

- A 🔲 petroleum
- B 🔲 natural gas
- C 🔲 coal
- D 🔲 uranium(nuclear gas)
- E 🔲 Plants
- F 🔲 Wind
- 9. Coal is used to power
 - A 🔲 Locomotives and steamboats











Natural gas is used mainly

- A 🔲 For cooking and heating homes
- B 🔲 For making electricity

1-IMPACT OF ENERGY USE

1.	 Fossil fuels used in transportation can cause problems. Which is a possible solution to these problems? A □ Use renewable energy sources in cars, such as biofuels and solar power. B □ Have car and truck drivers use more fossil fuels in their vehicles during rush hour traffic C □ Make hybrid cars, which use both gas and electricity, illegal. D □ Do not build fuel-efficient cars. 	6.	U.S. Energy Consumption Oil 40.3 Coal 22.6 Renewable 7.5 Nuclear 6.8 What percentage of the energy resources used by Americans comes from fossil fuels? A
2.	When an item is, it is made into a new product. A 🗌 Reduce B 🗌 Reuse C 🔲 Recycle	7.	Burning oil as fuel can release harmful substances called A pollution B Electricity
3.	Using something twice A 🗌 Reduce B 🔲 Reuse C 🔲 Recycle	8.	Our society uses up vast amounts of nonrenewable sources of energy. What should we do about energy sources in the future?
4. 5.	Lessening the amount of something that is used. A Reduce B Reuse C Recycle Which is not a source of renewable energy? A Geothermal energy B wind energy		 A □ Nothing; all energy sources are replaceable. B □ We will need to develop new ways of using oil. C □ We will need to develop more technology that relies on fossil fuels. D □ We will need to find ways to use
	C solar energy D fossil fuels	9.	 The overuse of fossil fuels leads to A flooding B pollution C good crops
		10.	Reducing the amount of resources we use, called, will allow resources to be saved for a later time A Consumption B conservation

Reduce, Reuse, and Recycle

Name:

					0				
		Reduce	Reuse	Recycle			Reduce	Reuse	Recycle
1.	I turn off the water when I brush my teeth.				7.	l put plastic in the recycling container instead of in the garbage.			
2.	I refill my water bottle instead of throwing it away.				8.	l put paper in the recycling container			
	1 () () () () () () () () () (instead of in the garbage.			
3.	l put cans in the recycling container								
	instead of in the garbage.				9.	l take shorter showers .			
	õ					A CONTRACTOR			
4.	l use a lunchbox instead of a paper bag.				10.	I walk to school instead of driving.			
5.	l turn off the lights when l leave the room.				11.	l write on the back of my paper instead of getting a new one.			
						toni Story			
6.	I put cardboard boxes in the recycling container instead of in the garbage.				12.	I donate my old clothes for others to use them.			

Tick the box to show which group each item is in

MC GRAW HILL QUESTIONS Date: Name:							
-ွှဲ- Select the correct option:							
1. Biomass conversion generates energy from							
	A Plants and animal waste	B Running water	C Sunlight	D Moving air			
2.	Fossil fuels are a	resource.					
	A 🗌 Renewable		^B Non renewable	resource			
3.	Wind,moving water,sc	blar energy,nuclear energ	gy and geothermal ener	rgy are all			
	A Non renewable resources	B Free energy sources	C Fossil fuels	D Renewable resources			
4.	Which is NOT a resou	rce that is burned to hea	at our homes and give u	s electricity.			
	A 📄 Natural gas	B Coal	C Plastic	D Oil			
5.	Where does geothermal energy comes from?						
	A 📄 Inside earth	B Sun	C Wind turbines	D Hydroelectric dams			
6.	Lily learned that fossil	fuels contain lots of ene	ergy.Why are fossils kno	wn as non renewable?			
	A It is essential for civilization.	B It cannot be replaced fast enough for future use.	C They are easily renewed.	D They are alternative energy sources.			
7.	Geothermal power pla	ants use from t	he earth interior to gen	erate power.			
	A 🗌 Heat	B Sound	C	Light			

8.	Which of the following are renewable resources? Select 2 answers						
	A Fossil fuels	B Hydroelectricity	C 🗌 Wind energy	D Copper			
9.	The act of saving ,prot	ecting or using resource	es wisely is called				
	A Reservation	^B Generation	C Conservation	D Production			
10.	^{10.} Energy from running water is used to generate						
	A Static Electricity	,	^B Hydroelectricit	y			
11.	^{11.} Which of the following is not an advantage to renewable energy?						
	A Solar power is abudant as a resource.	B Hydroelectric dams block river and streams.	C Biomass energy uses waste products to create energy.	D Wind energy can be generated day and night.			
12.	^{12.} Why is solar power a renewable energy resource?						
	A lt cannot be used up.	B It is a natural resource.	C It creates extra sunlight.	D It creates new sources of gasoline.			
13.	13. What is one effect of using COAL to meet our energy needs?						
	A 📄 It cleans the air.	B It will not run out.	C It doesnot disturb the wildlife.	D It pollutes the environment.			
14.	14. Which statement is NOT TRUE about Nuclear energy?						
	A Nuclear energy is created using fossil fuels.	B Nuclear energy is a non renewable resource.	C Nuclear energy is used to generate electricity.	D Nuclear energy waste may damage the environment.			