# شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية





# حل 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: 11:56:19 2024-01-13

# التواصل الاجتماعي بحسب الصف الرابع









# روابط مواد الصف الرابع على تلغرام

التربية الاسلامية اللغة العربية اللغة الانجليزية الرياضيات

المزيد من الملفات بحسب الصف الرابع والمادة علوم في الفصل الثاني		
أوراق عمل مراجعة وحدة energy of Types أنواع الطاقة		
أسئلة الامتحان النهائي - انسباير	2	
أسئلة الامتحان النهائي - بريدج	3	
مراجعة مترجمة وفق الهيكل الوزاري - انسباير	4	
حل أسئلة الامتحان النهائي - انسباير	5	



- A multiple choice quiz. Tick the boxes to record the answer

A child hitting the drum creates vibrations that produce \_\_\_\_\_



- Light energy
- Sound energy

When a person pluck string on a guitar,\_\_\_\_\_\_ energy is transferred.



- Sound
- Light

Which statement is true about LAMP?



- Changes heat to electrical energy
- Changes light to electrical energy
- Changes electrical to light and heat energy
- You cannot change energy

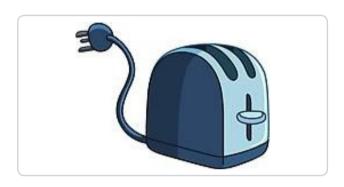
Nuclear reactions in sun release \_\_\_\_\_ Sound energy Nuclear energy A fire truck siren and flashing lights are examples of Select 2 answers Heat Light Sound Chemical To stop a drum producing sound, you need to Hit it harder Hit it softer Stop it from vibrating Place it in water D 7. Chemical Nuclear energy energy Light energy Electrical energy Е Sound Thermal energy energy



A Chemical energy	В	Nuclear energy
C Light energy	D	Electrical energy

Sound F Thermal energy

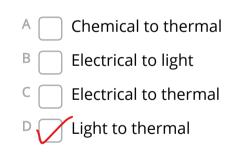
## 13. How energy changes in the TOASTER?



A	Chemical to thermal
В	Electrical to light
C	Electrical to thermal
D	Electrical to chemica

## 14. Sunlight heats up the sidewalk





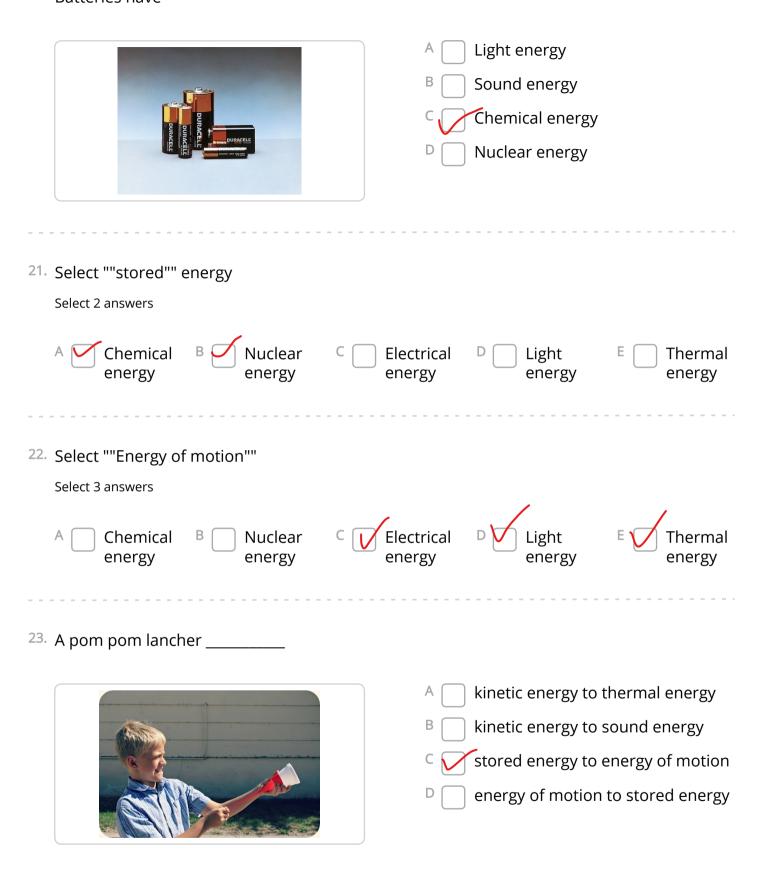
## 15. Battery powered flashlight



A Chemical to electrical
B Electrical to thermal
C Electrical to sound

6. The radio sitting on the table made the water in my glass move. Why?			
A Some types of energy cannot transfer through water.			
B The sound energy of the radio t	transferred to the water		
C The electrical energy transferre	d through the water		
D Only light can move through wa	ater		
17. Burning wood			
	A Chemical energy  B Light energy		
18. Plant use energy to make	food		
	A Light  B Sound  C Chemical  D Electrical		
19. Phones convert electrical energy into Select 3 answers			
9.41 Neuro terretor U	A		

#### 20. Batteries have



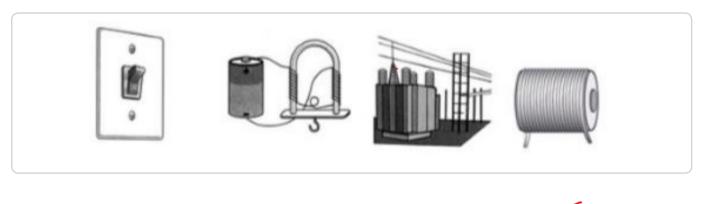
<sup>24.</sup> When a student plays guitar, it reaches the ear in form of			
		A Echoes  B Potential end C Thermal end D Sound wave	ergy
25. You are asked to des	ign a product that will c	hange "electrical energy	to heat energy".
A Hairdryer	B Alarm clock	C Ceiling fan	D Cell phone
26. You are watching fire	works. Fireworks give to	A Light, sound, B Light, sound, C Sound, electr	
27.		energy to co	rring heat ok food. Shows that rring sound ok food. Shows that rring electrical ok food. Shows that grills mechanical

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



A 🖊	Electrical to motion
В	Electrical to light
C	Electrical to heat

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



A Switch

B Electromagnet

C Transformer

Generator

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



A Energy transformations

B Energy exchange

<sup>C</sup> Energy being created

Energy being destroyed



- A multiple choice quiz. Tick the boxes to record the answer

When you pluck a string of guitar, it produce



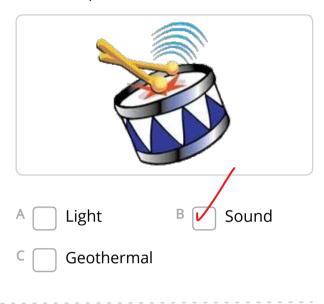
- Vibration
- Light

Back and forth motion of an object is called



- Vibration
- Light
- **Thermal**

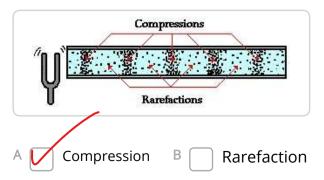
Vibration produce

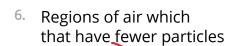


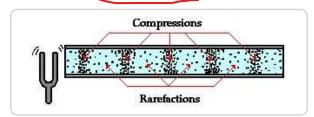
4. A wave that transfer energy through a medium and spreads in all direction is called

- Vibration Light wave Sound
- Regions of air which that have many particles

wave



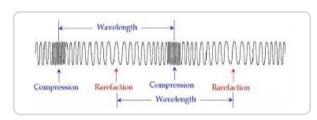




A Compression

Rarefaction

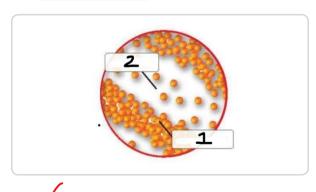
7. Sound wave is a series of \_\_\_\_\_ and \_\_\_\_\_



A Compression and rarefactions

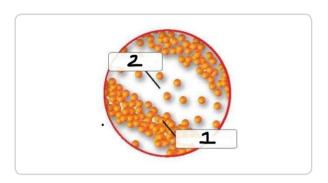
B Compression and depressions

8. 1 is \_\_\_\_\_



A Compression B Rarefaction

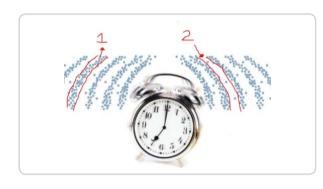
9. 2 is \_\_\_\_\_



A Compression

Rarefaction

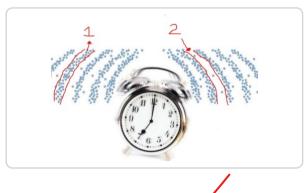
10. 1 is \_\_\_\_\_\_-



A Compression

B Rarefaction

11. 2 is \_\_\_\_\_\_-



A Compression

Rarefaction

12. 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  A Solids  B Liquid	A Space is too cold for sound waves to travel.  B There is too much matter to travel through in space.  Space is a vacuum with few particles to travel through.  D Energy cannot travel in space.
Gas  15. Sound waves travels in the form of	18. Sound travel through outer space.  A
A Longitudinal waves  B Transverse waves	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 to allow sound waves to travel.  There is no air in space, so there is no medium to carry sound waves.  It is very loud in space, so they can only hear each other through a radio.	20. A form of energy that allows you to see objects is  A Heat B Light  C Solar P Vision energy  21. Light travels as tiny of energy.  A Particles B Pressure

22. A pom-pom launcher	Thermal energy is
A transfers kinetic energy to thermal energy	the internal energy of an object due to the kinetic energy of its particles
transforms kinetic energy to sound energy	B the external energy of an object due to its potential energy
transforms stored energy to energy of motion  transfers energy of motion to stored energy	the internal energy of an object due to the stored energy of its particles  the external energy of an object due to its exposure to the Sun
23 cells are devices that use 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  Energy of motion
A Photovoltaic cells	D None of the above
Phonovoltaic  25. Identify the statement that correctly explains what happens when energy transfers in a system.	28. Solar cells convert light energy into energy  A Electrical B Sound energy
A About 75% of the energy is transferred, while the rest is destroyed.  B All of the energy is transferred in different amounts to different forms.	29.
Half of the energy is transferred in different amounts to different forms.	
<ul><li>Some of the energy gets transferred, while a portion is lost along the way.</li></ul>	A Solar cell B Battery

<sup>30.</sup> Solar	cells need	energy
Α	Sound energy	
В	Light energy	

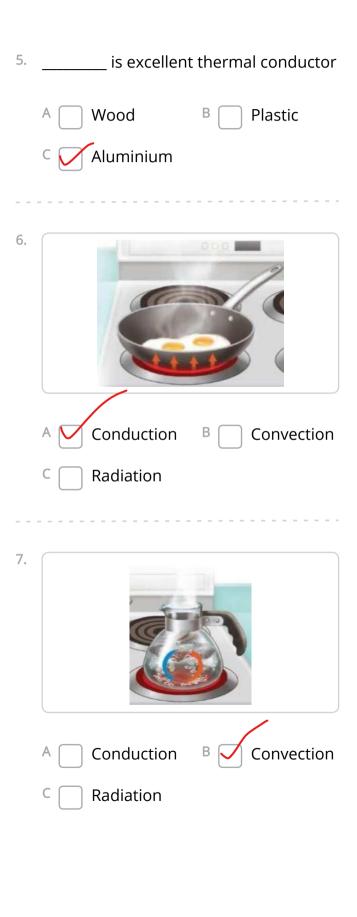


## - A multiple choice quiz. Tick the boxes to record the answer

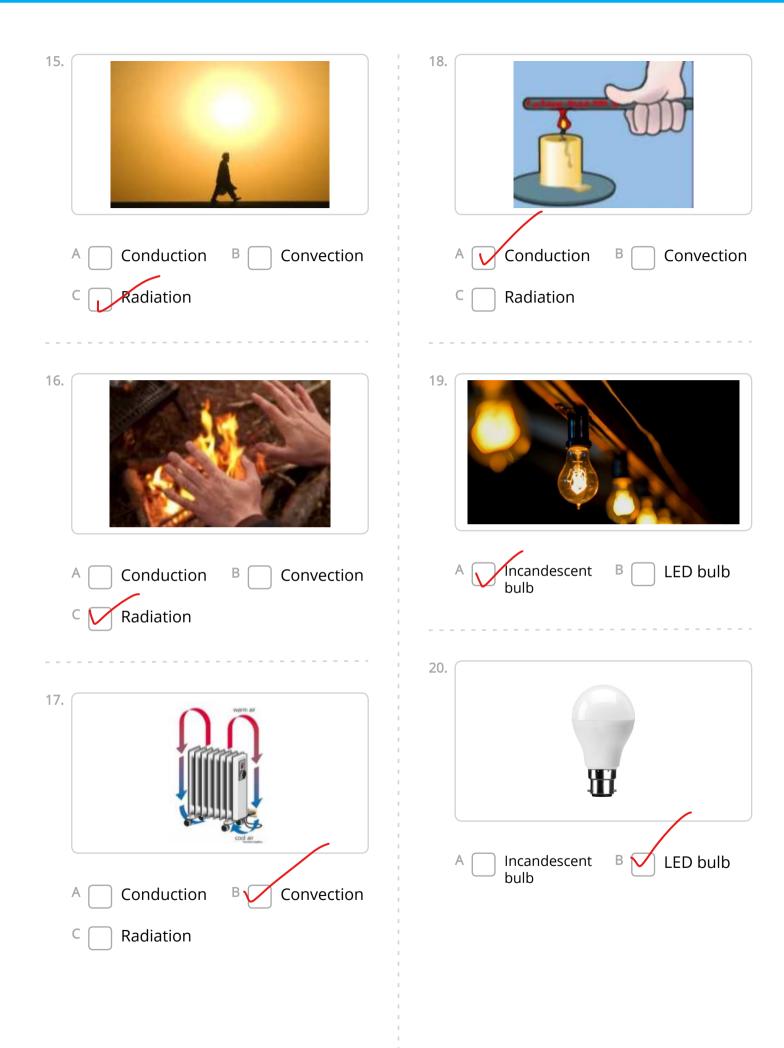
1.	Heat always transfers from to		
	A Warmer,Colder  B Colder,Warmer		
2.	Heat always transfers from to		
	A Hot,Cold B Cold,Hot		
3.	Atransfers heat easily.		
	A conductor B insulator		
4.	Danny did an experiment where he observed that a hot pan is best held by a dry oven mitt. When the oven mitt was wet, the hot pan almost burned Danny's hand. This is an example ofbeing transferred by heat.		

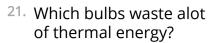
Energy

Water



8. You are watching fireworks on the 11. When heat transfers when fourth of July. When the fireworks two objects are touching are set off, they give off three forms of energy. Which three Conduction Convection forms of energy are given off? Radiation 12. When heat transfers without touching Conduction Convection Radiation light, sound, electrical light, sound, heat 13. When heat transfers sound, electrical, mechanical through liquid and gas heat, mechanical, electrical Convection Conduction Radiation 9. 14. Conduction Convection Radiation Conduction Convection 10. Radiation Conduction В Convection Radiation







Incandescent bulb



LED bulb

22. Which bulbs become very hot?



Incandescent bulb

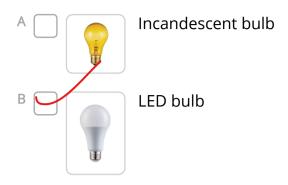


LED bulb

23. Which bulbs is good for saving electricity?



24. Which bulbs lasts upto 20 years and waste less energy?

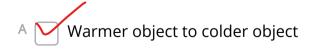


25. Incandescent lightbulb transfer most energy into





26. Heat is the movement of energy from \_\_\_\_\_



B Colder object to warmer object

# 27. LED bulb transfer most energy into

A Heat

Light Light

-----

28.

A The smoke shows that the grill is transferring heat energy to cook the food.

The smoke shows that the grill is transferring sound energy to cook the food.

The smoke shows that the grill is transferring electrical energy to cook the food.

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.



The transfer of heat energy from the pavement will cause your feet to feel hot.

The transfer of light energy from the pavement will cause your feet to feel hot.

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?



- The farmer thought the light would transfer thermal energy to the chicks' cage.

  The farmer thought that the chicks would be healthier if they were not in the dark.

  The farmer thought that the chicks would eat more to stay warm if they can see their food.
- D The farmer thought that the light would encourage the chicks to huddle together to keep themselves warm



# - A multiple choice quiz. Tick the boxes to record the answer

1.	Flow of electricity through a conductor		
	A Current B	Convection	
	C Conduction		
2.	Material through which electricity can flow easi		
	A Conductor B	Insulator	
3.	Material through which electricity cannot flow easily		
	A Conductor B	Insulator	
4.	Metal is		

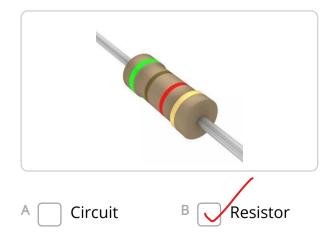
Conductor

Insulator

Plastic is \_\_\_\_\_ Insulator Conductor 6. A path along which electric current flows is called a(n) \_\_\_\_\_

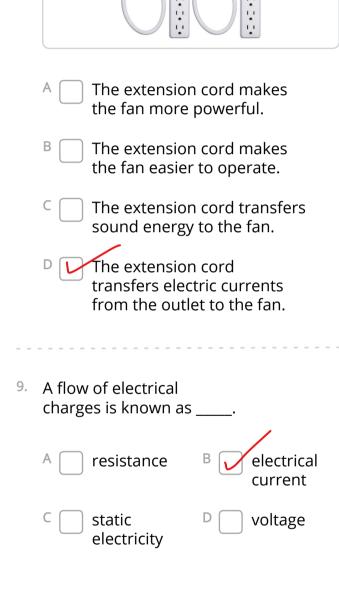
An object which resists the flow of energy

Circuit



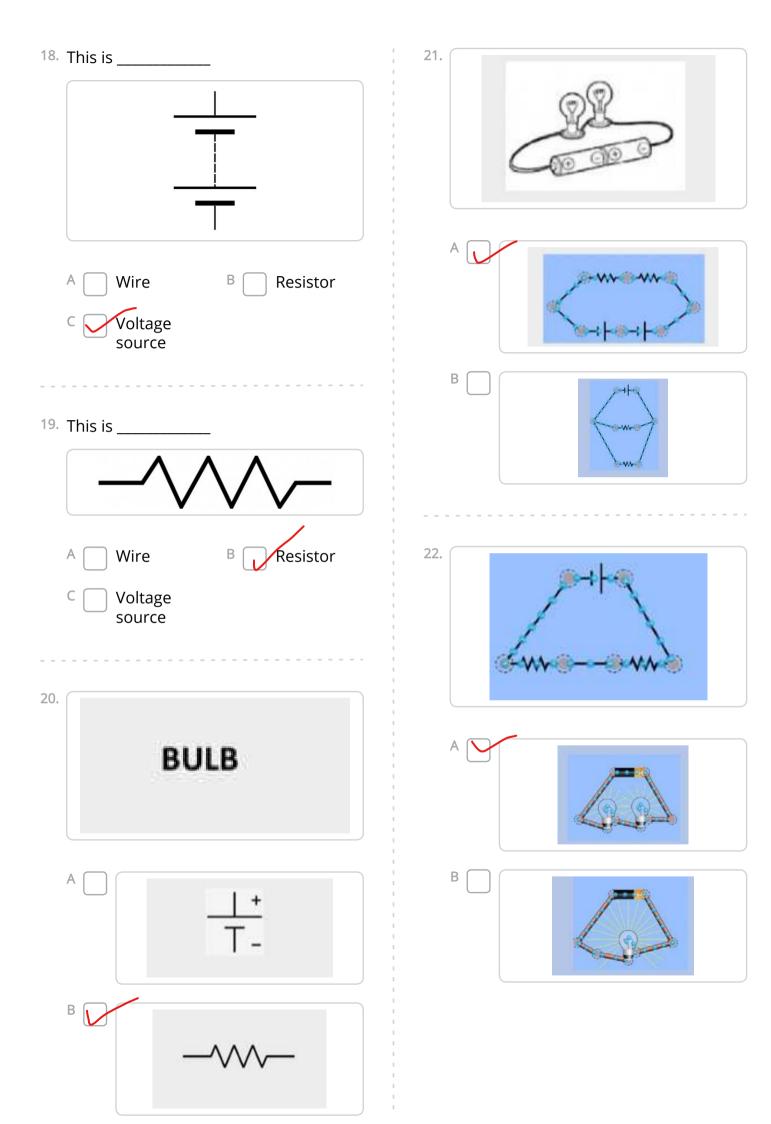
Resistor

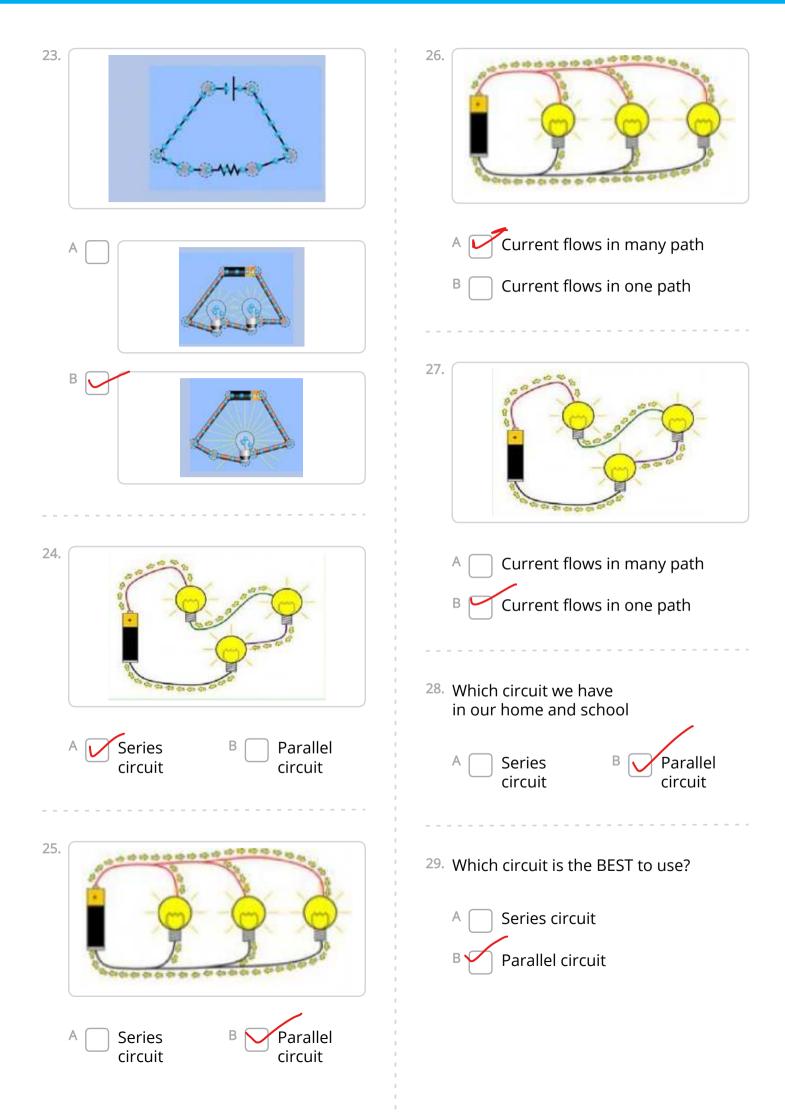
8. A fan is plugged into an extension cord. The extension cord is plugged into a wall outlet. How does the extension cord help the fan work?

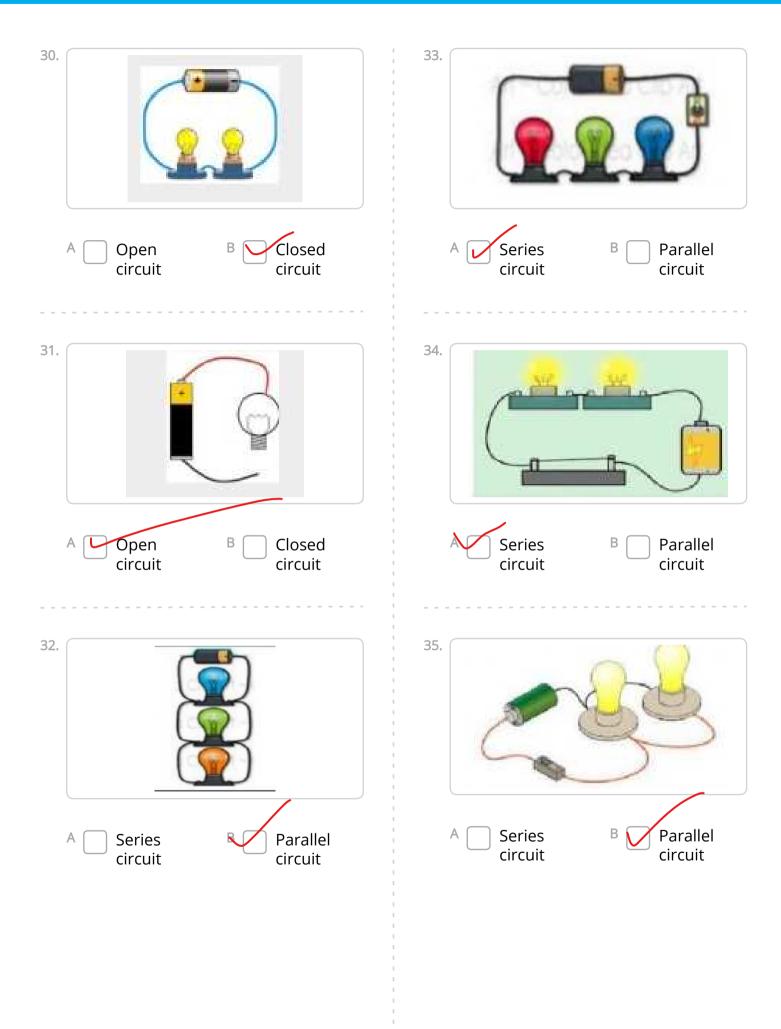


10.	An electric fence used to contain cattle works by transmitting energy through a conductor creating an electric							
	Electric Fence							
	A Light B S	Sound						
11.	In an electric circuit, a batter can act as a	у						
	A voltage source	conductor						
	c insulator	resistor						
12.	A conductor is a							
	A a material that increase number of charged page							
	material that increase the amount of electric	_						
	material through whice electricity flows easily	:h						
	material that stops the flow of energy							

13. A switch in a circuit	16. 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?				
<ul> <li>A acts as an insulator</li> <li>B absorbs electricity</li> <li>C allows or stops the flow of electricity</li> </ul>					
keeps the flow of electricity at a safe level	A Charged particles are being pulled from the air.  B Charged particles are being pulled from the floor.				
14. An object in an electrical circuit that resists the flow of energy is called	Charged particles are being destroyed.				
A a magnet  B a compass  C a voltage  D a resistor	Charged particles are being moved from one object to another.				
15. A student made the circuit . What does the student need to add to make the circuit work?	17.				
	A Wire B Resistor  C Voltage source				
A Another bulb Another battery  C Switch Another wire					



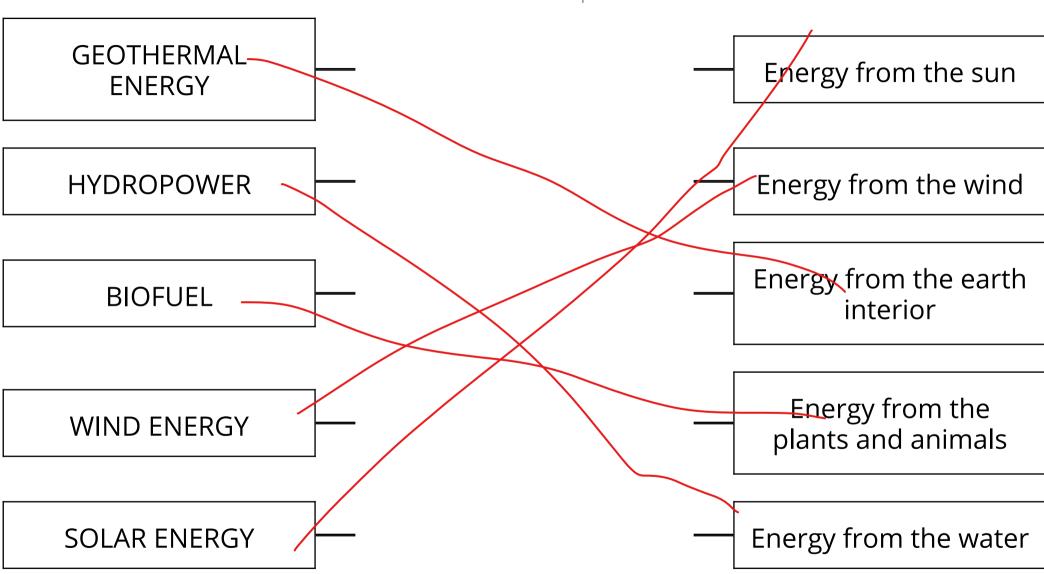




## Tick the box to show which group each item is in

		Renewable Resources	Non-Renewable Resources		Renewable Resources	Non-Renewable Resources
1.	Hydropower			5. Oil		
2.	Nuclear Energy			6. Solar		
3.	Coal			7. Wind		
4.	Natural Gas			8. Geothermal		

Draw a line to connect each pair of boxes



1.	Energy from the sun  A SOLAR ENERGY  B WIND ENERGY  C GEOTHERMAL ENI  D HYDROPOWER  Energy from the wind  A BIOFUEL	ERGY C □ HYDROPOWER	6.	A HYDROPOWER	D □ SOLAR
3.	B SOLAR ENERGY  Energy from the earth ir	D WIND ENERGY		B GEOTHERMAL C WIND	E 🗌 BIOFUEL
	A ☐ HYDROPOWER  B ☑ GEOTHERMAL ENI  C ☐ WIND ENERGY  D ☐ SOLAR ENERGY		7.		
4.	Energy from the plants a  A □ SOLAR ENERGY  B □ GEOTHERMAL ENI  C □ WIND ENERGY  D □ BIOFUEL			A  HYDROPOWER B GEOTHERMAL C WIND	
5.	Energy from the water  A ☐ GEOTHERMAL ENI  B ☐ SOLAR ENERGY	ERGY	8.	Wood,crops and anima A ☐ Airmass	al waste is called B ☑ Biomass
	C ☐ BIOFUEL  D ☐ HYDROPOWER		9.	Select renewable resort Select 3 answers A Air B Water C Wind	urce  D
			10.	Geothermal energy is harnessing the heat from surface.  A   Above	

#### 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

B- Water

3.



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 wind energy D 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 \( \square\) hydroelectricity

B ☐ recycling

C biomass conversion

D solar collection



A 🛮 BIOFUEL

B WIND ENERGY

C ☐ GEOTHERMAL ENERGY

10.



A ☐ BIOFUEL

B WIND ENERGY

C GEOTHERMAL ENERGY

1.	Fossils fuels are	7.	Coal is mainly used to generateand has been used to power steam locomotives.		
	A nonrenewable resources				
	B  renewable resources		A Electricity B Sound energy		
	C unlimited resources		,		
	D  inexpensive resources	8.	Corn, crabs, natural gas, and soybeans are natural resources found in maryland. Which is a nonrenewable resource?		
2.	How are fossil fuels formed?		Which is a nomenewable resource:		
	A Heat and pressure turn animal and plant remains into fuels.		A Corn C Soybeans  B Crabs D Natural Gas		
	B  Scientists collect fossils and turn them into fuels.	9.	Nonrenewable resources are resources that  A		
	C  On the surface of Earth, wind and				
	rain turn fossils into fuels.  D   Fossils sink into swamps and take				
	between five and ten years to turn into fuels.				
3.	is pumped out of the ground and can be used for cooking and heating our				
	homes A ☐ Crude Oil B ☐ Natural Gas		D  cause so much pollution that they are never used		
4.	Which is not a fossil fuel?	10.			
	A ☐ Oil C ☐ Wood				
	B Natural gas D Coal				
5.	A material that formed from ancient organisms and is used today as a source of energy is				
	A fossil fuel		Coal is a nonrenewable natural		
	B  sediment		resource.Which best describes how humans use coal?		
	C  alternative energy resource		A   Humans use coal for food.		
6.	Which is an example of a nonrenewable		B   Humans use coal for clothing.		
٥.	resource?		C  Humans use coal for medicine.		
	A 🗌 Wind C 💆 Oil		D Humans use coal to produce		
	B ☐ Sunlight D ☐ Water		electricity.		

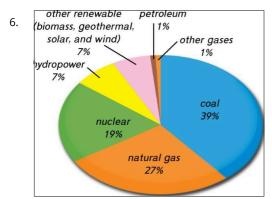
1. Select all the natural resources

Select 5 answers

- A ☑ Air C ☐ Tyre E ☑ Minerals
- B Coal D Rocks F Plants
- 2. Natural resource is something found in \_\_\_\_\_\_
  - A Nature and valuable to humans
  - B Nature and invaluable to humans
- 3. Non renewable resources
  - A Cannot be replaced quickly.
  - B Can be replaced quickly.
- 4. What is fossil fuels?
  - A Source of energy made from the remains of ancient living organisms.
  - B Made from gas
- 5. Select fossil fuels.

Select 3 answers

- A ☐ Coal C ☐ Petroleum E ☐ Wind
- B ☐ Natural gas D ☐ Sun



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

A ■ 86% B ■ 100% C ■ 67% D ■ 15%

7.



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



B 🔲 Car





Natural gas is used mainly

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

1.	Fossil fuels used in transportation can cause problems. Which is a possible solution to these problems?	6.	U.S. Energy Consumption			
	A Use renewable energy sources in cars, such as biofuels and solar power.		Coal 22.6			
	B  Have car and truck drivers use more fossil fuels in their vehicles during rush hour traffic		What percentage of the energy resources used by Americans comes from fossil fuels?			
	C Make hybrid cars, which use both gas and electricity, illegal.					
	D Do not build fuel-efficient cars.		A ☐ 7.5 % C 1 85.2 % B ☐ 40.3 % D ☐ 93.2 %			
2.	When an item is, it is made		В Ц 40.3% Д В 93.2%			
	into a new product.	7.	Burning oil as fuel can release harmful substances called			
	A Reduce B Reuse C Recycle		A pollution B Electricity			
3.	Using something twice	8.	Our society uses up vast amounts of			
	A Reduce B Reuse C Recycle	0.	nonrenewable sources of energy. What should we do about energy sources in the future?			
4.	Lessening the amount of something that is used.  A Reduce B Reuse C Recycle		A Nothing; all energy sources are replaceable.			
	•		B  We will need to develop new ways of using oil.			
5.	Which is not a source of renewable energy?  A   Geothermal energy		C We will need to develop more technology that relies on fossil fuels.			
	B  wind energy		D We will need to find ways to use			
	C solar energy		renewable sources of energy.			
	D fossil fuels	9.	The overuse of fossil fuels leads to			
			A  flooding  C  fertile soil			
			B pollution D 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			

Tick the box to show which group each item is in

		Reduce	Reuse	Recycle			Reduce	Reuse	Recycle
1.	I turn off the water when I brush my teeth.				the re conta instea	plastic in ecycling ainer ad of in arbage.			
2.	I refill my water bottle instead of throwing it away.				the re conta	paper in ecycling ainer ad of in			
3.	I put cans in the recycling container					arbage.			
	instead of in the garbage.				9. I take show	e shorter vers .			
4.	I use a lunchbox instead of a paper bag.				10. I walk instea drivin				
	Faper sag.				11. I write	e on the		$\overline{\Box}$	
5.	I turn off the lights when I leave the room.				back papei	of my r instead tting a new			
6	Lout cardboard				Stop	use ring es		/	
6.	I put cardboard boxes in the recycling container instead of in the garbage.				clothe	ate my old es for rs to use			
					DOWN				

-`\

Select the correct option:

Biomass conversion generates energy from\_\_\_\_\_\_

A Plants and animal waste

B Running water

Sunlight

Moving air

Fossil fuels are a resource.

Renewable

B Non renewable resource

Wind,moving water,solar energy,nuclear energy and geothermal energy are all \_

A Non renewable resources

Free energy sources

Fossil fuels

Renewable resources

4. Which is NOT a resource that is burned to heat our homes and give us electricity.

A Natural gas

Coal Coal

Plastic

Oil

5. Where does geothermal energy comes from?

A 🖊

Inside earth

Sur Sur

Wind turbines

Hydroelectric dams

6. Lily learned that fossil fuels contain lots of energy. Why are fossils known as non renewable?

A It is essential for civilization

It cannot be replaced fast enough for future use.

They are easily renewed.

They are alternative energy sources.

7. Geothermal power plants use \_\_\_\_\_\_ from the earth interior to generate 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	Conservation	D Production		
10.	Energy from running v	water is used to generat	e			
	A Static Electricity	<i>'</i>	B Hydroelectricity	У		
11.	Which of the following	g is not an advantage to	renewable energy?			
	A Solar power is abudant as a resource.	B Hydroelectric dams block river and streams.	Biomass energy uses waste products to create energy.	D Wind energy can be generated day and night.		
12.	Why is solar power a r	renewable energy resou	rce?			
	It cannot be used up.	B lt is a natural resource.	C It creates extra sunlight.	D It creates new sources of gasoline.		
13.	What is one effect of ι	using COAL to meet our	energy needs?			
	A lt cleans the air.	B lt will not run out.	C It doesnot disturb the wildlife.	D It pollutes the environment.		
14.	Which statement is No	OT TRUE about Nuclear	energy?			
	A Nuclear energy is created using fossil fuels.	B Nuclear energy is a non renewable resource.	Nuclear energy is used to generate electricity.	Nuclear energy waste may damage the environment.		