Name

_ Date __

Excellent Electricity

The term electricity is used to describe types of energy. Electricity is the movement of charged particles, usually called electrons, from one place to another. Electricity can occur naturally or can be created by humans. Static electricity is a type of electricity that occurs naturally. Have you ever taken clothes out of the dryer and noticed that they are stuck together, or do you hear a crackling sound? This is static electricity. When clothes are rubbed together in the dryer, there is a buildup of **charges** and static electricity occurs. Dragging your feet across a carpeted floor can also create static electricity. If you felt a shock, it was most likely the movement of electrons from the carpet to your socks or static electricity.

Electricity is also created by humans. Humans use electricity to generate power for lights, appliances, computers, and much more. When creating electricity, humans need to create a circuit or path for the electricity to follow. There are several kinds of circuits that can be created. A series circuit has only one path for a current to follow. You may have seen a tree decorated with lights made of a series circuit. If one light is burned out, all of the lights on the string are out. Because of this, series circuits are not always convenient to use. Therefore, a parallel circuit may be used for electricity. A parallel circuit has more than one path to follow. If part of the circuit, or path, is blocked, the current can take a different path. Parallel

Series Circuit



In this series circuit, electric current flows from the battery to a wire, to a light bulb, to another wire, and back to the battery. If any piece of the device is removed, the current will be broken and the bulb will not be lit.

Parallel Circuit



In this parallel circuit, part of the path is missing (the other light bulb). However, the current is able to take another path, and the light bulb is able to still work.

circuits are used in homes, schools, and businesses. By using parallel circuits, people are able to plug in devices and appliances and turn them

on and off at different times.

Glossary charges – the amount of electricity which can either be positive or negative current – the flow of electricity

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Name _

Middletown Observer

Your Source for Hometown News

Boy Creates Electromagnet

A student at Carter Elementary won the science fair with his electromagnet. Both magnets and electric charges can create forces that push or pull. Phillip Franks used a coil of wire wrapped around an iron nail to make an electromagnet. Each end of the wire was connected to a battery. The nail then became a temporary magnet and paperclips were pulled to it. Judges of the science fair were impressed because an iron nail is not typically a magnet. Because the nail had an electric current running through it though, it became a magnet. Objects that were attracted to any typical magnet were then attracted to the nail.



May 17, 2017

Date

Is Your Home Safe? What You Need to Know About Conductors and Insulators

Electricity is the movement of charged particles from one place to another. People use electricity in their lives daily, but many do not realize electricity can be dangerous. Conductors are materials that electricity can move through easily. Metals, such as copper, are good conductors and are often used to carry electricity. Because metal is a good conductor, wires carrying electricity are made of different types of metal. The wires are often covered by materials such as plastic or rubber. Plastic and rubber are insulators. Insulators slow or resist the flow of electricity. If you see wires that are not covered by an insulator, they could be very dangerous to touch and may cause fires if not properly cared for. Name ____

Date

Checking Your Understanding

Directions: Use the information in the two passages "Excellent Electricity" and "Middletown Observer" to answer the following questions.

- I. Using the information from "Excellent Electricity" which of the following choices does NOT describe static electricity?
- a. Static electricity occurs naturally.
- Dragging your feet across the carpeted floor can create static electricity.
- c. Static electricity must use a series circuit.
- d. A crackling sound can be a sign of static electricity.

2. Which of the following choices BEST describes the main idea of the "Middletown Observer"?

- a. The newspaper was published on May 17, 2017.
- b. Electricity is the movement of charged particles.
- c. The weather will be rainy on Saturday, but sunny all day on Sunday.
- d. Newspaper articles discuss how an electromagnet is made and how knowing about conductors and insulators can keep people safe.

3. What text feature in "Excellent Electricity" can help readers find the meaning of unknown words?

- a. title
- b. captions
- c. diagram
- d. glossary

4. Which of the following choices is information that can be found in both passages?

- a. Electricity is the movement of charged particles from one place to another.
- b. Series circuits are not always convenient to use.
- c. Conductors are materials that electricity can move through easily.
- d. A nail can become a temporary magnet using a wire and battery.

5. According to the diagram in the passage "Excellent Electricity" how is the light bulb in the parallel circuit still able to work even though part of the path is missing?

- a. The current is broken and the light bulb is not actually able to work anymore.
- b. The electricity is able to take another path because there are more wires, which allows the light bulb to continue to work.
- c. The light bulb uses static electricity to light up.
- d. The light bulb uses solar power, not battery power, to work.

6. According to the newspaper article, which of the following choices is NOT a material Phillip Franks used to create an electromagnet?

- a. battery
- b. nail
- c. wire
- d. light bulb

7. In the "Middletown Observer" the author titled one of the articles: Is Your Home Safe? What You

Need to Know About

Conductors and Insulators. What was MOST LIKELY the purpose of writing that article?

- To teach readers the importance of knowing about conductors and insulators so they can be safe when using electricity in their homes.
- b. To persuade readers to only buy lamps whose wires have plastic or rubber coverings to protect them from being shocked.
- c. To entertain readers with a funny story about static electricity.
- d. To warn readers to turn off their electric devices when bad weather comes into town.

8. According to the text, which of the following choices does NOT describe something that uses electricity?

- a. lights
- b. appliances
- c. computers
- d. pillows

9. Which choice BEST defines the term <u>charges</u> as it is used in the nonfiction text?

- a. The amount of money someone owes after purchasing a product or a service.
- b. The amount of electricity something has.
- An act someone is accused of doing that is usually against the law.
- d. A computer program used to predict the weather.

10. How are series circuits and parallel circuits different?

- a. Only one type of circuit is used to create electricity.
- b. Only parallel circuits can be used to make a light bulb shine.
- c. Only parallel circuits can continue to work if a part is missing or blocked because there is more than one path for the current to follow.
- d. Only series circuits use multiple paths for electricity to travel.



Name		Date	
Date Excellent Electricity Written Response Directions: Follow the steps in the chart to answer the written response question. Be sure to LOOK back in the passage to gather evidence.			
í Start ì	Give `	í Explain ì	Τell ``
your answer with words from the question. Why did the autho text? Use evidence	text evidence. The text says The author wrote In paragraph , it says r most likely include from the text to s	your thinking. I know this because This makes me think This is important because	 more! For example, For instance, The text also says According to the text, Based on what I read
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Name		Date	
	Middletown Observer		
Directions: Follow the s LOOK back in the passo	teps in the chart to answ age to gather evidence.	er the written response	question. Be sure to
í Start ì	Give	Éxplain	í Tell ì
your answer with words from the question.	text evidence. The text says The author wrote In paragraph , it says	your thinking. I I know this because This makes me think This is important because	 more! For example, For instance, The text also says According to the text, Based on what I read
your answer. 			
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Name	Date
Excellent Ele	ectricity and Middletown Observer
Directions : Create a fictional by an insulator. Use informat fix the problem.	narrative about a character who finds wiring not covered on from both passages to discuss what characters may do to
Be sure your narrative includ an introductory sentence the reading the names of the characte the setting dialogue that holes readers	es: nat hooks your readers and makes them excited to keep -s
Correct punctuation for di	alogue
sentences to describe the contract capitalization and a	ctions of your characters
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Name	Date
Middletown (Persuasive	Observer Writing
Directions: Use the information from the "Middle that knowing about electricity is important to kee text to help support your reasons.	etown Observer" to convince your reader ep people safe. Use information from the
Be sure your persuasive piece includes: an introductory sentence a clear opinion at least three reasons to support your opinion evidence from the text to help support your r a concluding sentence correct capitalization and punctuation	easoning
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Name	Date
Excellent I Informatio	Electricity nal Writing
Directions : Use the information from "Excelle types of circuits.	nt Electricity" to describe two different
Be sure your informational piece includes: an introductory sentence facts a text feature such as headings, bold words a concluding sentence correct capitalization and punctuation	s, diagram, caption, glossary
	© The Tulip Teacher 2017

Name Date		
Dire they the s have so ch	Excellent Electricity and Main Idea Cu ctions: Boxes and bullets are a way for rea read. The box lists the main idea and bullet supporting details and glue them to match the three supporting details from the text. Yo noose the ones that BEST support the main	Middletown Observer at and Sort ders to organize the main idea of what is provide supporting details. Cut and sort ne correct main idea. Each main idea will ou will NOT use all of the supporting details idea.
	Excellent Electricity	Middletown Observer
E n e v p	lectricity can be created aturally, like static electricity, or by humans which may use series or arallel circuits.	Newspaper articles discuss how an electromagnet is made and how knowing about conductors and insulators can keep people safe.
	Judges of the science fair were impressed	Phillip Franks used a coil of wire wrapped
0 2	because an iron nail is not typically a magnet.	around an iron nail to make an electromagnet.
2	A parallel circuit has more than one path to follow.	A series circuit has only one path for a current to follow.
her 201	Conductors are materials that electricity can move through easily.	Static electricity is a type of electricity that occurs naturally
The Tulip Teac	If you see wires that are not covered by an insulator, they could be very dangerous to touch and may cause fires if not properly cared for.	Dragging your feet across a carpeted floor can also create static electricity.

Name		Date
Excellent Electricity and Middletown Observer		
Directions : Context cl mean. To look for hin <u>parts</u> they know. Find	ues are <u>HINTS</u> from the text the reader ts, readers should use <u>pictures, definitio</u> I the meaning of the words listed below k	can use to decide what words <u>ns, synonyms, antonyms</u> , or <u>word</u> by using clues from both passages.
Unknown Words	Clues From the Text	I think this word means
naturally		
charges		
generate		
electromagnet		
temporary		
insulators		- 2017
conductor		© The Tulip Teacher

Name	Date	
Excellent Electricity and Middletown Observer		
Directions: Read the statements. Write a s sure to use correct c	statements below. Find the BEST evidence from the text to support the hort paragraph to support the sentences with evidence from the text. Be apitalization and punctuation.	
 I know For ex For ins The tex The au This is In pare 	Evidence from the Text Sentence Starters: this because ample, tance, ct says thor wrote important because agraph it says	
I. Parallel circu	its are usually more convenient.	
2. The science f	'air judaes thought Phillip Franks' project was the best.	
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