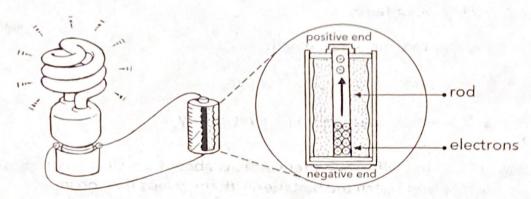


Weekly Question \_\_\_\_\_

# How does a battery make electricity?

A battery has two ends, usually called "positive" and "negative." Inside the battery there is a liquid or a paste. The chemicals in the paste create electricity. The rod in the battery conducts electrons from the negative end to the positive end. But the electrons won't flow through the rod unless the positive and negative ends of the battery are connected to a circuit.





- A. Write the word that completes each sentence.
  - 1. On a battery, the \_\_\_\_\_ end is opposite the negative end.
  - 2. The paste inside a battery creates \_\_\_\_\_
  - 3. The electricity inside a battery can flow only if both ends are connected to a \_\_\_\_\_\_\_.
- B. Write three things you've used recently that have batteries.
  - 1. \_\_\_\_\_\_ 2. \_\_\_\_ 3. \_\_\_\_



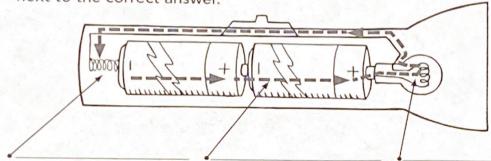
#### Weekly Question -

# How does a battery make electricity?

Remember that a circuit needs both a source and a conductor in order for electricity to flow. Inside a flashlight there are wires, or conductors, that carry electricity to the light bulb. The battery is the electrical source. When the positive and negative ends of the battery are connected to the wires, they complete the circuit. The battery creates an electric current that flows to the bulb, and the flashlight shines!



A. Look at the diagram below. Label the source, the conductor, and the bulb. Then read each question and check the box next to the correct answer.



- 1. Which way does electricity flow through the battery to the bulb?
  - from negative to positive
- from positive to negative
- 2. Which of these creates electricity?
  - The switch
- The light bulb
- the battery
- B. Why does it make more sense for a flashlight to have a battery than a cord that plugs into a wall? Explain your answer.



Weekly Question -

# How does a battery make electricity?

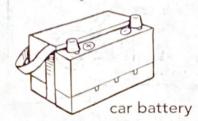
The chemical paste in many batteries stops making electricity after a while. But some batteries can be recharged. When electricity moves back into the battery, it changes the battery's chemicals so that they can make their own electricity again.

One kind of battery that can be recharged is a car battery. A part in the car recharges the battery while the car runs. Other batteries can be recharged by using a tool called a charger. The charger plugs into an electrical outlet in your home. Electricity flows through the charger and into the battery.



Vocabulary

recharge to charge again





battery charger

#### A. Write true or false.

- 1. All batteries can be recharged.
- 2. Some batteries use the electricity in your home to recharge.
- 3. Rechargeable batteries have chemicals in them.
- B. Telephones, music players, laptop computers, and many cameras use rechargeable batteries. Explain why using them in these devices might be better than using regular batteries.



#### Weekly Question -

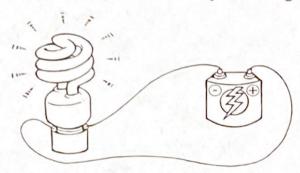
## How does a battery make electricity?

A. Use words from the box to complete the sentences.

battery negative positive recharged



- 1. A \_\_\_\_\_ has chemicals that create electricity.
- 2. Car batteries can be \_\_\_\_\_
- 3. Batteries have a \_\_\_\_\_ and a \_\_\_\_ end
- B. Circle the electrical source for this circuit. Then draw arrows to show which way the electricity is flowing.



- C. Write true or false.
  - 1. A battery makes static electricity.
  - 2. All batteries can be recharged.
  - 3. In circuits, batteries are the electrical source.
  - 4. In batteries, electricity flows from the negative end to the positive end.



### Comprehension -

## **All About Electricity**

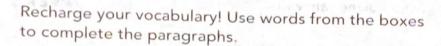


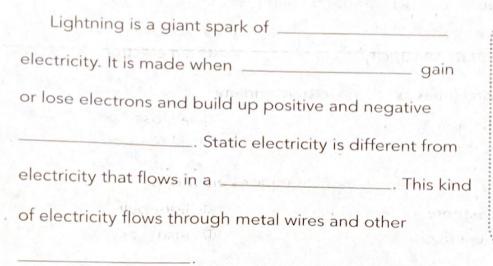
th	e b	ubble next to the correct answer.		WE		
1.	Ele	ectricity moves through a path calle	ed ,	. , . ,		
	A	a source	(C)	a circuit		
	<b>B</b>	static electricity	(D)	an electron		
2.	A	circuit needs to be complete	e.			
	A	a source	0	a closed path		
	B	a conductor	(D)	all of these		
3.	. The inside a flashlight makes electricity.					
	A	battery	©	light bulb		
	B	conductor	(D)	insulator		
4.	Ru	bber is an example of				
	A	a conductor	(C)	a circuit		
	<b>B</b>	an insulator	(D)	a switch		
5.	Lig	htning is an example of				
	A	an electric current	(C)	static electricity		
	<b>B</b>	protons	(D)	a conductor		
6.	The	The parts of an atom with a negative charge are				
	A	electrons	(C)	protons		
	(B)	switches	(D)	liahtnina		



#### Vocabulary -

### **Electric Words**







current
static
charges
conductors
atoms
insulator

Do you know how a flashlight works? Flashlights use batteries, which are \_\_\_\_\_\_\_ of electricity that are easy to carry. Electricity from the \_\_\_\_\_\_ flows through wires to the light bulb in a path called a \_\_\_\_\_\_. The button on a flashlight is a \_\_\_\_\_\_. It completes or breaks the circuit, turning the flashlight on and off.

switch
outlets
sources
electrons
circuit



### Visual Literacy -

## The Path of Electricity

Look at the pictures. Complete a caption for each one, using a phrase from the box. Then number the pictures in the correct order to show how electricity travels.

- huge amounts of electrical energy
- insulated cord to the computer
- · carry electricity to the outlets
- · from the power plant to a house



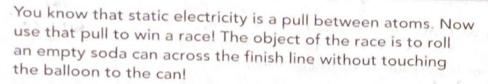
#### **How Electricity Travels**

Wires in the walls	_
A power plant uses machines to make	_
Electricity flows through the	
Power lines carry electrical energy	3.0



Hands-on Activity .

### Charged-up Relay





#### What You Need

- large, open space with a flat surface
- at least 2 teams of 5 players
- inflated balloons for each team
- one empty metal soda or juice can for each team



- 1. Set up a starting line and a finish line. Place the empty can on its side at the starting line. Have the first person on each team "charge up" the balloon by rubbing it on his or her clothes.
- 2. At the signal, the first person on each team uses the balloon to pull the can across the finish line. However, if the balloon touches the can, the player must return to the starting line and start over. If the balloon loses its charge at any time, the player should rub it to charge it again.
- 3. When the player reaches the finish line, he or she picks up the can and runs back to the start. The next team member repeats the process. The first team to have the last player cross the finish line wins!

#### What Did You Discover?

1. What did you do to make the balloon gain electrons?

2. What made the soda can roll?

3. Who won the race?