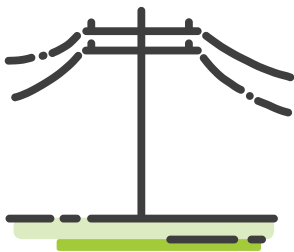


ENERGY TERMS QUIZ

Can you match the definitions below with the correct energy terms?
Use the word bank for clues!

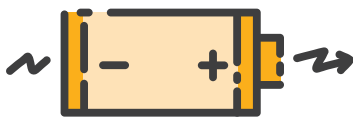


1. These energy sources, like coal, oil and natural gas, were formed from the remains of ancient plants and animals buried underground and are used to generate electricity.



2. This is the network of poles and power lines that sends electricity from where it's generated to homes and businesses all over the county.

3. These energy sources include natural energy from the sun, wind and water and are used to generate electricity.



4. This is the flow of electrically charged particles like electrons within a conductor or circuit.

5. This is the act of using less energy.



Word Bank

CURRENT

ELECTRIC GRID

FOSSIL FUELS

RENEWABLE RESOURCES

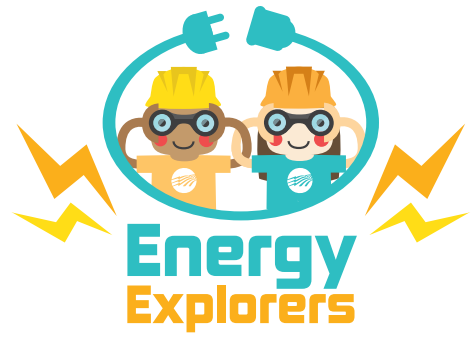
ENERGY CONSERVATION



AMERICA'S ELECTRIC COOPERATIVES

Answer Key: 1. fossil fuels 2. electric grid 3. renewable resources 4. current 5. energy conservation

ENERGY SAVINGS WORD SEARCH



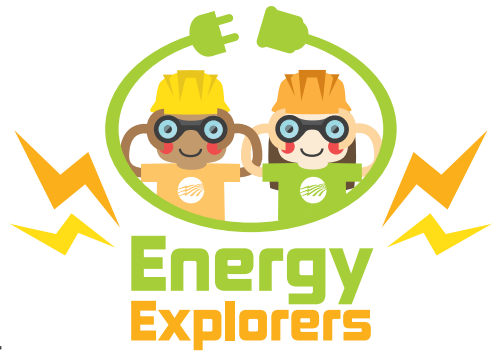
Did you know there are many ways you can help save energy in your home?

Read the energy efficiency tips below and circle the **bolded** words in the puzzle.

O E S P W F W A T E R S Y E S
A L L R S A E T D E I A L S R
T E X K E J T O G H C E P X E
L C O O G G Z E N X C N M N W
B T B F M X R R R T B X Q K O
G R I S M M R A R H C L I D H
X I S Y K Y E O H X E V A F S
I C B X X I N Y B C N A P J I
A I G Y Z I H F H X C F T Y E
U T U N C W U Y X Z O M B E S
U Y Z S E M F P O R V N V T R
R E F R I G E R A T O R H E Q
E V J M Q S D M D F V G N Y L
W M E O F P N T K W I H X Q I
G N I H T O L C R L S S B R D

- Turn off **lights** any time you leave a room.
- Keep the **refrigerator** door closed to save energy.
- Wash **clothing** in cold water to reduce the load on your **water heater**.
- Unplug items that consume **electricity** even when they're not in use, like cell phone **chargers** and coffee makers. These are known as "phantom load" **electronics**.
- Take **showers** instead of baths - showers require less **water** use.

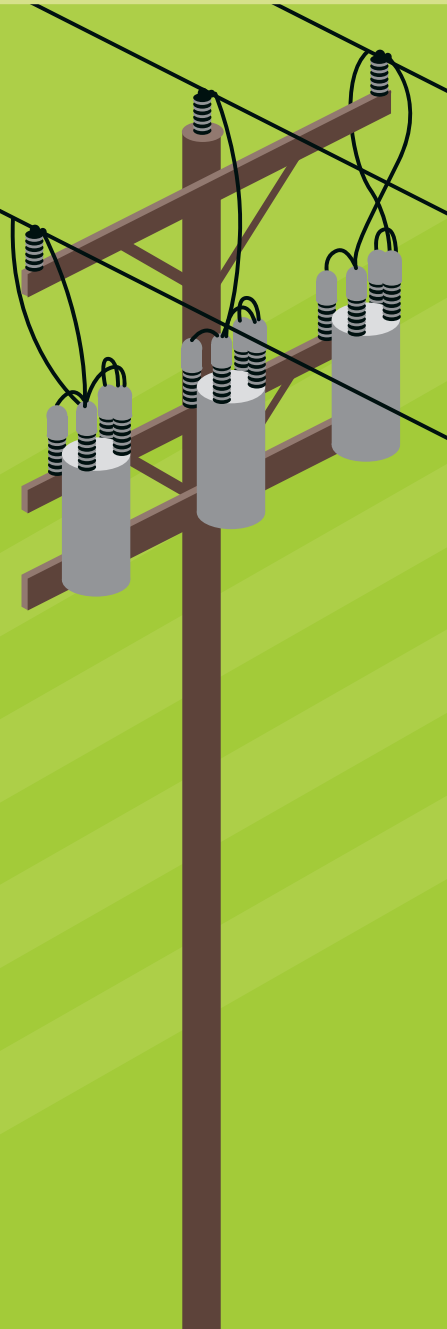
ELECTRICAL EQUIPMENT WORD SCRAMBLE



Electric co-ops use a variety of equipment to make sure you and your family receive reliable electricity. Can you unscramble the equipment terms below?

Use the provided clues for help, and double check your work in the answer key below.

- 1. ORNSTAMREFR** _____
These can look like large metal cans on top of utility poles or big green boxes on the ground. They are used to reduce the voltage of electricity, making it safe for use in your home.
- 2. OERPW NSLIE** _____
These can hang overhead or be placed underground. They carry electricity from where it's generated to homes and businesses in your community.
- 3. OUTASBSNTI** _____
This is an electrical facility that contains equipment for controlling the flow of electricity.
- 4. RCTLECIE ERMTE** _____
These devices are typically found outside the home and measure the amount of electricity you use.
- 5. CBUTKE KTURC** _____
Lineworkers use these types of vehicles to reach power lines and poles when making repairs and updates to the electrical system.



Answer Key: 1. TRANSFORMER 2. POWER LINES 3. SUBSTATION
4. ELECTRIC METER 5. BUCKET TRUCK



ELECTRICAL SAFETY QUIZ

Test your electrical safety knowledge by taking the quiz below!

Use the answer key if you need help.

1. **Smoke alarms in your home should be tested _____.**

- A. once a week
- B. twice a year
- C. once a month

2. **Overloading electrical outlets and power strips can create an electrical fire hazard.**

- A. True
- B. False

3. **What's the most dangerous place to use electricity?**

- A. Outdoors
- B. Near other electrical equipment
- C. Near water

4. **It's safe to run an electrical cord under a rug or carpet as long as the cord is not damaged.**

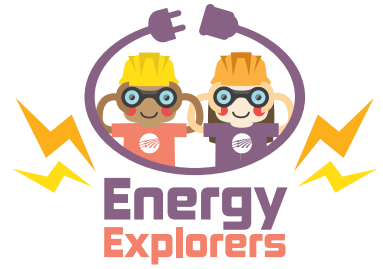
- A. True
- B. False

5. **Which is safest to play near?**

- A. Power lines
- B. Pad-mounted transformers
- C. Neither A or B – both are dangerous



LINEWORKER GEAR WORD SEARCH



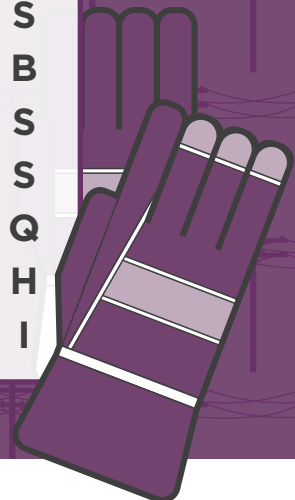
Did you know lineworkers wear special protective gear to keep them safe while working on power lines and other electrical equipment?

Read the descriptions to learn about a lineworker's gear and find the **bolded words** in the puzzle below.

- **Safety goggles** keep debris away from lineworkers' eyes while on the job.
- **Hard hats** protect lineworkers from head injuries and falling debris.
- **Work boots** provide extra protection while lineworkers work with heavy materials that could fall near their feet.
- **Flame-resistant** clothing keeps lineworkers safe from electrical hazards.
- **Insulated gloves** protect lineworkers from electrical shock while working on power lines.
- **Equipment belts** hold several tools that lineworkers need to get the job done.

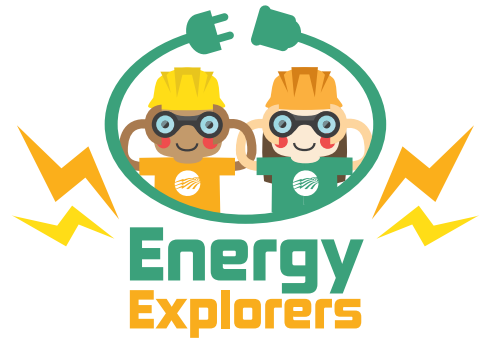


S	E	E	X	H	M	D	T	V	H	E	Z	N	P	S
G	E	A	A	U	H	J	N	P	G	I	E	V	T	H
B	P	V	T	K	T	Q	A	J	J	Q	X	L	Z	A
S	G	D	O	G	F	A	T	L	Z	H	E	D	I	R
R	I	Z	F	L	G	G	S	W	H	B	H	G	O	D
F	V	X	Y	Z	G	W	I	X	T	R	W	M	Q	H
V	L	P	A	B	W	D	S	N	D	W	L	K	O	A
D	Y	A	O	X	T	O	E	P	C	Y	Y	H	R	T
O	H	X	Y	Q	R	M	R	T	G	M	G	J	X	S
X	M	T	V	B	P	H	E	K	A	J	U	X	Z	B
P	Y	N	L	I	U	S	M	K	B	L	N	N	T	S
U	T	K	U	E	H	M	A	O	A	O	U	G	O	S
K	O	Q	N	L	Q	W	L	S	T	K	O	S	U	Q
C	E	E	H	T	I	F	F	K	D	C	G	T	N	H
S	A	F	E	T	Y	G	O	G	G	L	E	S	S	I



FAMILY PICNIC COLORING SHEET

An outdoor picnic is a great way to spend time with your family! Cooking outdoors also helps you save energy because you don't have to use appliances that heat up your home.

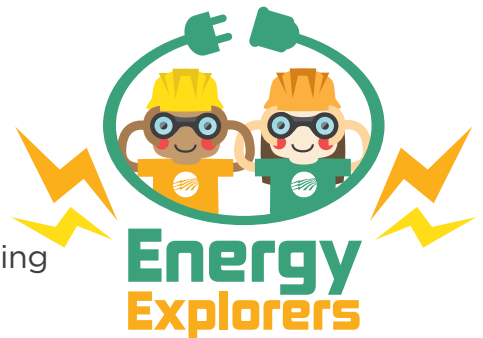


I	D	E	S	N	I	A	T	R	U	C	G	W	W	E
S	F	B	L	J	Z	S	M	H	R	R	B	S	K	S
G	H	G	S	E	B	O	R	V	S	Z	N	O	S	D
G	M	M	C	E	C	K	Z	G	I	D	M	C	L	T
J	A	A	T	G	Z	T	M	Q	I	B	H	M	O	W
T	D	L	X	J	L	H	R	S	I	L	T	E	W	I
M	J	C	O	E	P	Y	H	O	V	E	I	U	C	N
T	X	J	Y	H	G	W	X	A	N	F	A	A	O	J
R	F	K	E	H	A	L	T	A	L	I	L	U	O	D
K	E	S	X	S	H	Q	B	S	L	V	C	Z	K	W
J	C	T	H	G	F	M	X	Z	R	A	O	S	E	T
M	C	E	A	C	Z	I	G	V	Q	E	R	E	R	F
C	R	G	K	W	O	A	T	N	O	Z	F	I	S	T
Y	C	R	I	T	E	B	O	H	E	M	D	Y	F	Q
P	H	O	N	E	C	H	A	R	G	E	R	S	C	H

SUMMER ENERGY-SAVINGS WORD SEARCH

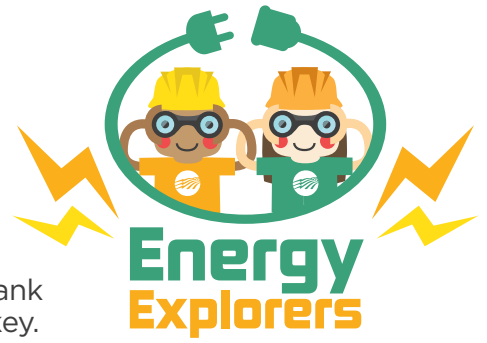
When you save energy at home, you're helping your family save money and protecting our environment.

Read the energy-saving tips below, then find and circle the bolded words in the puzzle.



- Close blinds and **curtains** on hot, sunny days to block additional heat from entering your home.
- Turn off lights and **electronics**, like TVs and stereos, when you leave a room.
- Turn off the **water** while you brush your teeth.
- Only clean full loads of dishes when you run the **dishwasher**.
- Cooking with smaller appliances like **slow cookers** and toaster ovens use less energy than larger appliances.
- Unplug **phone chargers** when they're not in use - they consume energy even when they aren't charging devices.

POWER RESTORATION FILL-IN-THE-BLANK



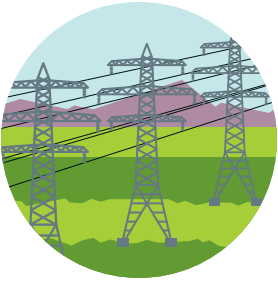
When the power goes out, line crews work hard to restore service as quickly and safely as possible. Complete the fill-in-the-blank activity below to learn about the steps of power restoration. Use the word bank if you need help, and check your work in the answer key.

Word Bank:

distribution
pads

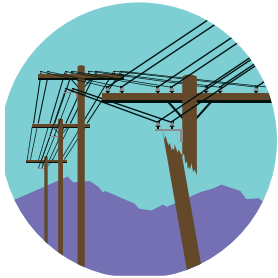
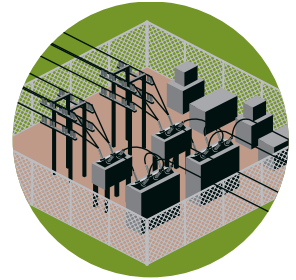
transformer
substations

transmission



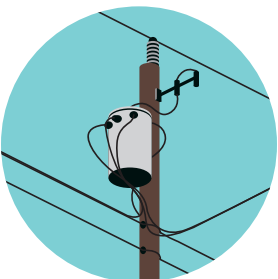
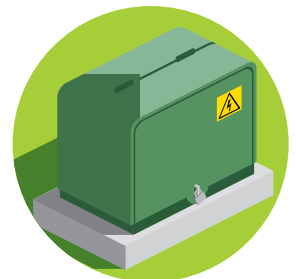
1. High-voltage _____ lines are the large towers and cables that supply power to the greatest number of consumer-members. They rarely fail, but if they do, they have to be repaired first.

2. Next, crews inspect distribution _____ for damage. They determine if the problem stems from the lines feeding into the equipment itself, or if the problem is further down the line.



3. If the problem still can't be pinpointed, _____ power lines are inspected. These are the lines you typically see on the side of the road that deliver power to communities.

4. If the power outage persists, supply lines (also known as tap lines) are inspected. These lines deliver power to transformers that are either mounted on poles or placed on _____ for underground electric service.



5. If your home remains without power, the service line between the _____ and your home may need repairs.

Answer key: 1) transmission 2) substations 3) distribution 4) pads 5) transformer