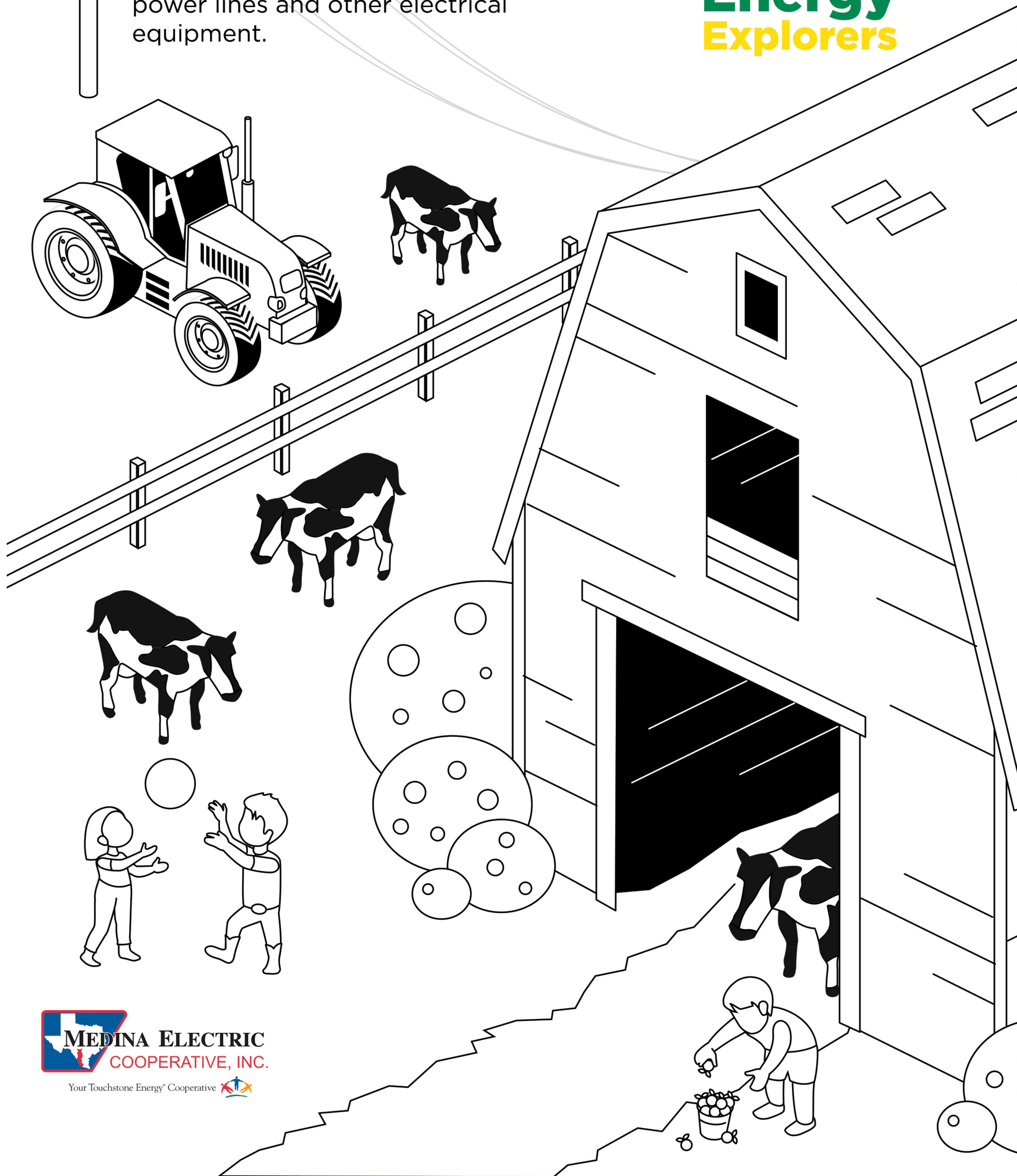


# Farm Safety Coloring Sheet

Whether you live on a farm or in the city,  
always remember to avoid playing near  
power lines and other electrical  
equipment.



**Energy**  
**Explorers**



Your Touchstone Energy® Cooperative





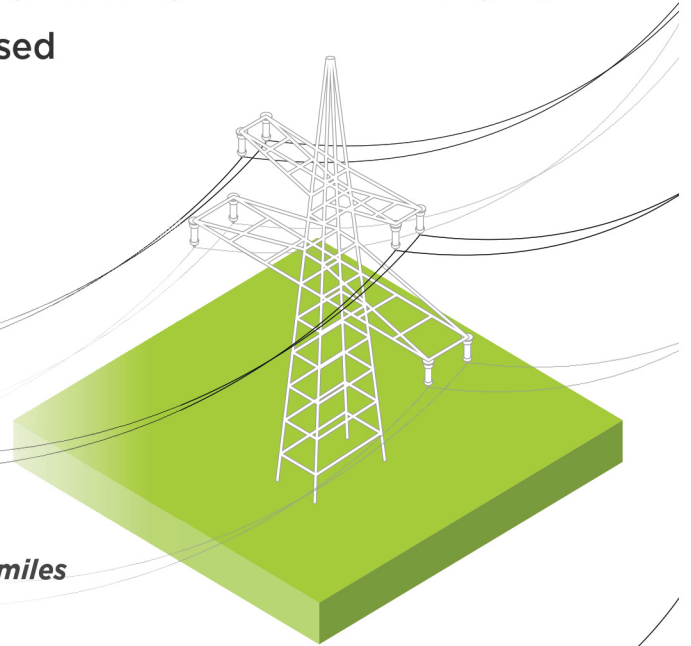
# A Field Guide to Overhead Power Lines

High-voltage transmission lines are used to deliver electricity from generation plants to consumers.

## HIGH-VOLTAGE TRANSMISSION LINES

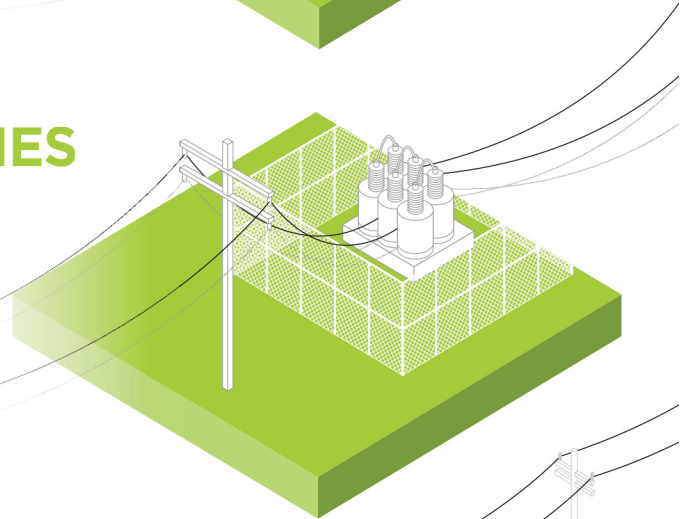
Large amounts of power, measured by watts, are delivered by transmission lines. These lines are energized with very high voltage in order to move the power long distances with minimal losses. Insulators on the towers prevent the power from flowing to the towers or the ground.

***Electric cooperatives own and maintain 65,000 miles (6 percent) of the nation's transmission lines.***



## SUBSTATIONS AND SUB-TRANSMISSION LINES

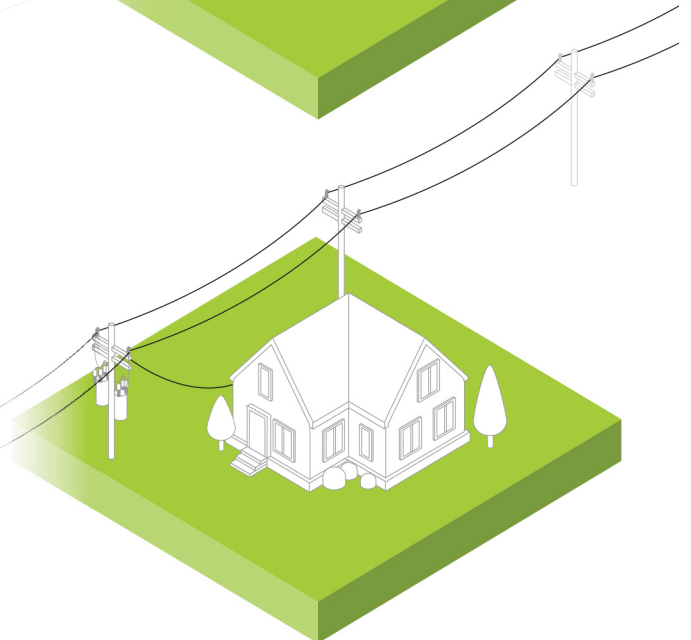
Transformers at transmission substations reduce the voltage from transmission levels to sub-transmission levels, typically ranging from 115,000 volts to 34,500 volts. Sub-transmission lines deliver power over shorter distances to distribution substations and large industrial sites. At distribution substations and large industrial sites, transformers reduce the voltage to a lower level, typically 7,200 volts or 14,400 volts.



## DISTRIBUTION LINES

The lines typically seen along rural roads and next to homes are generally single phase distribution line, energized at 7,200 or 14,400 volts. Transformers on the utility poles lower the voltage to between 120 and 480 volts to serve residential homes and small businesses.

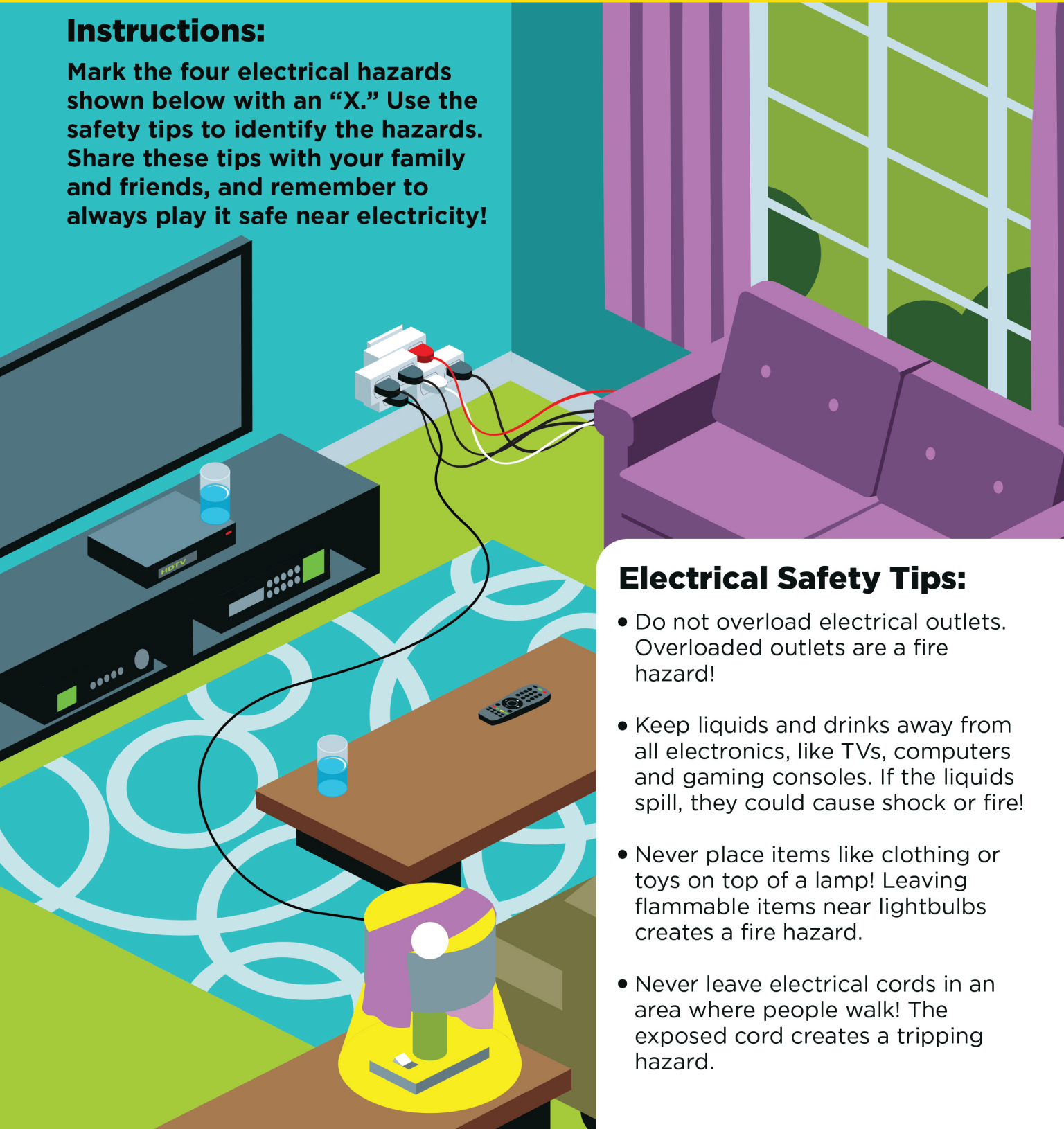
***Electric cooperatives own and maintain 2.6 million miles (42 percent) of the nation's distribution lines.***



# Electrical Safety Activity

## Instructions:

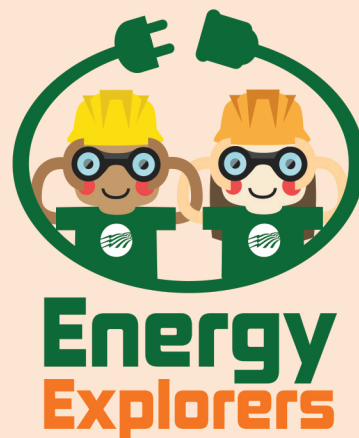
Mark the four electrical hazards shown below with an "X." Use the safety tips to identify the hazards. Share these tips with your family and friends, and remember to always play it safe near electricity!



## Electrical Safety Tips:

- Do not overload electrical outlets. Overloaded outlets are a fire hazard!
- Keep liquids and drinks away from all electronics, like TVs, computers and gaming consoles. If the liquids spill, they could cause shock or fire!
- Never place items like clothing or toys on top of a lamp! Leaving flammable items near lightbulbs creates a fire hazard.
- Never leave electrical cords in an area where people walk! The exposed cord creates a tripping hazard.

# HOW MUCH DO YOU RELY ON ELECTRICITY?



Electricity plays a major part in our everyday lives. We depend on it for nearly everything we do! How much do you rely on electricity? List your favorite activities below and determine if they use electricity.

ACTIVITY	EQUIPMENT I USED	WAS ELECTRICITY USED?
read a book	lightbulb	yes
played video games	TV/gaming system	yes





**MEDINA ELECTRIC**  
COOPERATIVE, INC.

## DOG DAYS OF SUMMER

# Word Search

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



**Help Willie Wiredhand find these words in the puzzle box.**

BEAGLE  
BLOODHOUND  
BOXER  
BULLDOG  
CHIHUAHUA  
COLLIE  
CORGI

DACHSHUND  
DALMATION  
FOXHOUND  
GREYHOUND  
HUSKY  
MALTESE  
MASTIFF

MUTT  
PEKINGESE  
PINSCHER  
POINTER  
POMERANIAN  
POODLE  
RETRIEVER

ROTTWEILER  
SCHNAUZER  
SHEEPDOG  
SHEPHERD  
WEIMARANER  
WHIPPET  
WOLFHOUND