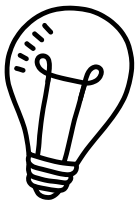
Activity book

ENERGY ADVENTURE

Move in and out of your home to complete this energy scavenger hunt!



- [ ] **Identify five things in your home that use electricity.**

  Did you know? Electricity is all around us. It's always important to be safe around electricity.

- [ ] **Count the number of light bulbs used in your home. Ask your parents if they are incandescent, CFL, or LED.**

  Did you know? By changing all light bulbs in your home to energy-efficient lightbulbs you could help save your parents up to $75 dollars a year on energy costs.

- [ ] **Go outside and identify the source of solar energy.**

  Did you know? Solar energy is a form of renewable energy. It can be been used to grow food or plants, keep warm, and dry clothes. Solar energy can also be used to make electricity.

- [ ] **Go through each room inside your home. Turn off any fans in rooms where they aren't being used.**

  Did you know? Fans cool people, not spaces. And by using a fan in an occupied room you can turn up your thermostat 4 degrees and not feel a difference in comfort.

- [ ] **With the help of an adult, turn off and unplug electronics that are not in use.**

  Did you know? When electronics or small appliances are plugged in, but not in use, they still use electricity. We call these energy vampires because they create a phantom load.

ENERGY ADVENTURE - CONTINUED

☐ **Go to your bedroom. Open and close a switch circuit.**

Hint: The light switch on your wall is a switch circuit. Turning on the light closes the circuit. Turning off the light opens the circuit. Be sure to open the switch circuit before leaving the room! Did you know? Electric circuits can be found throughout your home.

☐ **Need to check off an item on your chore chart? Complete chores such as washing clothes or vacuuming before 2 p.m. or after 7 p.m.**

Did you know? By shifting your energy use to a time outside 2-7 p.m., you've helped save energy during Power Rush Hour. Way to go!

☐ **Choose one electrical safety tip that can be used in your home. Make a flyer with a tip and display it for your family to see!**

Electrical safety tips can be found at pec.coop/safety/for-kids.

☐ **Count the number of trees around your home.**

Trees help shade your home and keep it cool during the summer months. Did you know? If you're digging 16 inches or deeper to plant trees or plants, you must call Texas811 first – it's the law, and it can save your life.

☐ **Replace one hour of "screen" time with an activity that doesn't require electricity.**

Parents, share photos of your kids enjoying this activity with us by posting it on your social media channels. Be sure to use the hashtag #PECEnergyAdventure.

WORD SEARCH

Find the words by searching vertically, horizontally, and diagonally.
Learn their definitions on the next page.

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

ELECTRICITY
OUTLET
CONSERVE
POWER
SAFETY
CONDUCTOR
INSULATOR
CIRCUIT
LIGHT
ENERGY
COOPERATIVE
METER
RENEWABLE
NONRENEWABLE
TELEVISION
LINES
LINEWORKER
THERMOSTAT
WATER
SPARK
GROUND
PATHWAY
LOAD

ENERGY VOCABULARY

Electricity: The flow of electric charge or electrons in one direction.

Outlet: Point on a wall to which electricity is supplied. Only plugs go into electrical outlets.

Conserve: To use wisely, save; it is important to conserve electricity because it saves money and resources.

Power: The measurement of energy transfer over time.

Safety: Freedom from the occurrence or risk of injury, danger, or loss. Although convenient, electricity can be dangerous. Safety is important when using electricity inside and outdoors. Visit pec.coop/safety for more safety tips.

Conductor: Material that allows electricity to flow through it easily. Examples of conductors are water, people, metal, and copper.

Insulator: Material that does not allow electricity to flow through it easily. Examples of insulators are plastic, paper, and rubber.

Circuit: A pathway through which electricity flows.

Light: A form of energy made of electromagnetic radiation.

Energy: The ability to do work. Energy can come from different sources such as heat, sun, wind, light, electrical, mechanical, and chemical.

Cooperative: A business owned by its customers or members. Pedernales Electric Cooperative is an electric cooperative. Everyone who receives electricity from an electric cooperative is a member-owner.

Meter: A device used to measure the amount of electricity used at a home or business.

Renewable: Renewable energy sources are sources that can be replenished. Examples of renewable resources are sun, water, and wind.

Nonrenewable: Nonrenewable energy sources are sources that cannot be replenished. Examples of nonrenewable resources are coal, oil, and natural gas.

ENERGY VOCABULARY - CONTINUED

Television: In this example, a television is an example of something that uses electricity. We use electricity every day and many times do not realize it. Other items we may use every day that require electricity are lights, hair dryers, toasters, and air conditioner or heating systems.

Lines: Lines or powerlines are pathways that allow electricity to flow through them from a power plant to a home.

Lineworker: A person who works to construct, repair, or maintain powerlines.

Thermostat: Devices used to manage the temperature in your home. To be energy efficient, set thermostats to 78 degrees in the summer and 68 degrees in the winter.

Water: In this example, water is defined as a good conductor of electricity. The human body is 70% water, so people are excellent conductors.

Spark: Any electric arc of relatively small energy content. Electrical sparks can be dangerous, so it is always important to practice safety around electricity.

Ground: Electricity is always looking for the fastest pathway to the ground. If people touch a power line while standing on the ground or by using a ladder or tree, they provide a path for electricity to the ground. To stay safe around electricity, it is important to never provide pathways for electricity to travel to the ground.

Pathway: What the power travels along; for example, power lines and wires are pathways.

Load: What is using the power; for example, lights, television, computers, refrigerators, and other items that are plugged or wired into electric power are loads.