CenterPoint Energy School Education Program



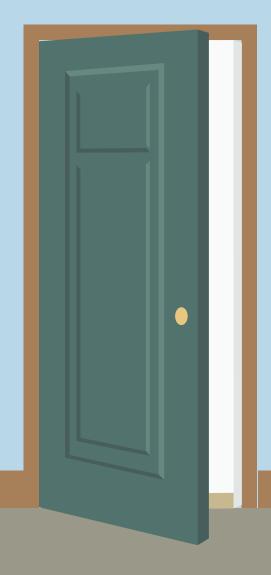


Welcome to Think! Energy.

Energy is a big part of our everyday lives. Have you ever thought about where it comes from or how it gets to where you need it? You are about to find out!

You will receive a *Take Action Kit* containing energy-efficient products for your home. As you install these items, share with your family what you have learned about energy at school. Then, use this guide to discover other ways to conserve energy and water together.

Thank you for making a difference!



Earn your scented highlighter by completing the *Home Energy Worksheet* in one of two ways:

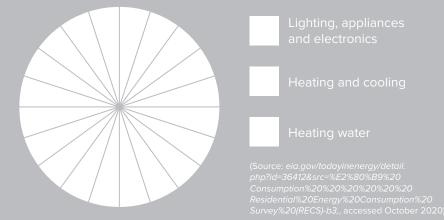
- Visit thinkenergy.org/CenterPointEnergy
 to fill out an online worksheet. You will
 need to enter the teacher ID which can
 be found using the teacher lookup tool
 on the program website.
- Fill out the paper worksheet and return it to your teacher.



Your Home's Electricity Use

Most families in the U.S. use about 54% of their electricity for lighting and to power appliances and electronics, 32% to heat and cool their homes and 14% of their energy to heat water.

Choose three colors and create a pie chart with the percentages above. You may need to round each number. Each segment on the chart shows 5%.

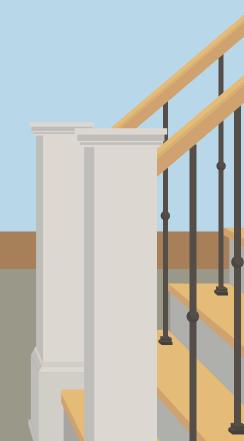


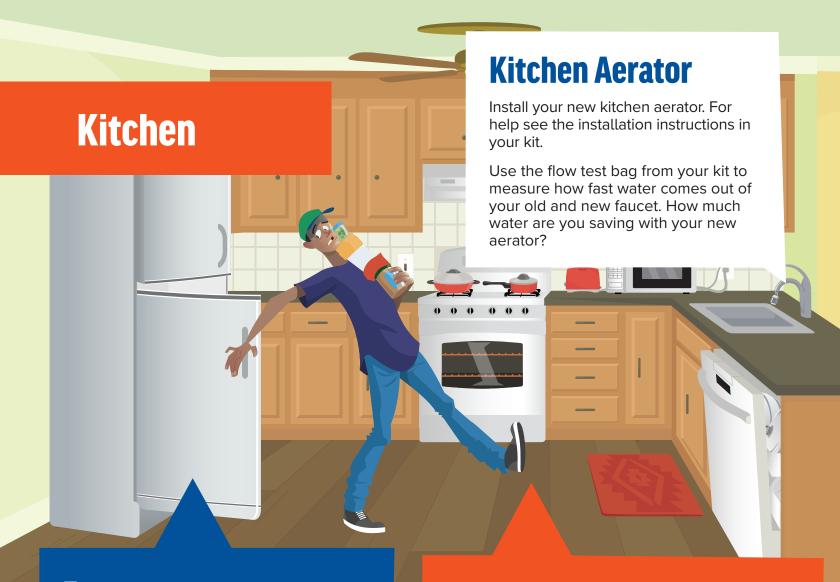
Energy is the ability to do work. Your body uses energy to walk, talk and run. We also use energy in our homes to heat and cool the air, heat the water and power refrigerators and video games. The two main types of energy are kinetic and potential. Kinetic energy is energy of motion, like riding a bike. Potential energy is energy waiting to be released, like in natural gas.

Did you know that most of our energy comes from nonrenewable resources such as fossil fuels (oil, coal, natural gas) and uranium? A small portion of our energy comes from renewable sources such as the sun, wind, water, geothermal and biomass.

When we are efficient with energy, we use less energy to accomplish the same amount of work. To be more energy efficient, Think! about how energy is used, Talk! to your family about ways to use it wisely and Take Action! by installing the items in your *Take Action Kit*. The installation instructions in your kit or installation videos at *thinkenergy.org/CenterPointEnergy* can help!

Let's get started. Take a tour of this energy-efficient house. See how efficiently you are living. Enjoy the journey!





Fans

Fans can save a lot of energy. If you use air conditioning, a ceiling fan will allow you to raise the thermostat and still feel cool.

Refrigerator

Recycle the old, inefficient model rather than using it as a spare.

Decide what you want before you open the door.

Yellow EnergyGuide labels show the efficiency of an appliance and the cost to run it.



Cooking

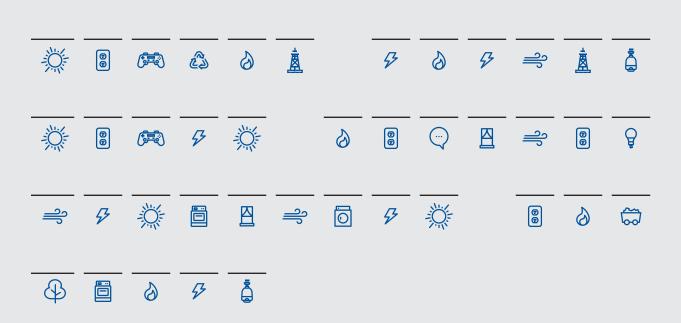
For cooking or reheating small portions, use the microwave or toaster oven.

Always match the pot to the size of the burner and use lids to shorten the cooking time.

Keep the oven door closed as much as possible when baking.



Break the energy efficiency code!







Fireplace

Always keep the fireplace flue closed when not in use. Glass fireplace doors also keep the cold air out.

Thermostat

Install a programmable or smart thermostat to regulate the temperature of your home according to your schedule. This low-cost item is easy to install and will save both energy and money.

Set your thermostat at 68 F in the winter and 78 to 80 F in the summer.



Advanced Power Strips

There are several types of advanced power strips. They all have the same job of shutting off power supply to items that are not in use. The television is plugged into the control outlet of this power strip. Television accessories turn off when the television is off.



Bedroom

Use efficient LEDs.

Turn off the lights when you leave the room.

Unplug chargers when they are done with their job. They continue to draw electricity, even when a battery is fully charged.

Windows

Keep windows closed when the furnace or air conditioner is on.

Close drapes and blinds when you want to keep out sunlight and heat.

Use an energy-efficient night light.

Scavenger Hunt

Take a walk around your home and make a tally mark in one of the boxes below each time you see a bulb.

Pick inefficient bulbs that are used often at your home. Then, change those bulbs for LEDs. Do not wait until inefficient bulbs burn out – start saving now!

Why did the silly gardener plant a light bulb?

Activity **2**

Answer: He wanted to grow a power plant.

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Total CFLs





Total Incandescents



\$0.20

savings



Add these two to find your annual savings using only LEDs.

Bathroom

Turn off the water when brushing your teeth.

Save water by installing WaterSense® toilets.

For more information visit epa.gov/watersense.

Always repair leaky faucets.

Showerhead

Use the flow test bag from your *Take Action Kit* to measure how quickly water comes out of your existing showerhead.

Install your new, efficient showerhead, using the plumber's tape in your kit. For help, visit thinkenergy.org/
CenterPointEnergy to watch an installation video or see the installation instructions in your kit.

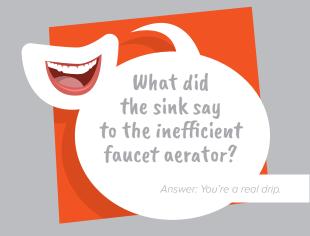
Use the flow test bag again to see how much water you can save every minute the shower is on.

Shower Timer

Use a shower timer to remind your family to take the 5 minute shower challenge.

Bathroom Aerator

Install the energy and water efficient bathroom aerators to cut your water use by 30% or more.





Utility Room

Since natural gas is odorless, the chemical mercaptan is added as a safety measure. Be aware of this rotten egg smell if you have a gas stove, water heater or furnace.

Water Heater

Typically, the water heater should be set to 120 F. Try another fun science experiment. Use a thermometer to measure the temperature of hot water coming out of a faucet. Is the water heater set correctly? If not, have an adult adjust it.

Add pipe wrap to your conventional water heater.

Insulation

Your house will be more comfortable year-round with insulation in its attic, exterior walls and basement to stop the transfer of heat.



Heating and Cooling

Install a furnace filter whistle. It will remind you when the filter needs to be changed. A clean furnace filter saves energy by helping your furnace to operate more efficiently.

Clean and service your heating and air conditioning units once a year.

If your equipment is older than 10 years, consider replacing it with an ENERGY STAR® qualified model.

Living in an apartment? Ask your landlord if the furnace or boiler is regularly serviced.



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- Fill out the paper worksheet and return it to your teacher.

*If you cannot use any item from the kit, please give the device to a neighbor, friend or relative who lives nearby. The *Home Energy Worksheet* should reflect use of all items from the kit, even if used in someone else's home.

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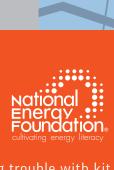












Having trouble with kit items? Call **1.800.939.1325** thinkenergy.org/CenterPointEnergy

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