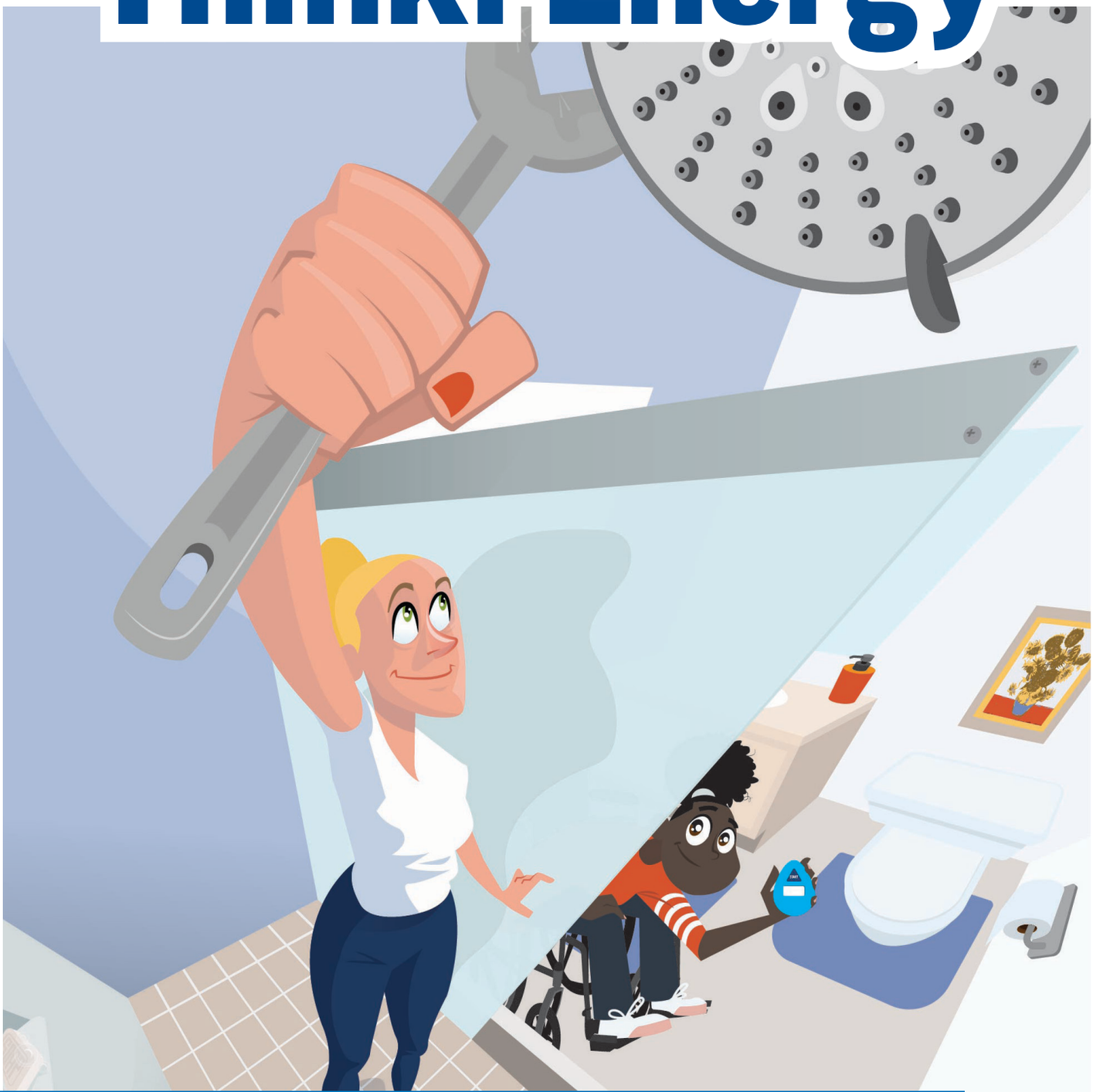
Think! Energy



Family Activity Guide

DTE CleanVision Energy Efficiency | SEMCO Energy Waste Reduction Save Energy. Save Money.

Dear family,

Welcome to the Think! Energy program.

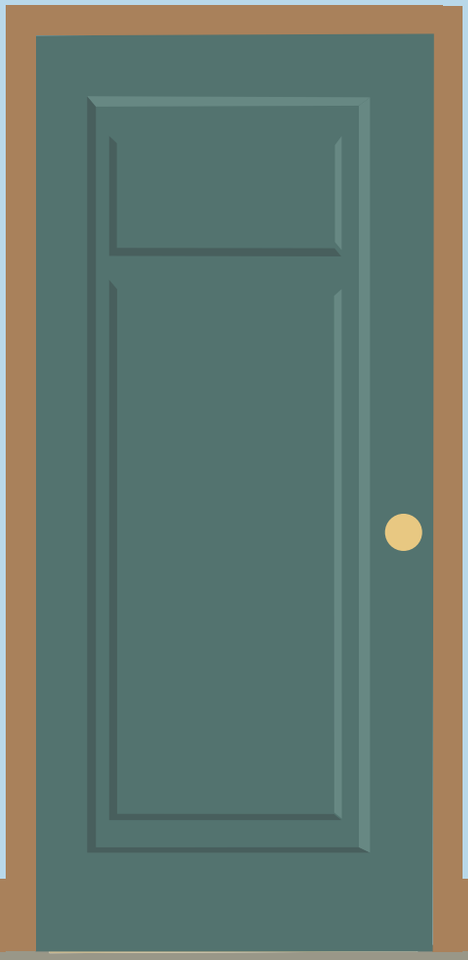
Energy is a big part of our everyday lives. Have you ever thought about where it comes from or how it gets to where you need it? You are about to find out!

Students, as you work through this guide 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. Work with an adult to install energy-efficient products. Everything in this guide may not apply to your current home but may be useful for the future.

Thank you for making a difference!



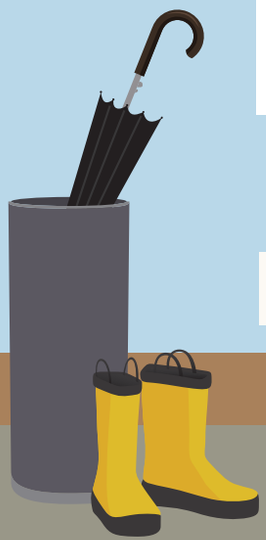
Families who live in rental homes can contact their property manager for assistance installing energy efficiency upgrades.



Did you get a *Take Action Kit*? If so, help your school earn a classroom award by completing the *Home Energy Worksheet* (HEW) in one of two ways:

- Visit **thinkenergy.org/sem-dte** with a parent or guardian to fill out an online worksheet. Scan the QR code below to go to the website.
- Have an adult fill out the paper worksheet and return it to your teacher.

If you need assistance with the *Take Action Kit*, call the Think! Energy helpline at 800.616.8326 ext. 157.

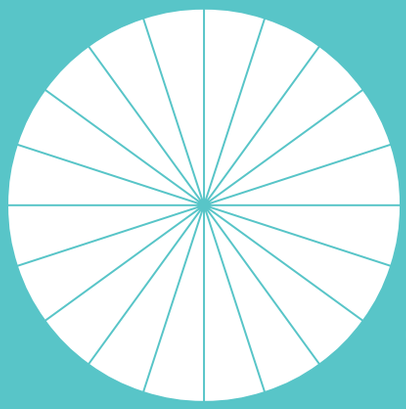


Activity
1

Your home's energy use

Most families in the Midwest use about **23**% of their energy for lighting and to power appliances and electronics, **62**% to heat and cool their homes and **15**% of their energy to heat water.

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



- Lighting, appliances and electronics
- Heating and cooling
- Heating water

(Source: EIA RECS Table ce3.1.st, **eia.gov/consumption/residential/data/2020/state/pdf/ce3.1.st.pdf**, accessed March 2025)

Energy is the ability to do work. We need energy to heat and cool the air and water in our homes. We also need energy to power appliances and our electronic devices. Did you know that our energy comes from **renewable** and **nonrenewable** resources?

Renewable	Nonrenewable
sun	oil
wind	coal
water	natural gas
geothermal	uranium
biomass	



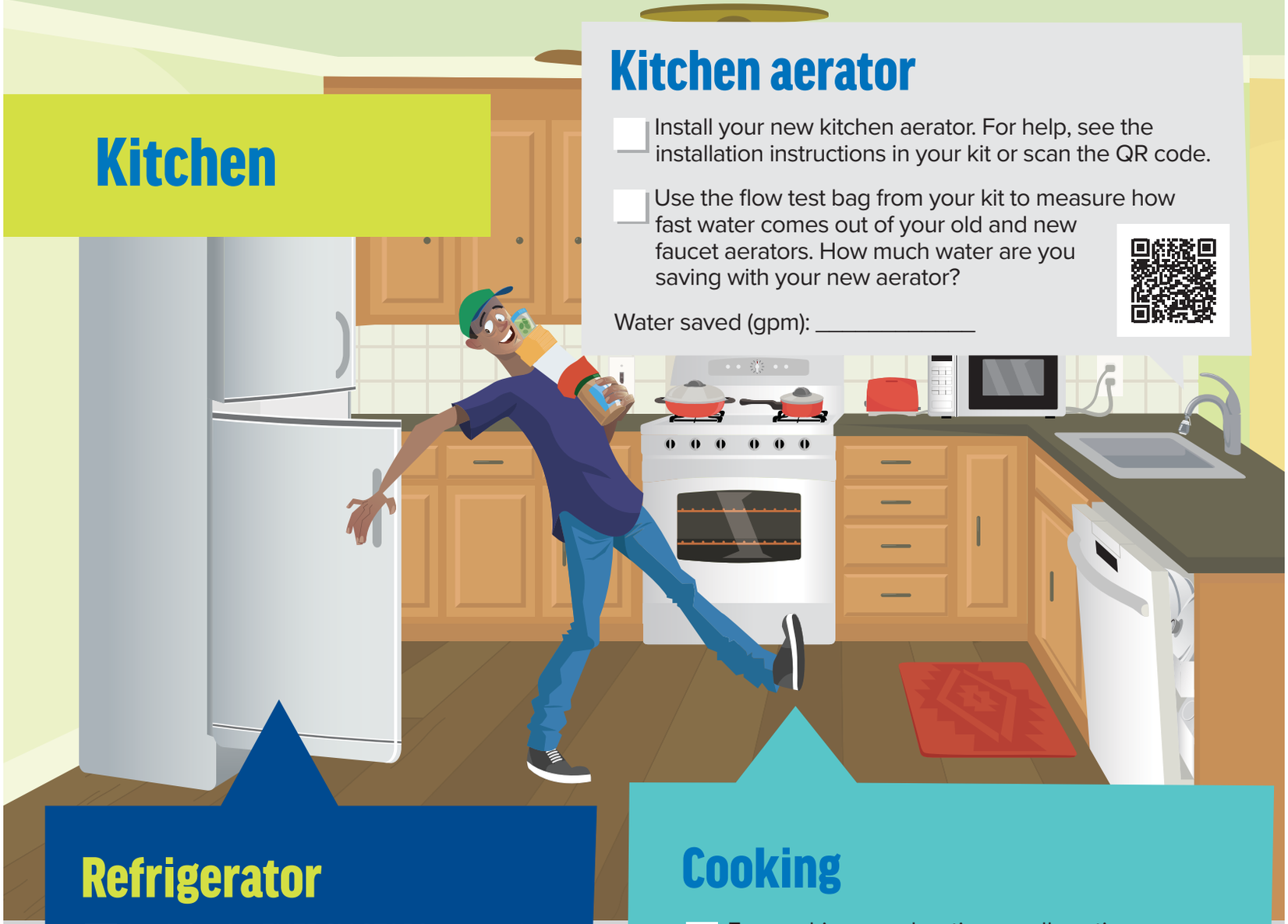
Being more **efficient** with the energy we use means that we use less of it to do the same amount of work. When we are more efficient with our energy use we can save money on our energy bills and help the environment by reducing greenhouse gas emissions.

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/sem-dte** can help!

Let's get started. Take a tour of this energy-efficient home. Check the boxes next to the tips you have used to see how efficiently you are living.

*Not every energy-efficient item in this booklet will be in your *Take Action Kit*.

Kitchen



Kitchen aerator

- [ ] Install your new kitchen aerator. For help, see the installation instructions in your kit or scan the QR code.
- [ ] Use the flow test bag from your kit to measure how fast water comes out of your old and new faucet aerators. How much water are you saving with your new aerator?

Water saved (gpm): _____

Refrigerator

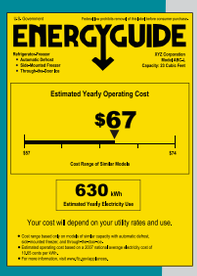
- [ ] Look for the ENERGY STAR® name when you purchase a new refrigerator.
- [ ] Recycle the old inefficient model rather than using it as a spare.
- [ ] Visit **dteenergy.com/saveenergy** and **semcoewr.com** to see if you are eligible for money back from our appliance recycling programs.
- [ ] Decide what you want before you open the door.

Cooking

- [ ] For cooking or reheating small portions, use the microwave or a 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.

EnergyGuide

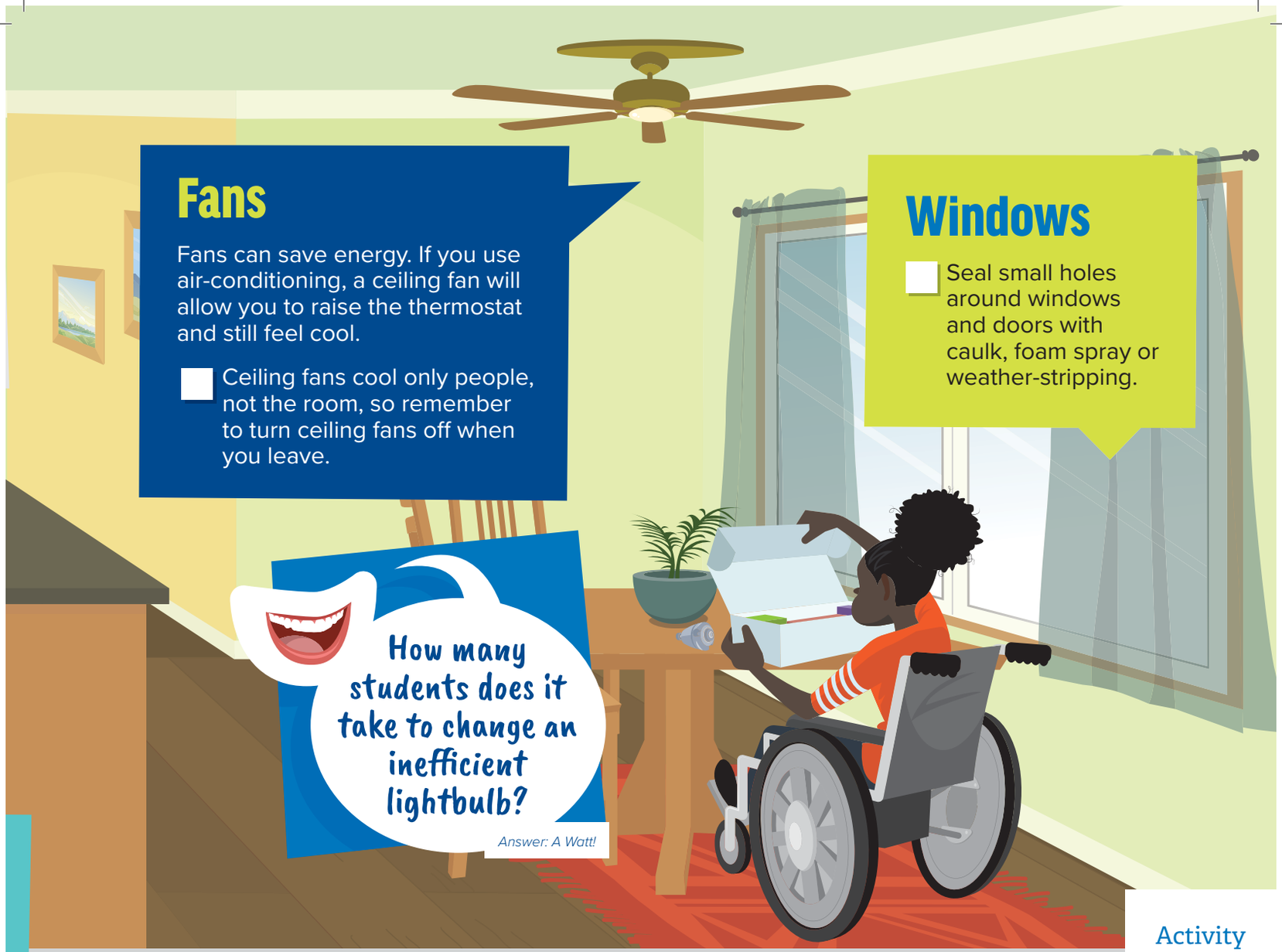
Look for EnergyGuide labels that show the efficiency of an appliance and the cost to run it.



Dishwasher

- [ ] Only run the dishwasher if it is full.
- [ ] Turn off the heat-dry switch and let the dishes air-dry.
- [ ] Choose an ENERGY STAR® model when you are buying a new dishwasher.

ENERGY STAR



Fans

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

- [ ] Ceiling fans cool only people, not the room, so remember to turn ceiling fans off when you leave.

Windows

- [ ] Seal small holes around windows and doors with caulk, foam spray or weather-stripping.

How many students does it take to change an inefficient lightbulb?

Answer: A Watt!

Activity **2**

Break the energy efficiency code!



KEY



Family room

- [ ] Install LEDs. They use up to 90% less energy and last up to 25 times longer than incandescent lighting.

What do turning off the lights and a baseball team have in common?

Answer: They both need a "switch hitter."

Fireplace

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

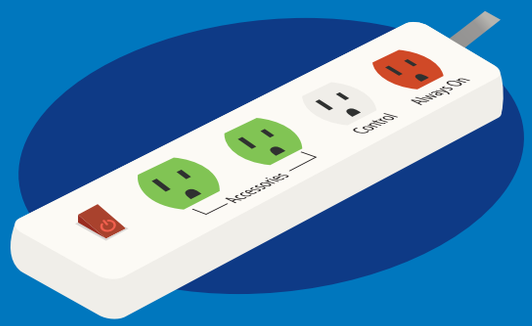
Thermostat

- [ ] Install a programmable 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. Visit **semcoewer.com** to find instant rebates on Wi-Fi thermostats.
- [ ] Set your thermostat at 68 to 70° F or lower in the winter and as high as is comfortable in the summer. Every degree you change the thermostat will make an impact on your energy use and your bill.



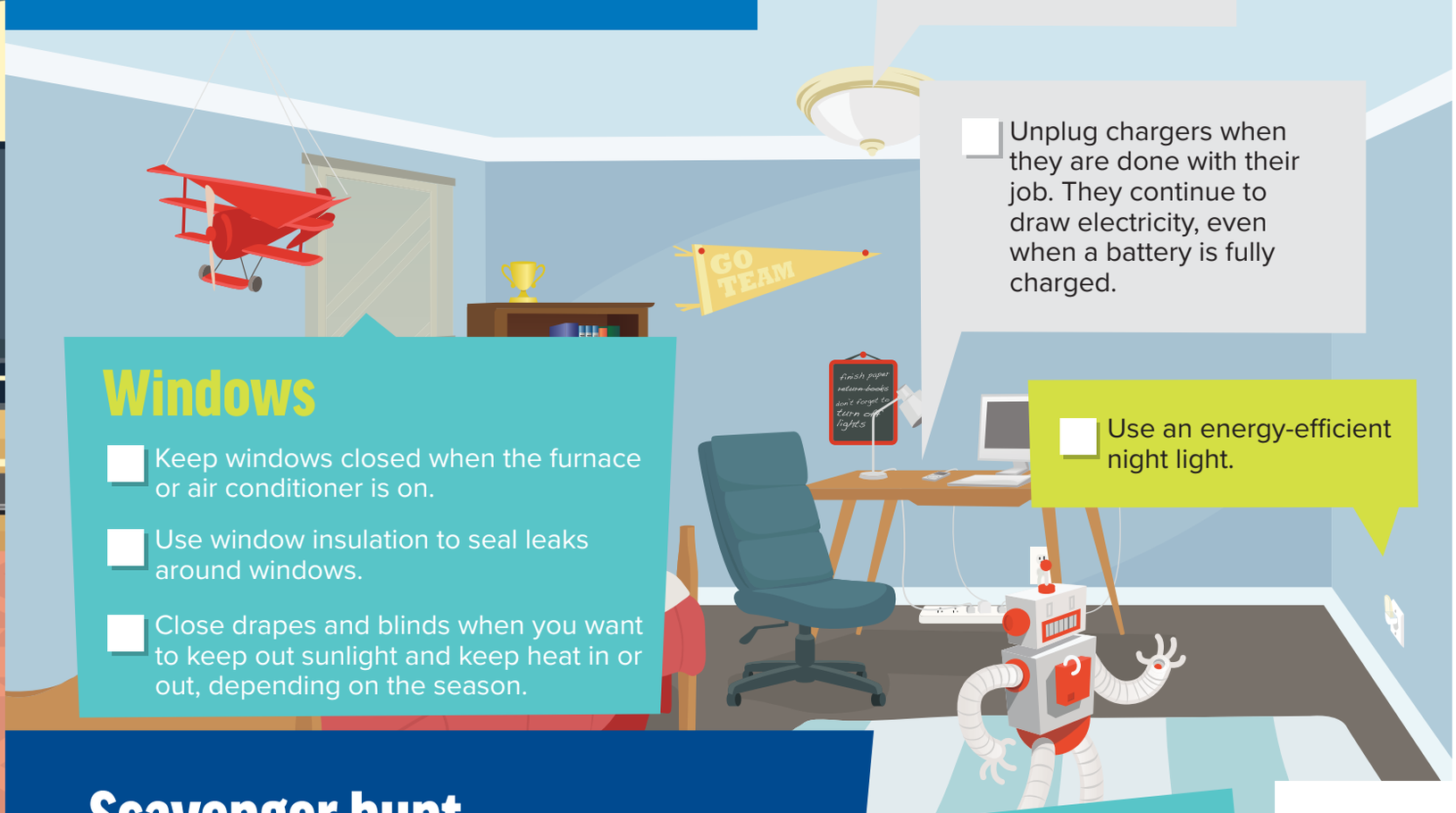
Advanced power strips

- [ ] Use advanced power strips. There are several types you can use to save electricity. They all have the same job of shutting off the power supply to items that are not in use. When 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.
- [ ] Use an energy-efficient night light.



Windows

- [ ] Keep windows closed when the furnace or air conditioner is on.
- [ ] Use window insulation to seal leaks around windows.
- [ ] Close drapes and blinds when you want to keep out sunlight and keep heat in or out, depending on the season.

Scavenger hunt

Take a walk around your home and search for each energy saving item. Write down where you found the items or, if you could not find them, where your family may be able to install them.

LED	
Ceiling fan	Caulk, foam spray or weather-stripping around windows
Advanced power strip	Weather-stripping around doors

Activity 3

Why did the silly gardener plant a lightbulb?

Answer: He wanted to grow a power plant.

Bathroom



- [ ] Turn off the water when brushing your teeth.
- [ ] Always repair leaky faucets.
- [ ] Save water by installing WaterSense® toilets.

  Visit **epa.gov/watersense** for more information.

Showerhead

- [ ] Use the flow test bag from your *Take Action Kit* to measure how fast water comes out of your existing showerhead.
- [ ] Install your new, efficient showerhead using the plumber's tape in your kit.
- [ ] Use the flow test bag again to see how much water you can save every minute the shower is on.
- [ ] Use the QR code to watch an installation video.

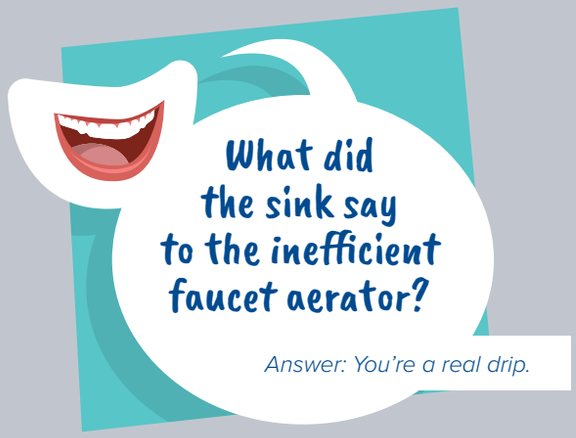
____ old showerhead -
____ new showerhead =
____ gallons saved each minute

Shower timer

- [ ] Use the shower timer from your kit to remind your family to take the 5 minute shower challenge.

Bathroom aerator

- [ ] Install the energy-efficient and water-efficient bathroom aerators to cut your water use by around 30%.



Laundry



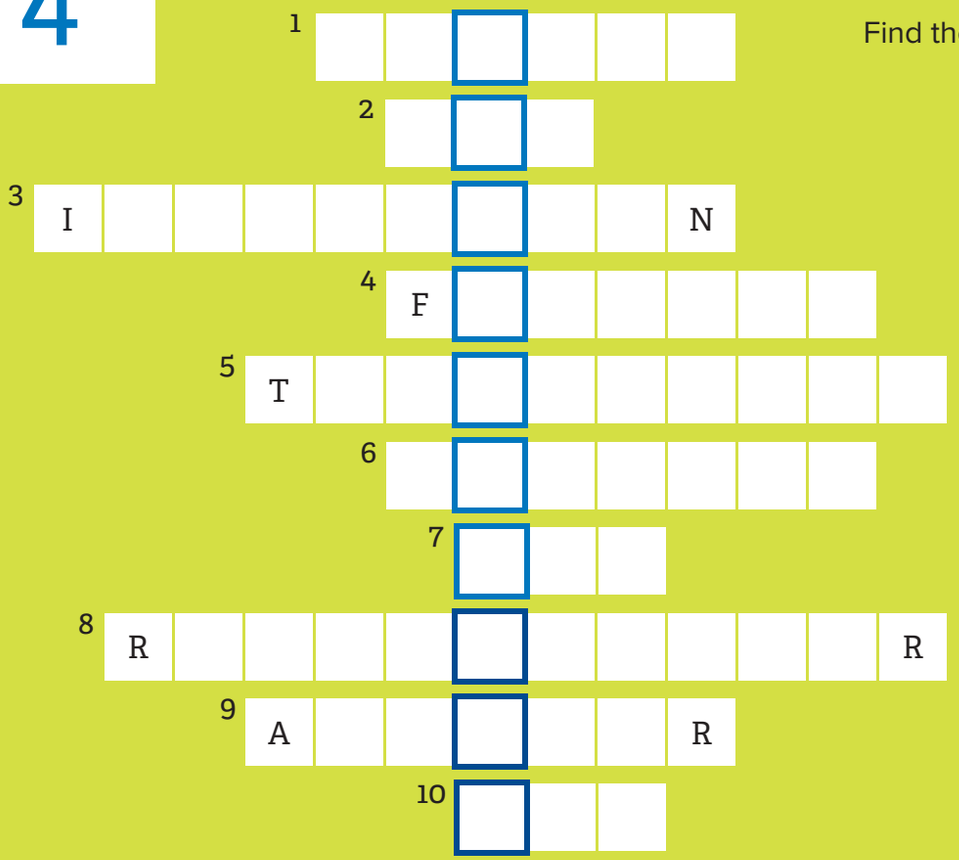
Washer and dryer

- [ ] Wash with cold water.
- [ ] Always wash a full load.
- [ ] Air-dry laundry when possible.

Activity
4

Find the mystery words by filling in the puzzle.





Utility area

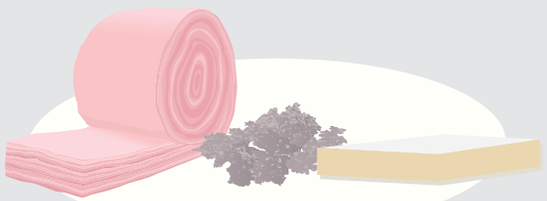
Since natural gas is odorless, a rotten egg smell called mercaptan is added as a safety measure. Be aware of its smell if you have a gas stove, water heater or furnace.

Water heater

- [ ] Your water heater should be set to 120 F. If someone in your home has a suppressed immune system or chronic respiratory disease, get advice from a health professional.
- [ ] 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.
- [ ] Work with an adult to add pipe wrap from your kit 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.



Fiberglass roll | Loose fill insulation | Rigid foam insulation

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 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.



Take the next step

Visit **dteenergy.com/saveenergy** and **semcoewr.com** to take advantage of all the rebates DTE Energy and SEMCO offer for energy efficiency.

If you get power from DTE, join the decarbonization movement by signing up at **migreenpower.com**.

Help your classroom earn an award! Visit thinkenergy.org/sem-dte to watch helpful videos, do the HEW, play games and find more ways to save!



If you took a kit, help your classroom earn an award! Do the HEW in one of two ways:

- Visit our website at thinkenergy.org/sem-dte with a parent or guardian to complete the online worksheet.
- Have an adult fill out the paper worksheet and return it to your teacher.

*If you cannot use an item from your *Take Action Kit*, give it to a neighbor, friend or relative who lives nearby. The HEW should reflect use of all items from the kit, even if used in someone else's home.

Did not take a kit? Ask your teacher for a kit or an alternate way to earn your pencil.

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DTE CleanVision Energy Efficiency

SEMCO Energy Waste Reduction
Save Energy. Save Money.



Think! Talk! Take Action!™

Having trouble with or missing kit items?
Call 800.616.8327 ext. 157 or
visit our website at
thinkenergy.org/sem-dte for installation videos.

Program partner:

National Energy Foundation

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