



This summer the Energy and Water Management Team wants you to take what you learned around how to save energy and water at school and apply it at home! This activity packet is a great way to reduce your energy and water waste at home and you can get the entire family involved.



When you have completed this activity packet, share your work with your iSTEM Teacher!

OPTIONAL: Share your bookmark, reminders, or even calculations with us on social media! Find us on Facebook, Instagram, and Twitter at @CvilleSchools, and use the #CCSEnergyWater on your posts.

ACTIVITY - CREATE REMINDERS

It is hard to remember to do things like turning the lights off when you leave a room or turning the water off while you are brushing your teeth, especially when it isn't second nature. Reminders can be a great way to help make sure these energy and water saving actions become everyday habits.

YOUR TASK: Tap into your creativity and come up with reminder messages that will help you (and your entire family) remember to save water and energy. Below are some ideas to get you started. Make it stand out, and then ask an adult where and how you can put it in your home next to items needing the reminder.

Turn the lights off when you leave a room.

Suggested location:
Next to a light switch

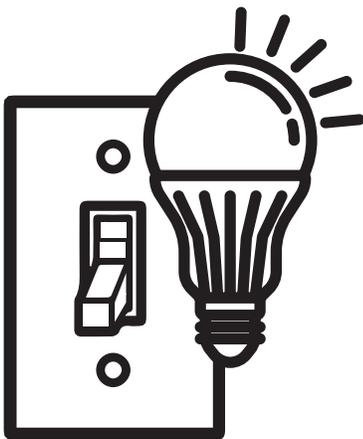
Turn the water off when not in use.

Suggested location:
Next to your bathroom or kitchen sink

Unplug electronics when you are done.

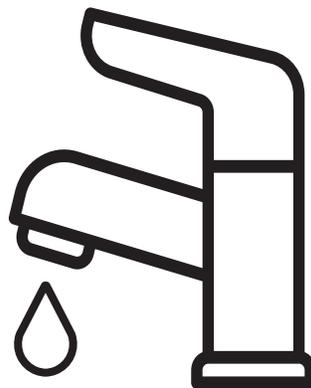
Suggested location:
Next to your laptop

FLIP THE SWITCH



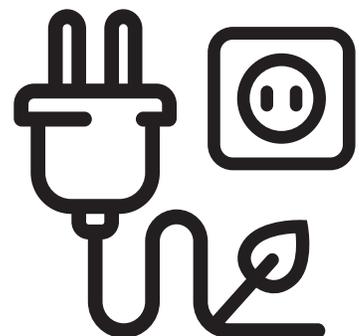
Help reduce energy waste!

TURN OFF THE TAP



Help reduce water waste!

UNPLUG ME AFTER USE



Help reduce energy waste!

ACTIVITY – HOME ENERGY & WATER ACTIONS

Check out all the things that use energy and water in your home... there are a lot of them! Now you can start making important decisions on what you can do to reduce your energy and water waste at home.

1. **How much energy and water do you think you use a day (this is just a guess, we will find out more later in the activity)?**

Water: _____ gallons Energy: _____ kilowatt-hours (kWh)

2. **What do you think uses the most energy in your home?**
(Hint: To help keep your home feeling just right.)

3. **What do you think uses the most water in your home?**
(Hint: You don't want to jiggle the handle.)

YOUR TASK: This week, try to do all four of these energy and water saving activities. Once you complete an activity, check the box!



Ask your parents to help you **check your thermostat** and ask if you can **set it to energy-friendly settings** — try 78°F. Even just changing them by a few degrees can make a difference!



Try to take a **shorter shower** (instead of a bath), and consider setting a timer to see if you can get out under 5 minutes.



Check your home for **dripping faucets and toilets**. How many did you find? Tell an adult and ask them to fix it!



Turn off electronics when not in use (if you don't need something for more than 20 minutes). This includes computers, monitors, TVs, and gaming consoles.

TRACK YOUR DAILY ENERGY AND WATER USE

YOUR TASK: Use these guides to help you calculate how much energy and water you use from lights, electronic devices, and water fixtures frequently used in your home. Try doing this before and after you put up your reminders to reduce energy and water and see if your numbers change!

A. Energy Activity	B. How many times do you do this each day?	C. Approximate energy use for this activity	D. Total Energy Use Multiply Column B x C
Turn the lights on with an incandescent bulb (1 hour)		60 watts	watt-hours
Turn the lights on with a CFL bulb (1 hour)		13 watts	watt-hours
Turn the lights on with a LED bulb (1 hour)		8 watts	watt-hours
Read a book (1 hour)		0 watts	watt-hours
Use a computer or laptop (1 hour)		100 watts (Computer) 60 watts (Laptop)	watt-hours
Watch a show on a TV (1 hour)		30 watts	watt-hours
Charge your cell phone (1 hour)		5 watts	watt-hours
Play a video game (1 hour)		90 watts	watt-hours
Play outside (1 hour)		0 watts	watt-hours
DID YOU KNOW? The average US home uses about 29 kilowatt-hours (kWh) of energy a day!		Total: Add up everything in Column D	watt-hours
		Total in kilowatt-hours (Total watt-hours/1000)	kilowatt-hours

Check out the Energy Use Calculator: www.energyusecalculator.com/calculate_electrical_usage.htm

TYPES OF LIGHTBULBS



incandescent

Worst for saving energy



compact fluorescent (CFL)

Best for saving energy



LED

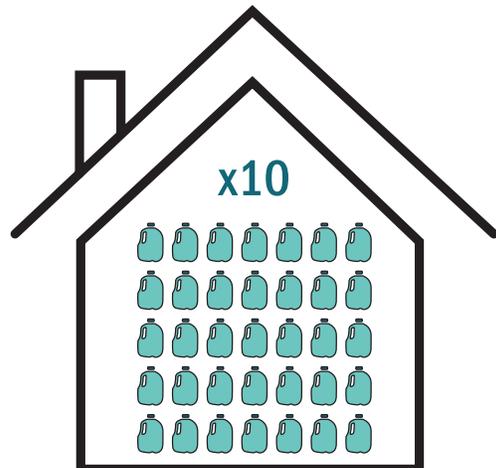
— TRACK YOUR DAILY ENERGY AND WATER USE —

A. Water Activity	B. How many times do you do this each day?	C. Approximate water use for this activity	D. Total Water Use Multiply Column B x C
Brush your teeth (with the water running)		4 gallons	gallons
Brush your teeth (with the water not running)		2 gallons	gallons
Take a shower (about 10 minutes)		28 gallons	gallons
Take a shower (about 5 minutes)		12 gallons	gallons
Take a bath (three-fourths filled)		50 gallons	gallons
Flush the toilet		2 gallons	gallons
Wash your hands		1 gallon	gallons
Water your plants with rain water		0 gallons	gallons
Water your plants with a hose (about 5 minutes)		45 gallons	gallons
Play outside		0 gallons	gallons
Total: Add up everything in Column D			gallons

Check out the Water Calculator: www.home-water-works.org/calculator

**DID
YOU
KNOW?**

The average US
home uses about
350 gallons of
water a day!



Don't forget to take the **pledge to save energy and water at home** and be ready in the fall to continue to build on what you have learned about saving energy and water!

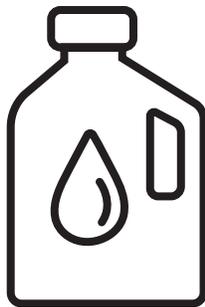
YOUR TASK: Color and decorate the bookmark below. Cut out and glue together. Use this bookmark to help you remember how to save all summer long!



This summer I pledge to be an energy and water saver at home!



Did you know that the average US home uses about **29 kilowatt-hours of energy** in a day!



Did you know that the average US home uses about **350 gallons of water** a day!



I PLEDGE TO:



- Turn the lights off when I leave a room.
- Power down and unplug electronics when I'm finished with them.
- Close windows and doors when my home's heating and cooling systems are on.
- Turn the water off when not in use.
- Use a reusable water bottle instead of single-use plastic bottle.
- Report water leaks as soon as I see them.
- Come back to school in the Fall ready to keep saving energy and water!

Charlottesville.gov/EnergyWater



LEARN MORE ABOUT ENERGY AND WATER USE:

Energy Use Calculator: www.energyusecalculator.com/calculate_electrical_usage.htm

Water Calculator: www.home-water-works.org/calculator

WaterSense Game: www3.epa.gov/watersense/quiz/game_kids.html

ENERGY STAR Game: www.energystar.gov/index.cfm?c=kids.kids_index