

## ENERGY STAR Home Check-Up

Use this ENERGY STAR Home Check-Up to walk through your home with your family (or someone else's home, too) and identify ways to start saving energy, money, and the planet right away. Regardless of whether you live in a single-family home or an apartment or you rent or own, there are several ideas here that can help you save—so just review and pick those that work for your home.

First you **Investigate** by checking your home for ways to save energy. Then you **Educate** your family member (that is the person(s) who lives at home with you who will join you for the checkup) on how to save energy. You can then show your family how to take action to make changes—this is the **Activate** part. And once you activate the change, you not only **Save** energy, money, and the environment, but you help change the world—one home, one family at a time.

## ENERGY STAR

ENERGY STAR for the home includes ENERGY STAR certified products as well as a variety of energy-saving practices that you can implement in your home to save energy—from simple tips like turning off lights and TVs before you leave a room to bigger projects like adding insulation in the attic. ENERGY STAR certified products are third-party certified to meet strict energy-efficiency requirements set by the Environmental Protection Agency. That means they will save energy, and saving energy saves money and reduces greenhouse gas pollution that contributes to climate change.



## LIGHTING

### ★ INVESTIGATE:

Look for incandescent light bulbs (the old-fashioned kind of light bulbs, with filaments) as pictured on the next page.

### ★ EDUCATE:

With so many lighting choices these days, the best way to find an energy-saving light is to look for the ENERGY STAR label. Use the “Bulb Purchasing Guide” on the next page to learn more about choosing the right ENERGY STAR certified LED bulb. You can also visit [energystar.gov/choosealight](http://energystar.gov/choosealight), a great tool that walks you through simple steps in selecting the right LED bulb for your needs.

### ★ ACTIVATE:

- Encourage the resident to start by changing out incandescent bulbs in lights that get used the most, to get the most savings. Typically these are the kitchen ceiling light, living room table and floor lamps, bathroom vanity, and outdoor porch or post lamp.
- Supply the resident with a copy of the “Bulb Purchasing Guide” on the next page or encourage them to use the Choose a Light tool ([energystar.gov/choosealight](http://energystar.gov/choosealight)), so he/she can learn more about ENERGY STAR lighting and how to choose the right bulbs for the home.



# LED Bulbs Made Easy

## Just Look for the ENERGY STAR<sup>®</sup>



- ★ Independently certified to deliver efficiency and performance.
- ★ Same brightness (lumens), 70–90% less energy (watts)
- ★ Lasts 15 times longer = big \$ savings
- ★ Help protect the environment and prevent climate change

Only LED bulbs that have earned the ENERGY STAR label have been independently certified and undergone extensive testing to assure that they will save energy and perform as promised.

**ENERGY STAR certified LED bulbs** are available in a variety of shapes and sizes for any application—including recessed cans, track lighting, table lamps, and more. You can even find certified bulbs that are dimmable. **Use this chart as a guide to finding the right ENERGY STAR certified bulb for your light fixture and remember to always check the packaging for proper use.**

		BULB TYPES			
TABLE OR FLOOR LAMPS		STANDARD			
PENDANT FIXTURES		STANDARD	GLOBE	MR16	CANDLE
CEILING FIXTURES		STANDARD	CANDLE		
CEILING FANS		STANDARD	CANDLE		
WALL SCONCES		STANDARD	GLOBE	CANDLE	
RECESSED CANS		MR16	SPOT	FLOOD	
ACCENT LIGHTING		MR16	SPOT		

### BRIGHTNESS

For brightness, look for lumens, not watts. Lumens indicate light output. Watts indicate energy consumed. ENERGY STAR certified bulbs provide the same brightness (lumens) with less energy (watts). **Use this chart to determine how many lumens you need to match the brightness of your old standard bulbs.**

Standard Bulbs (Watts)	ENERGY STAR Bulb Brightness (Minimum Lumens)
40	450
60	800
75	1,100
100	1,600
150	2,600

### COLOR/APPEARANCE

ENERGY STAR certified bulbs are available in a wide range of colors. Light color, or appearance, matches a temperature on the Kelvin scale (K). Lower K means warmer, yellowish light, while higher K means cooler, bluer light.

2200K	3000K	3500K	4100K	5000K	6500K
▲ WARM					▲ COOL
Soft White, Warm White Ideal for most indoor applications.		Neutral White, Cool White Good for kitchens and work spaces.		Daylight (think blue sky at noon) Good for reading.	

★ **SAVE:**

- By replacing a home’s five most frequently used light fixtures or the bulbs in them with ENERGY STAR certified lighting, the resident can save \$40 each year. And if every American home replaced just one bulb that has earned the ENERGY STAR, we would save enough energy to light 3.5 million homes for a year and prevent nearly 7 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from 640,000 cars.
- To save more energy, make sure you only have the lights on when you need them.

## ELECTRONICS

	ENERGY STAR	NOT ENERGY STAR
TV		
DVD		
Digital media player		
Cordless phone		
Cable or satellite box		
Computer		
Tablet		
Laptop		
Printer/Scanner/Copier		

Look for the **ENERGY STAR** on products like these:



★ **INVESTIGATE:**

- Ask the resident if the products listed above are ENERGY STAR certified, and check to see if there is a visible ENERGY STAR label. The label might be black, blue, or silver, or it might show up on the screen when the resident turns it on. Remind the resident that it might have been on the box or manual that came with the product. If the resident doesn’t remember and no logo can be found on or related to the product, find the model number and search online using the ENERGY STAR Product Finder at [www.energystar.gov/productfinder](http://www.energystar.gov/productfinder).
- Find out if the computer(s) is set to “sleep” when not in use.

★ **EDUCATE:**

- The ENERGY STAR label on any of these products means it uses less energy than a standard model, which means fewer greenhouse gas emissions.
- Suggest that the resident look for the ENERGY STAR the next time he/she replaces one of his/her electronic products.
- Turning off computers when they’re not in use doesn’t hurt them, and it’s a great way to save energy!
- Enabling an ENERGY STAR certified desktop computer and monitor’s power management features, which put them to sleep when not in use, can save up to \$35 per year.

★ **ACTIVATE:**

- If the resident has a computer and/or monitor, suggest enabling the power management or “sleep” settings, following the directions on the ENERGY STAR website at [www.energystar.gov/products/low\\_carbon\\_it\\_campaign/power\\_management\\_computer](http://www.energystar.gov/products/low_carbon_it_campaign/power_management_computer).

- Suggest that the resident plug office products and home entertainment equipment into power strips so everything can be turned off with the flip of a switch. Turn off equipment at night or when not in use.
- Suggest avoiding high-brightness TV viewing modes like “retail,” “demo,” “vivid,” or “dynamic”. Instead use “standard,” “cinema,” or “movie” modes to save energy. Reducing the brightness of a TV set cuts its energy use by as much as 30 percent.
- Walk around the home with the resident and suggest unplugging any power adapters that are not charging products.

★ **SAVE:**

- If every TV, DVD, and soundbar purchased in the U.S. this year were ENERGY STAR certified, we would save nearly \$220 million and prevent 2.8 billion pounds of greenhouse gas emissions per year, equivalent to the annual emissions of more than 275,000 cars.
- If every home office product purchased in the United States this year earned the ENERGY STAR, we would:
  - Save more than \$300 million in annual energy costs.
  - Prevent nearly 4 billion pounds of greenhouse gases, equivalent to emissions from more than 360,000 cars.
  - Save more than 2.5 billion kWh of electricity.

## APPLIANCES

	ENERGY STAR	NOT ENERGY STAR
Refrigerator		
Clothes washer		
Clothes dryer		
Dishwasher		
Room air conditioner		
Dehumidifier		

Look for the **ENERGY STAR** on products like these:



**INVESTIGATE:**

- Ask the resident if the products listed above are ENERGY STAR certified, and check the products for an ENERGY STAR label. Look on the front of the appliance as well as inside the door. Remind the resident that it might have been on the box or manual that came with the product. If the resident doesn’t remember and no logo can be found on the product, then find the model number and search online using the ENERGY STAR Product Finder at [www.energystar.gov/productfinder](http://www.energystar.gov/productfinder).
- Find out if there’s an old, pre-1993 refrigerator in the basement or garage.



★ **EDUCATE:**

- The ENERGY STAR label on any product means it uses less energy than a standard model, which means lower utility bills and fewer greenhouse gas emissions.
- Next time the resident wants to replace an appliance, recommend looking for the ENERGY STAR.

- Think twice before putting an old refrigerator to use in the garage or basement—operating a refrigerator manufactured before 1993 uses over 1,000 KWh per year to operate.
- The average household spends \$245 per year on water heating—one of a home’s highest energy costs, behind heating and cooling.

★ **ACTIVATE:**

Suggest that the resident:

- Wash laundry with cold water whenever possible, and wait until there’s a full load to start washing.
- Run the dishwasher with a full load, and use the air-dry function if available.
- Scrape food off of plates instead of rinsing them before loading the dishwasher. It will save water and energy.
- Save energy with your water heater by turning down the thermostat to 120 degrees and wrapping it with an insulating jacket. Increased insulation slows heat loss through the walls of the water heater.

★ **SAVE:**

- If all refrigerators sold in the United States were ENERGY STAR certified, the energy cost savings would grow to nearly \$700 million each year and 9 billion pounds of annual greenhouse gas emissions would be prevented, equivalent to the emissions from 870,000 vehicles.

## HEATING AND COOLING

	HAVE YOU:	
	YES	NO
Changed the air filter in the last 3 months?		
Removed leaves, dirt, and other debris from around the outdoor components of the system?		
Had a contractor inspect the duct system for signs of leaks, tears, and disconnections?		
Had the heating and cooling equipment inspected by a professional in the last year?		



Programmable  
Thermostat



Non-Programmable  
Thermostat

★ **INVESTIGATE:**

- Does the home have central air conditioning and/or a forced-air heating system (which means there will be air vents in the home instead of radiators or baseboard heaters)? If yes, go to the next bullet. If no, skip to the third bullet.
- If yes, ask the resident these questions about his/her heating and cooling system:
- If the home does not have central air conditioning and/or forced-air heating, suggest that the resident choose ENERGY STAR when purchasing a new furnace or boiler.
- Ask the resident if he/she has installed a programmable thermostat and programmed it properly. You’ll know it’s a programmable thermostat if it allows you to digitally program in temperatures for specific times of the day throughout the week using a screen and buttons. The home might have a manual thermostat instead, which just has a dial or lever. See the pictures on the right for help.

★ **EDUCATE:**

- Heating and cooling costs the average homeowner a lot of money—about \$930 a year! That’s nearly half of his/her total energy bill.
- Smart thermostats can now earn the ENERGY STAR. A smart thermostat is a Wi-Fi enabled device that can automatically adjust heating and cooling temperature settings for optimal performance. Only ENERGY STAR certified smart thermostats offer demonstrated energy savings and environmental benefits, reliable performance, and convenience, insight and control. Learn more with the factsheet on the next page.
- Using a ceiling fan is a really great way to save energy by circulating the air inside of a room. You can save by turning your thermostat up a little in the summer since the ceiling fan will make you feel cooler. Don’t forget to turn off the fan when leaving the room since ceiling fans cool YOU, not the room.
- The air filters on the furnace need to be checked every month. Replace them if they look dirty, or at least once every 3 months.
- It’s a good idea to have a tune-up on the home’s air conditioning system each spring and on the furnace or boiler each fall; it helps the home’s heating and cooling system work better.
- In homes with forced-air heating or cooling systems, ducts move air to the rooms around the home and return it to the central unit. These ducts are often big energy wasters! You can save up to \$200 a year in heating and cooling costs (or 10 percent on your energy bill) by sealing and insulating your home with guidance from ENERGY STAR.

★ **ACTIVATE:**

- If there is a programmable thermostat, encourage the resident to program it based on whether he/she is at home, away from home, or asleep per the chart below. Staying within a range of these recommended temperatures will provide the most savings. If the home has a manual thermostat, the resident can also manually change the temperature throughout the day based on the same recommendations, but he/she must do this every time to get the savings.
- Suggest the resident consider an ENERGY STAR certified smart thermostat to have even more convenience, savings, and control over his/her home’s heating and cooling.
- If the resident has a ceiling fan, suggest that he/she check to make sure that it is blowing air downward in the summer to help feel cooler. Fans can also be used to pull air up and help circulate warm air in the winter.
- Look around the home at the heat registers and vents—they should be clear of any furniture or rugs. If they are covered or blocked, recommend that the resident keep them clear to improve air flow and comfort.
- When the furnace/air conditioner is on, suggest that the resident go around the home and check how much air is coming out of each register or vent. If there is no air or very little coming out, it could indicate a leak in the system, and the resident should hire a contractor to investigate further.
- Work with resident to remove leaves, dirt, and other debris from around the outdoor components of the system to improve efficiency.

**PROGRAMMABLE THERMOSTAT SETPOINT TIMES & TEMPERATURES**

SETTING	TIME*	IN WINTER	IN SUMMER
Wake		≤ 70° F	78° F
Leave		Set back at least 8° F	Set up at least 7° F
Return		70° F	78° F
Sleep		≤ Set back at least 8° F	Set up at least 4° F

**\*If the resident would like to program the thermostat with you, ask him/her what times best coincide with these settings and use the table to re-program the thermostat.**



# THE SMART CHOICE Made Simple



## ENERGY STAR® Certified Smart Thermostats Deliver:

- ✓ Demonstrated Energy Savings
- ✓ Environmental Benefits
- ✓ Reliable Performance
- ✓ Convenience, Insight, and Control

## When Choosing a Smart Thermostat, Look for the ENERGY STAR

Smart thermostats that earn the ENERGY STAR are third-party certified to:

1. Save energy based on field data collected from more than one thousand homes over an entire year.
2. Quickly enter a low-power standby mode when inactive.
3. Track and report equipment use and temperature data to the homeowner.

## Features of ENERGY STAR Certified Smart Thermostats

ENERGY STAR certified smart thermostats provide convenience, insight, and control. While system designs vary, common smart thermostat features include:

- Allowing you to control home heating and cooling remotely through your smartphone.
- Geofencing, which allows your smart thermostat to know when you're on the way home and automatically adjusts your home's temperature to your liking.
- Learning your temperature preferences and establishing a schedule that automatically adjusts to energy-saving temperatures when you are asleep or away.
- Updating software periodically to ensure your smart thermostat is using the latest algorithms and energy-saving features available.

## Save Money and Stay Comfortable in Your Home

For the average American household, almost half of the annual energy bill goes to heating and cooling – that's more than \$900 a year. Being smart about how you control your temperature settings with an ENERGY STAR certified smart thermostat will help you save money and stay comfortable in your home.

## Save Even More with Utility Rebates

- Utilities or efficiency programs in your area may offer rebates on ENERGY STAR certified smart thermostats: [www.energystar.gov/rebatefinder](http://www.energystar.gov/rebatefinder).
- In addition, in some areas, homeowners with smart thermostats can participate in utility programs that support reliable power for everyone, and earn financial rewards for it.

## What is a Smart Thermostat?

A smart thermostat is a Wi-Fi enabled device that can automatically adjust heating and cooling temperature settings for optimal performance.



## Did You Know?

If everyone used an ENERGY STAR certified smart thermostat, savings would grow to 56 trillion BTUs of energy and \$740 million dollars per year, offsetting 13 billion pounds of annual greenhouse gas emissions.

- Have the resident order EPA's "A Guide to Energy-Efficient Heating and Cooling" from the ENERGY STAR publications website for more information on how to save energy and money and keep his/her home comfortable.

★ **SAVE:**

- If a home's heating and cooling equipment is more than 10 years old, or is not keeping the home comfortable, consider replacing it with a model that has earned the ENERGY STAR. Depending on where you live, replacing your old heating and cooling equipment with equipment that has earned the ENERGY STAR can cut your annual energy bill by more than \$160.
- If everyone used an ENERGY STAR certified smart thermostat, savings would grow to \$740 million per year, offsetting 13 billion pounds of greenhouse gas emissions..

## AIR LEAKS & INSULATION

★ **INVESTIGATE:**

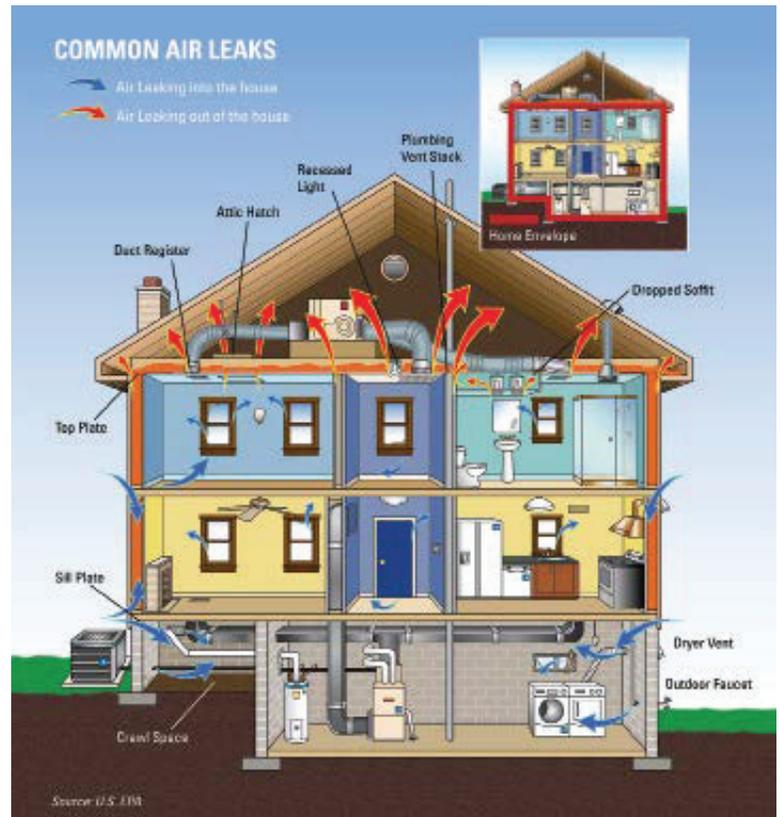
- Ask the resident if he/she often feels drafts in areas around the home.
- Then, use a strong flashlight to find doors that could benefit from weather stripping. When someone is shining the light from outside, if you can see the light between doors and door jambs, weather stripping or a door sweep can be used to help close the gap and keep out drafts.

**DO YOU FEEL AIR LEAKS OR SEE GAPS:**

	YES	NO
Around windows?		
Around the front and back doors?		
Near electrical outlets?		
Near outdoor faucets?		
Around pipes under the kitchen sink?		
Around the dryer vent?		
Around recessed lights?		

★ **EDUCATE:**

- Air leaks, like these shown in the graphic on the following page, waste energy and make a home less comfortable. In fact, the average home has enough air leaks that it is like keeping a window open all year long. There are easy ways to fix leaks with products such as caulk, weather stripping, or spray foam.
- Insulation helps to keep a home warm in the winter and cool in the summer, but most homes today do not have enough insulation in the attic.
- If you're in a colder part of the country, ask the resident if icicles often hang from the roof, or if the snow melts off of the roof earlier than off of neighbors' roofs. This problem may suggest that heat is escaping, and air sealing and additional insulation in the attic may be needed.



- Consumers can save up to \$366 a year (depending on local climate) by replacing single-paned windows with windows that have earned the ENERGY STAR. Also, during cold weather, take advantage of the sun's warmth by keeping drapes open during sunny days. To keep the heat out during the summer, close window shades and drapes in hot, sunny weather.

#### ★ ACTIVATE:

- Have the resident order EPA's "Do-It-Yourself Guide to Sealing and Insulating with ENERGY STAR" from the ENERGY STAR publications website listed on the Resources hand-out at the end of this Check-Up for more information about how to fix air leaks all over the home.
- If the resident has an attic, suggest that he/she check the insulation levels. If the insulation is level with or below the attic floor joists, the home probably needs more.

#### ★ SAVE:

- Residents can save up to 10 percent on a home's energy bill—or up to \$200 a year—by Sealing and Insulating with ENERGY STAR. Homes located in Northern climates can save even more!

## MY ENERGY STAR

Conclude the ENERGY STAR Home Check-Up by thanking whoever participated and encouraging them set up a My ENERGY STAR account. My ENERGY STAR is a free EPA tool that provides comprehensive information on how to save energy and money and help protect the environment. From products to easy tips to bigger projects, My ENERGY STAR provides comprehensive guidance on ways to save and helps you track your progress with "to do" and "completed" lists and stars you can earn based on your energy savings. Go to [energystar.gov/myenergystar](https://energystar.gov/myenergystar) and demonstrate how easy it is to get started.

Thanks for making a difference with ENERGY STAR!