

# Everyday People & Sustainability:

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## Resident Role in Green Building

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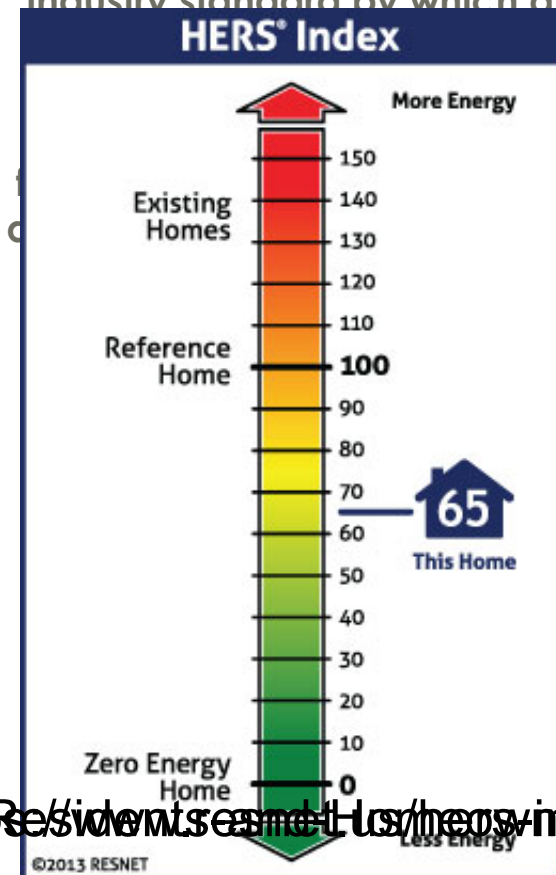
# Home Energy Rating Service (HERS)



- What is a HERS Rating?
- What is the role of a HERS Rater?
- What are the benefits of having your home rated?
- What kind of dwellings can be rated?
- What incentives are available for HERS rating?



The Home Energy Rating System (HERS) Index is the industry standard by which a



<https://www.nyscrda.ny.gov/Residents/energy-winter/index>

# Leadership in Energy & Environmental Design



- LEED Rating Systems
- Certification programs developed by the USGBC
- LEED for Homes v4



Integration & Innovation  
Location & Transportation  
Sustainable Sites  
Water Efficiency

Energy & Atmosphere  
Materials & Resources  
Indoor Air Quality  
Awareness & Education



# TOP 10 WAYS TO SAVE



1. Set thermostats to **70°F** or lower in winter and **75°F** or higher in summer
2. Keep windows **closed** and **locked** when heating or cooling is on
3. Run **full loads** when using dishwasher and washing machine
4. Use **cold** water for laundry
5. Reduce shower time to **5 minutes**
6. Turn **off** electronics when not in use
7. Turn **off** lights when you leave the room
8. Report **water leaks**
9. Use blinds or shades
10. Turn **off** the faucet when brushing teeth



# Water Efficiency

WaterSense certified or water-efficient (low-flow) faucets, toilets, and showerheads. ENERGY STAR® certified dishwashers and clothes washers.

The U.S. Environmental Protection Agency developed these labels to show consumers which products use at least 15% less than a similar new product.



**The average American  
uses 140-170 gallons of  
water per day.**



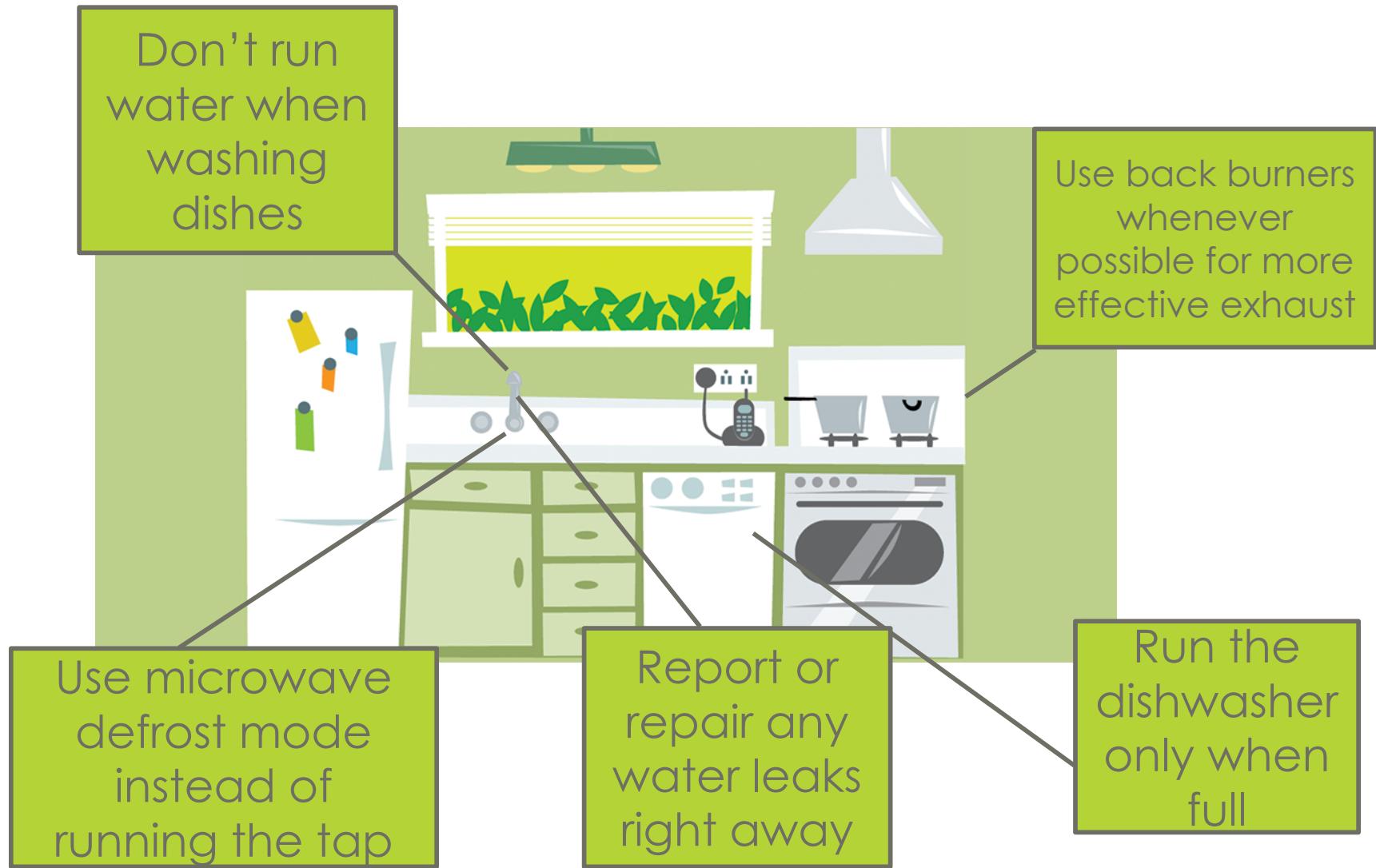
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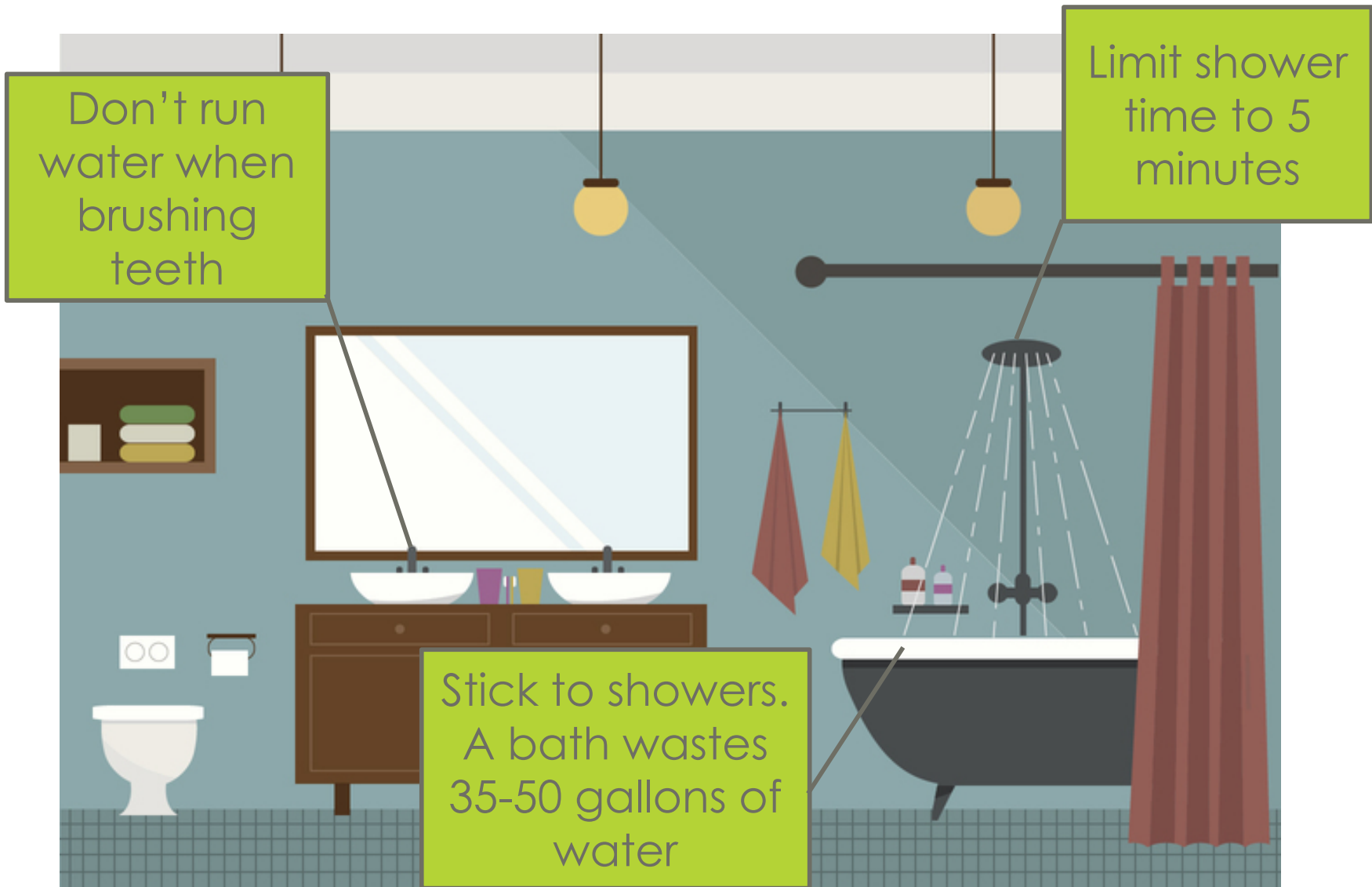
# What you can do: Kitchen



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# What you can do: Bathroom



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# What you can do: Laundry

Full loads of laundry **save** water, energy and money

Use **cold** water instead of hot



White vinegar is **safer** than chlorine bleach to whiten clothes



Cleaning the lint screen in the dryer after every use **saves** energy and money





# Energy [efficiency] and atmosphere



Did you know that 85-90% of the energy used in a washing machine is on heating the water?

Worn or torn weather stripping around doors and windows can result in 7-12 percent of a home's heat loss.

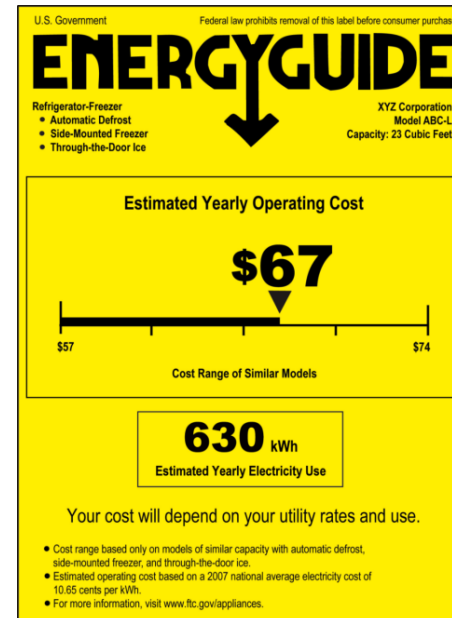


New York uses the least energy per capita than any other state in the U.S.



# What you can do: Energy Guide Labels

Appliances, heating, cooling, and hot water equipment in your home likely have an **Energy Guide** on the equipment or online.



ENERGY STAR compares a product to others just like it while **Energy Guide** lets you see the true cost of each product.



# Understand your consumption



## UtilityBill

SERVICE FOR  
JOHN SMITH  
500 MAIN ST  
ALBANY NY 12000

BILLING PERIOD  
Jan 14, 2014 to Feb 12, 2015  
ACCOUNT NUMBER  
00001-2345

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**Electric Service Classification:** Classification (residential or commercial) is considered when determining system size and incentive levels.

**Basic Service:** A charge to cover costs for meter reading, billing, equipment, and maintenance. This charge is the same regardless of how much energy is used during the billing period. You will still see this fixed cost even if your solar electric system offsets 100% of the kWh that you use.

**Delivery:** Charge for bringing electricity from your supplier to your premise, regardless of supplier.

**Electricity Supply:** The price of electricity supply used during the billing period. If you choose an alternate supplier, the price will reflect what you agree upon with that supplier.

**kWh:** The unit of electricity usage measured by your meter. One kilowatt-hour (kWh) equals 1000 watts-hours, and will light a 100-watt bulb for 10 hours. The number of kWhs is used to determine the electricity charges on your bill.

### DETAIL OF CURRENT CHARGES

#### Delivery Services

Service Period	No. of days	Current Reading	Previous Reading	Total Usage
Jan 14 - Feb 12	29	35775 Actual	35463 Actual	312 kWh

METER NUMBER 1155224433      NEXT SCHEDULED READ DATE Mar 17

RATE	Electric SC1 Non Heat		
	Basic Service (not including usage)		17.00
	Delivery	0.04244 X 312 kWh	13.25
	Market Settlement	0.00029 X 312 kWh	0.09
	Incr State Assessment	0.00307 X 312 kWh	0.96
	SBC/RPS	0.007911 X 312 kWh	2.46
	Legacy Transition Charge	-0.006794 X 312 kWh	-2.13
	RDM	-0.00103965 X 312 kWh	-0.32
	Transmission Rev Adj	0.00007 X 312 kWh	0.02
	Tariff Surcharge	2.04082 X 312 kWh	0.63
	<b>Total Delivery Services</b>		<b>\$ 31.96</b>

#### Supply Services SUPPLIER Utility Bill

Electricity Supply	0.19136 X 312 kWh	59.70
Merchant Function	0.00590024 X 312 kWh	1.84
ESRM	-0.071046 X 312 kWh	-22.16
<b>Total Supply Services</b>		<b>\$ 39.38</b>

#### Other Charges/Adjustments

Paperless Billing Credit		-0.40
<b>Total Other Charges/Adjustments</b>		<b>-\$0.40</b>

A solar electric system will reduce the amount of electricity (kWh) that you purchase. All charges that are calculated per kWh will also decrease as you reduce your electrical supply consumption.



# What does kWh mean?

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Kilowatt hours (kWh) are the measure that is used on your electricity bill.

A kilowatt (kW) is 1000 watts of electrical power.

For example: If you run a 1000 watt fan for one hour, you used 1 kWh.





# How to reduce consumption

**How much energy you save is primarily dependent on your behavior and choices.** You are in control of your energy use! Follow these tips for best results.

1. Utilize **natural daylight** by opening shades
2. **Turn off lights** every time you leave a room
3. **Unplug** ALL unused appliances
4. Learn how to **control your systems**
5. Benchmarking: **Track** your usage
6. Calculate your **carbon footprint**
7. Maintain/**clean** your home & systems



Visit

[www.wegowise.com](http://www.wegowise.com)

[www.nature.org/greenliving/carboncalculator](http://www.nature.org/greenliving/carboncalculator)

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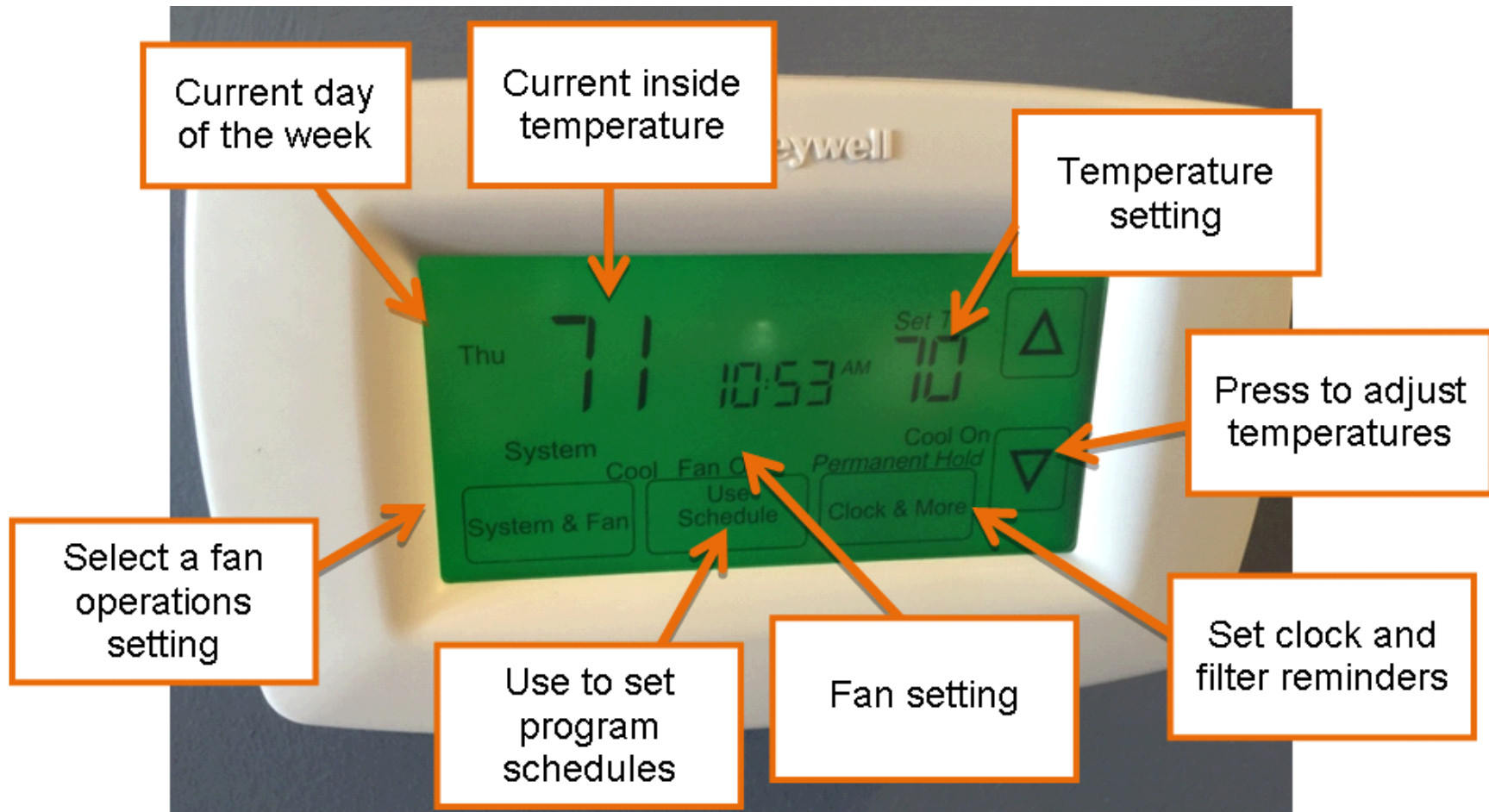
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# How to read your thermostat



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# Indoor Air/Environmental Quality

Research indicates that people spend approximately 90% of their time indoors.



- Range: ALWAYS use fan; use **back burners** whenever possible for more effective exhaust
- Turn on your **bathroom exhaust fan** and leave on for at least **20 minutes** after occupancy/shower
- Use non-toxic cleaning products to keep your home clean and you safe & healthy



## Select products labeled...

- Unscented
- Concentrated
- Biodegradable
- Non-toxic
- Low or no-VOC
- Phosphate free
- GreenSeal Certified
- Safer Choice

## Avoid products labeled...

- Anti-bacterial or anti-microbial
- Highly flammable/combustible
- Danger/Hazard
- Poison
- Corrosive
- Chlorine bleach
- Ammonia

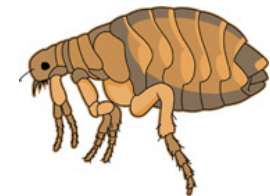
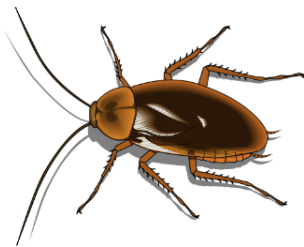
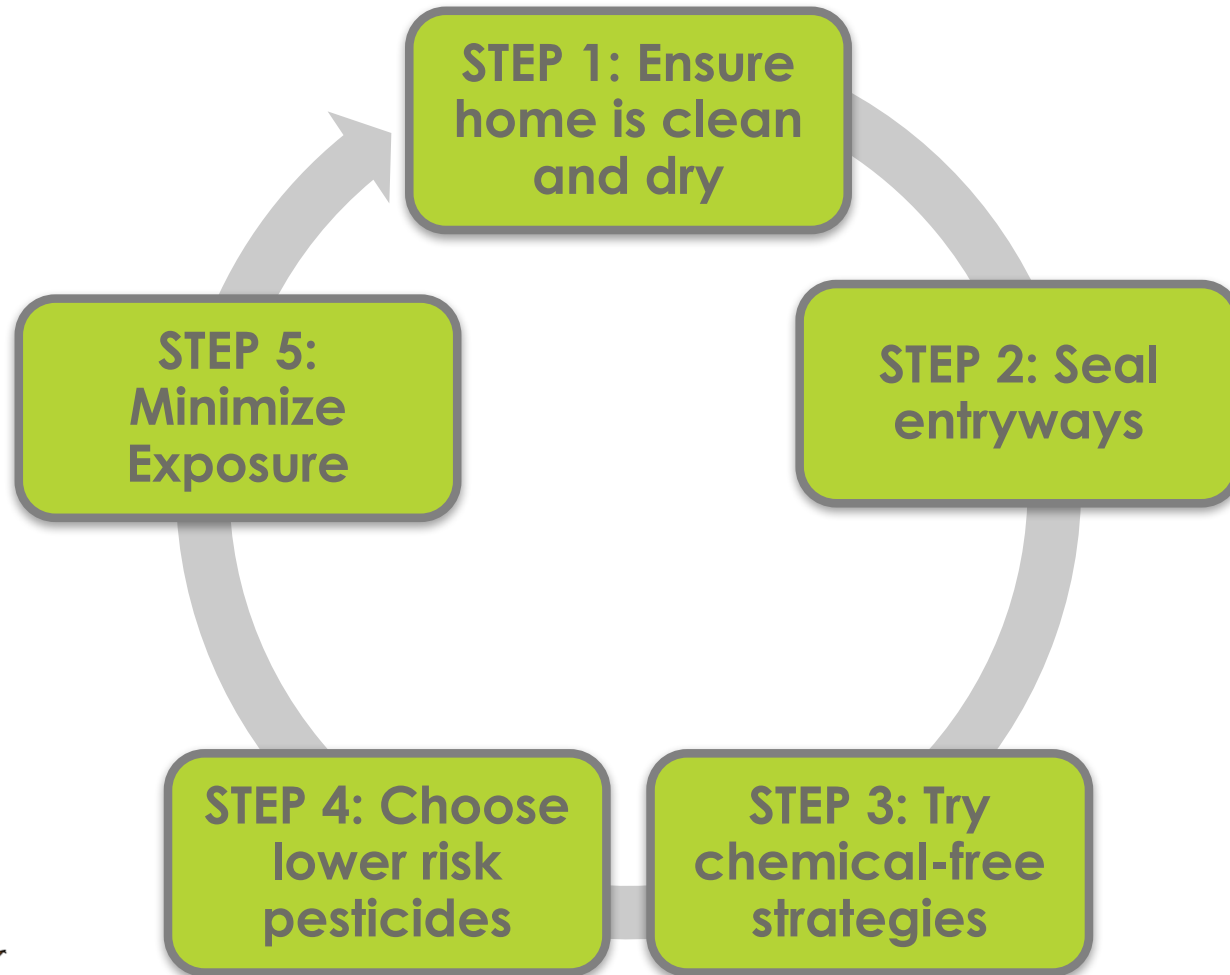
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# Pest prevention strategies







# Recycling

**Separate** trash from recycling from compost  
Observe **recycling rules** in your area – Single stream or self-separate? Plastics #1-7? Rinse first!

## Common things you **can't** recycle:

### Cardboard **NO**:

- mixed with plastic (i.e. bubblewrap boxes)
- waxed/waterproof cardboard
- dirty/oily

### Paper **NO**:

- napkins
- tissue paper
- paper towels
- wax paper
- wrapping paper

### Hazardous Waste **NO**:

- antifreeze
- most types of batteries
- paint
- flammable items
- electronics
- CFLs



# Composting for apartment-dwellers



Composting is a great way to divert food waste from going to landfills.

**Vermicomposting** system: A composting system using worms to turn organic waste into fertilizer.

House **plants** that are easy to maintain and help improve indoor air quality:

Spider plant, Peace lily, Dracaena, Aloe Vera, Snake plant, Ficus



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### Selecting the Proper CONTAINER

 <p><b>CARDBOARD</b> Absorbent, vulnerable to rot. <b>TIP:</b> Monitor the conditions of your composter closely to make sure humidity is at appropriate levels.</p>	 <p><b>PLASTIC / POLYSTYRENE</b> Non-absorbent, easy to clean. The most popular. <b>TIP:</b> Add more drainage holes to prevent soil from getting too wet.</p>	 <p><b>WOOD</b> Absorbent, good drainage. <b>TIP:</b> Choose hemlock or Western Red Cedar for a rot resistant composter that won't leach oils that will harm your worms. (avoid yellow cedar &amp; redwood).</p>	 <p><b>METAL</b> Non-absorbent, rusts, could release heavy metals. <b>TIP:</b> Add more drainage holes to prevent soil from getting too wet.</p>
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### PROPER FOOD For Your Worms

 <p><b>ALWAYS</b> * Fruit &amp; veggies * Coffee grounds, filters, tea bags</p>	 <p><b>SOMETIMES</b> * Grass &amp; garden clippings * Rinsed egg shells</p>	 <p><b>NEVER</b> * Meat, bones, &amp; dairy products * Heavily coated paper</p>
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More information: [www.ecowatch.com](http://www.ecowatch.com)

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# Safety measures

Carbon Monoxide (CO) is an odorless, colorless and tasteless gas that is **toxic to humans at concentrations above 35 ppm** (parts per million).

**Never disconnect** a carbon monoxide or smoke detector; it could save your life!

Familiarize yourself with all **emergency exits** and locate **extinguishers**.

At least **twice** per year, test your CO and smoke detectors





# Share the knowledge

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The single most powerful thing we each can do to combat climate change is to pass on information to others; creating **awareness** and **education** about living sustainably.

## Thank you!

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Sustainability Consultant

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[www.tinycreekliving.com](http://www.tinycreekliving.com)



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Laundry room – slide 59

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