

HOW TO BE A GREENER HOMEOWNER

Your home may be the best place to begin to educate your family about making sustainable choices. At home, the biggest impact we have on the environment is through our use of energy and water.

SAVE ENERGY

- Set your computer on sleep mode or turn it off when not in use.
- Upgrade your appliances to Energy Star™ certified appliances.
- Make sure to keep your home air tight by weatherizing, weather stripping and sealing.
- Clean refrigerator coils as needed.
- Install outlet insulation to prevent warm or cold air from infiltrating your home.
- Switch all light bulbs to CFL (Compact Fluorescent) bulbs or LED lighting.
- Turn off the lights when you aren't in the room.
- Place equipment on power strips and turn the power strip off before going to bed to reduce the amount of phantom load energy use.
- Unplug appliances and equipment that are not used often.
- Set your thermostat as low as is comfortable in the winter and as high as is comfortable in the summer.
- Clean or replace filters on furnaces once a month or as needed.
- Clean warm-air registers, baseboard heaters, and radiators as needed; make sure they're not blocked by furniture, carpeting, or drapes.
- Place heat-resistant radiator reflectors between exterior walls and the radiators.
- Turn off kitchen, bath, and other exhaust fans within 20 minutes after you are done cooking or bathing; when replacing exhaust fans, consider installing high-efficiency, low-noise models.
- During the heating season, keep the draperies and shades on your south-facing windows open during the day to allow the sunlight to enter your home and closed at night to reduce the chill you may feel from cold windows.
- During the cooling season, keep the window coverings closed during the day to prevent solar gain.
- Wash clothes in cold water whenever possible to save water heating costs.
- Program your thermostat to lower at night in the wintertime and rise during the summertime to save heating and cooling costs. By turning your thermostat back 10–15° for 8 hours while you're asleep, you can save about 5–15% a year on your heating bill (EERE).
- Insulate hot water pipes and hot water heater, and turn down your water heater to at least 120 degrees. For each 10°F reduction in water temperature, you can save between 3–5% in energy costs.

SAVE WATER

- Hand-wash dishes rather than using a dishwasher. The average washing machine uses 40.9 gallons of water per load.
- Fix leaky toilets, pipes and water fixtures. A leaky toilet can waste about 200 gallons of water every day (US EPA).
- Try to take showers rather than baths. A full bath tub requires about 70 gallons of water, while taking a five-minute shower uses 10 to 25 gallons (US EPA).
- Turn off water in the middle of brushing your teeth or washing dishes. Turning off the tap while brushing your teeth in the morning and at bedtime can save up to 8 gallons of water per day, which equals 240 gallons a month (US EPA)!
- Use drip irrigation to water your garden and only water plants that need it. The typical single-family suburban household uses at least 30% of their water outdoors for irrigation. Some experts estimate that more than 50% OF landscape water use goes to waste due to evaporation or runoff caused by over-watering (US EPA).
- Replace your toilet with a low-flush toilet (1.2 gallons or less). Compared to a 3.5-gallons-per-flush toilet, a WaterSense-labeled toilet could save a family of four more than \$90 annually on their water bill, and \$2,000 over the lifetime of the toilet (US EPA).
- Replace your appliances with water-efficient equipment – washing machine especially! Energy Star™ rated washers that also have a Water Factor at or lower than 9.5, use 35%-50% less water and 50% less energy per load. This saves you money on both your water and energy bills (energystar.gov).
- Install a rain barrel in your garden for watering your garden.
- Purchase low-flow faucets and make sure that your faucet contains an aerator.

REDUCE WASTE AND RECYCLE

- Take reusable bags to the grocery store or mall rather than using the store's plastic bags.
- Make sure you have a curbside recycling pick-up and educate your family about what is recyclable and what is not.
- Compost your food scraps in your backyard.
- Recycle your spent light bulbs, batteries, ink toners and cartridges, paints, and old electronics.
- Donate unwanted items to a local resale shop or charity.

Reduce: (1) Buy permanent items instead of disposables; (2) Buy and use only what you need; (3) Buy products with less packaging; (4) Buy products that use less toxic chemicals.

Reuse: (1) Repair items as much as possible; (2) Use durable coffee mugs; (3) Use cloth napkins or towels; (4) Clean out juice bottles and use them for water; (5) Use empty jars to hold leftover food; (6) Reuse boxes; (7) Purchase refillable pens and pencils; (8) Participate in paint collection and reuse programs.

Recycle: (1) Recycle paper, plastic, glass bottles, cardboard, and aluminum cans. If your community doesn't collect at the curb, take them to a collection center; (2) Recycle used motor oil; (3) Compost food scraps, grass and other yard clippings, and dead plants. (4) Close the loop – buy recycled products and products that use recycled materials.

PREVENT POLLUTION

- Use nontoxic soaps to wash dishes and items throughout your home and use green or sustainable cleaners.
- Drive only when necessary. Bike, walk or take mass transportation if possible. Cars emit tremendous amounts of pollutants, which increase acid rain; they also deposit toxic metals and petroleum byproducts into the environment.
- Recycle used oil and antifreeze by taking them to service stations and other recycling centers. Never put used oil or other chemicals down storm drains or in drainage ditches. One quart of oil can contaminate up to two million gallons of drinking water (US EPA)!
- Look for alternatives to products that contain the words "toxic, flammable, caustic, corrosive, caution, danger, warning, or poison" on the label.
- Instead of using bleach for cleaning clothes, kitchens and bathrooms, use white vinegar or baking soda and water.
- In place of glass cleaners, use a solution of 1 tbsp of vinegar or lemon juice in 1 qt of water. Spray on and use old newspapers to wipe.
- Use microfiber cloths that eliminate the use of any household cleaners.
- For a drain cleaner, use vinegar and baking soda followed by boiling water.
- For furniture polishes, mix one tsp lemon juice in 1 pt of mineral or vegetable oil, and wipe furniture with a rag.
- Select water-based latex paints whenever possible. Use nontoxic inks and art supplies.
- Keep your house clean and free from food crumbs and block pest hiding places and entry points.

LANDSCAPING & GARDENING

- When landscaping your yard, select plants that have low requirements for water, fertilizers, and pesticides.
- Cultivate plants that discourage pests. Minimize grassed areas that require high maintenance.
- Preserve existing trees, & plant trees & shrubs to help prevent erosion and promote infiltration of water into the soil.
- Use landscaping techniques such as grass swales (low areas in the lawn) or porous walkways to increase infiltration and decrease runoff. Other landscaping tips: (1) Install wood decking or bricks or interlocking stones instead of impervious cement walkways; (2) Install gravel trenches along driveways or patios to collect water and allow it to filter into the ground; (3) Restore bare patches in your lawn as soon as possible to avoid erosion; (4) Grade all areas away from your house at a slope of one percent or more.
- Leave lawn clippings on your lawn so that nutrients in the clippings are recycled and less yard waste goes to landfills.
- If you elect to use a professional lawn care service, select a company that employs trained technicians and follows practices designed to minimize the use of fertilizers and pesticides.
- Compost your yard trimmings. Compost is a valuable soil conditioner which gradually releases nutrients to your lawn and garden. (Using compost will also decrease the amount of fertilizer you need to apply.) In addition, compost retains moisture in the soil and thus helps you conserve water.
- Spread mulch on bare ground to help prevent erosion and runoff.
- Test your soil before applying fertilizers. Over-fertilization is a common problem, and the excess can leach into ground water or contaminate rivers or lakes. Also, avoid using fertilizers near surface waters. Use slow-release fertilizers on areas where the potential for water contamination is high, such as sandy soils, steep slopes, compacted soils, and verges of water bodies. Select the proper season to apply fertilizers; incorrect timing may encourage weeds or stress grasses. Do not apply pesticides or fertilizers before or during rain due to the strong likelihood of runoff.

(Sources: EERE, US EPA, Sustainable Stanford, San Francisco Green Business Program, Maryland Department of the Environment)