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**Challenge: Start composting!**

**Reward:** Recycle valuable nutrients and enrich your soil/gardens organically while reducing waste.

*Background Info:*

- Food scraps and yard waste make up 20-30% of the waste stream.
- All you need is a container inside (e.g., a simple Tupperware-like container under the sink) and a compost bin outside.
- Live in an apartment or condo? Bring your food scraps to church! We will have a composting bin outside the kitchen door.

*More Info:*

<https://extension.umn.edu/how-manage-soil-and-nutrients-home-gardens/composting-home-gardens>

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**Challenge: Plant or Expand Your Vegetable Garden**

**Reward:** Provide you and your family with organic, healthy, VERY local produce, strengthening your bond with the Earth and reducing your carbon footprint associated with commercial production.

*Background Info:*

- The federal “Center for Nutrition Policy and Promotion” dietary guidelines call for 5 to 13 servings of fruits and vegetables a day.
- Minnesota offers the opportunity to grow many delicious and nutritious fruits and vegetables.
- Gardening not only provides wonderful food, but also provides opportunities for exercise, reflection, and connection to nature.

*More Info:*

<https://extension.umn.edu/planting-and-growing-guides/planting-vegetable-garden>

TRANSPORTATION

**Set a goal of** driving less and walking, biking, busing and using light rail more. In the U.S. 28% of our energy use goes to transportation and 95% of our transportation is fueled by petroleum. Driving less is one of the single most important things you can do. Here are some options:

- **Consolidate trips.** Make a challenge of it, record how many miles you drive one week and then try and reduce it 10% each week.
- **Get an odometer for your bike** and record how many miles you put on it. Try to increase it 10% each week.
- **Have a “carbon neutral” date night.** Walk or bike to a restaurant.
- **Try to go car-free** one day a week.
- **See how many different forms of transportation you can use** in a week *besides* driving.
- **Make the journey part of your day**, not just a means to an end.
- **Ride the bus more.** Buses are great places for reading, texting and people watching.
- **Set the cruise control a few miles per hour UNDER the speed limit** on trips. This will greatly increase your mileage.

REDUCE YOUR ELECTRICAL ENERGY CONSUMPTION

**Challenge #1:** Replace heat-producing, inefficient incandescent light bulbs with compact fluorescent bulbs (CFL) or LED (light-emitting diode) bulbs. During the longer periods of daylight in the summer, turn off lights as often as possible.

**Challenge #2:** Use your electric clothes dryer less often by hanging clothes on an outdoor line.

**Challenge #3:** Raise the setting on air conditioning units or central air conditioning systems; turn off AC when possible.

**Reward:** Less fossil-fuel energy used, lower energy bills, and lighter carbon

## footprint.

### *Background Information:*

Carbon footprint is the amount of carbon dioxide (CO<sub>2</sub>) and other gases emitted from a product or activity. CO<sub>2</sub> is a greenhouse gas that traps heat and contributes to climate change. Each U.S. household produces about 150 pounds of CO<sub>2</sub> a day through energy use.

Electric clothes dryers emit more than 1,500 pounds of carbon dioxide a year. Central air conditioning emits more than 4,000 pounds, and window AC units emit 872 pounds; indoor lighting emits almost 2,300 pounds a year.

Setting an AC unit or system to 78 degrees or higher creates significant savings on energy bills.

By some estimates, raising the temperature from 72 to 78 degrees can save 10 percent on energy costs. Compact fluorescent bulbs use one-third the energy of incandescents and last about 6 times longer, so they pay for themselves in about 6 months. Changing one light bulb can save \$40 over the lifetime of the bulb, according to Energy Star data. CFLs also produce 75 percent less heat.

Much of the energy used in Minnesota is generated by CO<sub>2</sub> producing fossil fuels.

### *More Information:*

To learn more about energy conservation, visit the Minnesota Department of Commerce's energy website at <https://mn.gov/commerce/home-energy/> or [energystar.gov](http://energystar.gov).

Contact Xcel Energy ([xcelenergy.com](http://xcelenergy.com)) or your utility company for a home energy audit to learn ways to reduce your energy use. Xcel Energy also offers its Saver's Switch® program; residential customers save on their June through September energy bills each year. The program allows Xcel to turn off your central air-conditioning system for brief periods of the day.

FALL: WATER USE; PREPARING FOR COLD WEATHER

REDUCE WATER USAGE IN YOUR HOME

**Challenge #1:** Be mindful of water consumption, by taking shorter showers and turning on water faucets for as short a time period as possible.

**Challenge #2:** Install efficient shower heads and sink faucets.

**Challenge #3:** When replacing appliances, install water-saving toilets, dishwashers, and clothes washers.

**Reward:** Save money on water bills and help preserve a valuable resource.

*Background information:*

Water is becoming an increasingly scarce resource in many parts of the United States and the world. More and more water is needed for industrial use and agriculture to meet the needs of a growing population. Water pollution and long-term drought are also placing pressure on water use, even in states such as Minnesota, despite its abundance of lakes and rivers.

Lester Brown, author and environmentalist, states that many countries, including the United States, are water-stressed; they are pumping water out of aquifers faster than rain is replenishing them.

According to the EPA, an American family of four can use about 400 gallons of water a day. Much of our household water is used for cooking, washing (showers/baths), and toilets. Water-efficient products and practices are practical ways to save. For example, according to ENERGY STAR: *“A full-sized ENERGY STAR certified clothes washer uses 15 gallons of water per load, compared to the 23 gallons used by a standard machine. Over the machine’s lifetime, that’s a savings of 27,000 gallons of water.”*

Americans use a great deal of water in indirect ways as well: a cup of coffee takes 55 gallons of water to make, with most of that used to grow the coffee beans, and a gallon of gasoline takes nearly 13 gallons of water to produce (environment.nationalgeographic.com).

*More information:*

For more on energy efficient practices and products, visit these EPA and ENERGY STAR websites: <http://www.epa.gov/WaterSense/product-search>;

<http://www.energystar.gov/products>

**Challenge:** Prepare your home for winter

- Caulk and/or weatherstrip areas of heat loss around doors and windows and around outdoor faucets
- Have your fireplace checked for safe use
- Have your furnace serviced (this can also be an opportunity to check the efficiency and age of the furnace and consider installing a more efficient

- system)
- Clean gutters of leaves and debris (helps prevent ice damage)
- Add insulation:
  - Place foam or other types of insulation around water pipes in basements or in unheated areas of your home
  - Add insulation in your attic
- Install a programmable thermostat to lower heat during the night and while away from home

*Background:*

Attics provide space to install energy-saving insulation. In attics, insulation can provide R-values of R-30 to R-60, compared with foundations, walls, and windows, which usually provide R-5 to R-25. (An insulating material's resistance to conductive heat flow is measured or rated in terms of its thermal resistance, or R-value. The higher the R-value, the greater the insulating effectiveness.)

Insufficient insulation also can cause heat to collect in an attic, melting snow on the roof. Melting snow then collects on roof edges, refreezes, and causes ice dams. As water collects behind this dam on the roof, it can seep into a house, causing damage. Gutters filled with leaves and debris can contribute to ice dams by preventing water from flowing off roof.

For more information: <http://energy.gov/energysaver/articles/insulation>

WINTER: THE HOLIDAYS; OUR FOOD CHOICES

**Challenge:** Reduce consumption and waste during the holidays

**Donate time and money to charities**

- Give handmade durable gifts, not short-term, disposable items. Think about the "life" of the gift.
- Support local businesses and purchase fair-trade gifts.
- Consider memorable, experiential gifts (e.g., tickets to a show) rather than material gifts.
- Avoid purchasing items with excessive packaging materials (especially plastics and Styrofoam).
- Use less wrapping paper and ribbons (e.g., reusable gift bags work well for many items), reuse wrapping materials, and recycle when possible. If buying wrapping paper, purchase the kind with no or little glitter or reflective areas (so it can be recycled in Minneapolis).

- Give donations to quality charitable organizations rather than buy gifts (ideas and resources below).
- Donate time to an organization or to a friend/neighbor who could benefit from your help.
- Donate blood during the holidays.
- Save energy: use efficient LED lighting for the holidays, with an on-off timer.
- Bring your reusable shopping bags to the store.

**Charitable Organizations:**

- St. John's is involved in a number of organizations that accept donations of time and money, such as Urban Homeworks and TRUST: [urbanhomeworks.org](http://urbanhomeworks.org), and [trustinc.org](http://trustinc.org)
- Episcopal Relief and Development: [episcopalrelief.org](http://episcopalrelief.org)
- Red Cross: [redcross.org/mn/minneapolis](http://redcross.org/mn/minneapolis)
- A source for finding a credible charity is Charity Navigator: [charitynavigator.org](http://charitynavigator.org)