

## Environmental Education: Climate Action

### Energy Detective Scavenger Hunt

#### Background Information

Building energy use is one of the region's greatest source of community greenhouse gas (GHG) emissions. Approximately 33% of GHGs come from buildings, such as homes and school. The majority of these emissions can be attributed to the burning of fuels like natural gas and oil to provide heating and hot water.

Much of our building energy use could be unintentional and unnoticed such as heat leaking from windows, using more hot water than necessary, appliances or electronics drawing energy when not in use. Tracking down all the things in our buildings or homes that use energy can help guide ways to reduce energy consumption and GHG emissions. Become an energy detective and track down all the places you use energy at home.

#### Warm-Up

Without looking at the activity to follow, brainstorm all the things in your house that you think use energy. Write ideas down on a piece of paper or discuss verbally. Once you complete your energy detective activity compare how many things in your house use energy to what you originally thought.

#### Activity Instructions

##### **Follow clues and gather evidence to find energy users in your house!**

Energy is used to "do work." In our homes, that work could be to create light, cook, heat or cool, create sound or video. The first step to reducing or changing our energy use is to find where and how we use energy in the first place. Use the provided scavenger hunt to record your observations and help guide ideas and discussions about how to reduce home energy use.

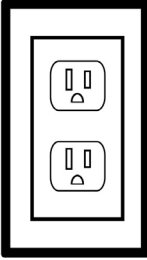
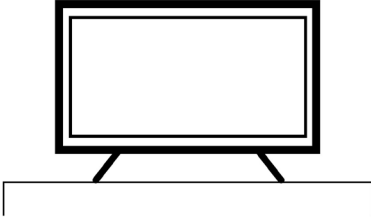
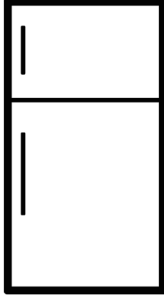
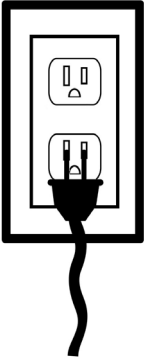
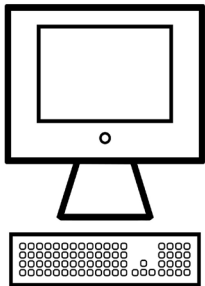
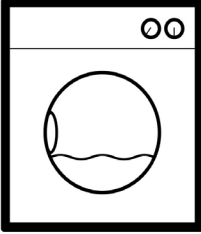
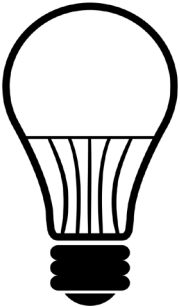
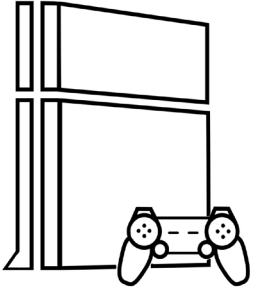
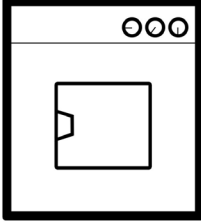
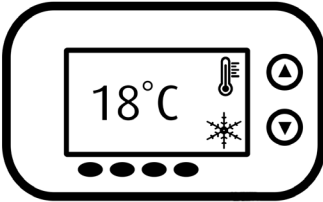
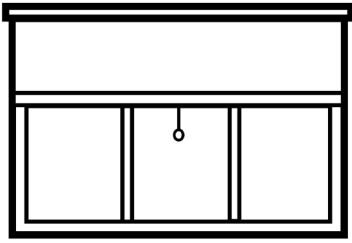
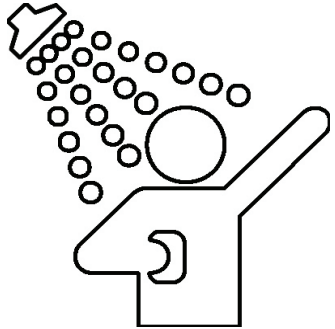
Check with an adult before starting as their assistance may be required for some evidence gathering.

#### Expand and Connect

- Challenge yourself! Pick something to adjust or change at home to reduce household energy use.
- Continue your quest to reduce your climate impact and complete some of our active travel activities to learn about ways to reduce are biggest contributor of GHGs — transportation.
- Waste is the region's third largest contributor of GHGs. Complete activities and learn about waste and the 3Rs (reduce, reuse, recycle).
- Borrow a [Climate Action To-Go Kit](#) from your local library and use the tools provided to discover air leaks in walls and around windows, measure your home's optimal lighting or check appliance electricity use.
- Use this [vampire power calculator](#) to estimate how much power your home appliances and electronics draw when not in use.

For more information about climate action in the region visit [www.crd.bc.ca/climate](http://www.crd.bc.ca/climate).

# Energy Users Evidence Log

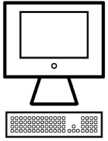
<input type="checkbox"/>  <p>Number of outlets in house: _____</p>	<input type="checkbox"/>  <p>Number of televisions: _____</p>	<input type="checkbox"/>  <p>Number refrigerators: _____ Number of freezers: _____</p>
<input type="checkbox"/>  <p>Number of things plugged in: _____</p>	<input type="checkbox"/>  <p>Number of computers, laptops and tablets: _____</p>	<input type="checkbox"/>  <p>Hot or cold water for washing: _____ Number of loads per week: _____</p>
<input type="checkbox"/>  <p>Number of light bulbs: _____</p>	<input type="checkbox"/>  <p>Number of gaming systems: _____</p>	<input type="checkbox"/>  <p>Number of loads per week: _____</p>
<input type="checkbox"/>  <p>Thermostat temperature: _____ Average time heating/cooling system is on: _____</p>	<input type="checkbox"/>  <p>Number of windows: _____ Number curtains/blinds: _____</p>	<input type="checkbox"/>  <p>Number of showers/baths: _____ Average shower time: _____</p>

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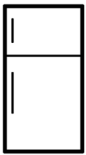
### Energy Detective Notes



- Unplug electronics that are not in use or not used often.
- Plug electronics into a power bar that can be easily switched on and off.
- Avoid leaving things plugged in that use standby power (sometimes called phantom power or vampire power).



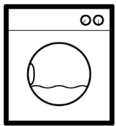
- Use smaller appliances and electronics when possible. For example, use a toaster oven, slow cooker or microwave instead of a full-sized oven. Use a laptop or tablet instead of desktop computer.



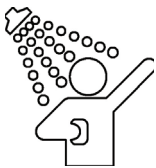
- Don't stand with the fridge door open. Up to 30% of the cold air can escape and more energy will be needed to cool down the inside of the fridge again.



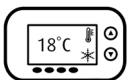
- When replacing light bulbs consider energy efficient bulbs such as LED or CFL.
- Turn lights off when you're not in the room.
- During the day open your blinds and curtains for natural light instead of using lamps.



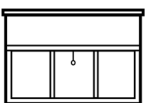
- Wash clothes in cold water (hot water uses more energy).
- Only laundry when you have a full load.
- Hang clothes to dry.



- Shorten your showers. Hot water uses a lot of energy. Start with 1 minute shorter and see if you can eventually get down to a 5-7 minute shower.
- Don't leave the water running before getting in and out of the shower.
- Install a low flow showerhead to use less water.



- Turn the thermostat down at night or during the day if no one is home.
- Put on a sweater instead of turning up the heat.



- Consider opening or closing windows and blinds to help regulate temperature instead of using home heating and cooling systems.