

ENERGY & WATER

CONSERVATION TOOLKIT

In partnership with the Red Deer Public Library and in support of The City of Red Deer Environmental Master Plan



GOAL

- ✓ **REDUCE ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS**
- ✓ **REDUCE POTABLE WATER CONSUMPTION**

TOOLKIT



INFRARED (IR) THERMOMETER

Follow these steps to use the IR thermometer.

- 1** Check that camera contains one (1) 9V battery. Behind green button, pull yellow portion of handle to expose battery.
- 2** Press green button on back to activate the thermometer.
- 3** Point in direction of selected item and hold down green button. A small red laser should indicate the specific point that will be measured.
- 4** Hold button and move thermometer to scan for temperatures. Release button to 'Hold' the temperature on specific items or points on the wall.
- 5** It is best to stand within 1.5m of the object you are measuring for best results. If not possible, always stand at the same distance when measuring that object for best accuracy.
- 6** Record and keep track of the problem areas as you move through each room, careful to note temperature differences between top and bottom of walls or around windows.

Safety Tip: Class II Laser, do not stare into beam.

User Tip: Thermometer cannot detect temperature through glass (ie. windows) accurately. Always use on a solid surface.



KILL-A-WATT® METER

Follow these steps to find out how much energy your appliances and electronics use.

- 1 Plug the Kill-A-Watt® Meter into a standard wall outlet. Choose an outlet that is not blocked by anything and allows you to easily read the display screen.
- 2 Display button functions include:
 - A. Menu- Cycles through the different categories
 - B. Up and Down- Allows you to change the settings within a category
 - C. Reset- Hold button to reset Elapsed Time, Cost and kWh
 - D. Set- Hold this button to change the electricity rate and then press again to save the number. This value can be found on your utility bill.
- 3 Once plugged into outlet, plug an appliance or electronic device into the Kill-A-Watt® meter to measure energy consumption.
- 4 Read the display screen at different intervals during the day or week to fully assess your usage. The screen displays two types of information:
 - A. The amount of power being used, measured in kilowatt-hours (kWh), which is the same unit of measurement on your electricity bill. Your approximate daily, weekly, or yearly energy costs are displayed.
 - B. How long the appliance or electronic has been attached to the Kill-A-Watt® meter.
- 5 Reading indicators will automatically reset to zero when their maximum limit is reached.

Safety Tip: For 120 volt appliances and fixtures only.

User Tip: Keep device plugged into Kill-A-Watt® Meter for minimum of one hour to see results.



REFRIGERATOR/FREEZER THERMOMETER

Follow these steps to check if your fridge and freezer are operating at optimal temperatures.

- 1** Hang the thermometer in the fridge and freezer overnight. Ensure the device is not touching anything.
- 2** Read and record the temperature.
- 3** Adjust the temperature dial as needed.
- 4** Performing this test a couple times throughout your borrowing period will allow you to check if your appliances are sealed properly and operating at the optimal level.



DRIP GAUGE AND DIGITAL TIMER

This tool helps you determine how much water is wasted from leaking faucets.

Follow these steps to measure water wasted.

- 1** Reset digital timer and place where you can easily see it.
- 2** Place drip gauge under leaky faucet for exactly 20 seconds then remove.
- 3** Look at the LPD (litres per day) and LPY (Litres per year) figures for your values.
- 4** Repair or replace your leaking faucets. This is usually something that can be done yourself. If unfamiliar, ask for advice at your hardware store, follow instructional videos online or check out do-it-yourself books at the library.



FLOW METER BAG AND DIGITAL TIMER

This tool helps you determine the water flow from your showerhead and faucets. Water is measured in litres per minute (LPM).

Follow these steps to measure your flow rates.

- 1** Turn on the shower head or faucet you are testing and adjust its flow to the rate you would normally use.
- 2** Place digital timer where you can see it clearly and push the start button.
- 3** Hold the bag open and place it under the fixture for exactly five seconds.
- 4** After five seconds, move the bag away and record the LPM measurement displayed on the side of the bag.
- 5** Pour the water out of the bag and repeat the task to confirm your results. Ideally, you want to see a flow rate of no more than 6 LPM for the taps and no more than 15 LPM for the shower head.

User Tip: Please ensure bag is fully dried before returning to library.

HOT WATER TEMPERATURE CARD AND DIGITAL TIMER

Follow these steps to test how hot the water is from your taps.

- 1** Turn on hot water tap and run it for 60 to 90 seconds.
- 2** Reset digital timer and place where you can easily see it.
- 3** Hold the black strip on the Water Temperature Card under the running water for 15 seconds.
- 4** If number on card is higher than 54°C, consider adjusting your hot water tank or speaking with a professional if you are unsure.

ADDITIONAL INFORMATION



Did you know The City of Red Deer offers a rebate program for residents who purchase and install a new rain barrel?

Rain barrels reduce the need for using treated water on your yard, and helps reduce runoff and pollution into the Red Deer River.

VISIT

reddeer.ca/rainbarrels



Did your toilet pass the leak test? Considering purchasing a new model this year? The City of Red Deer offers rebates when you replace a high flow toilet with a qualifying low flow model.

APPLY TODAY

reddeer.ca/toiletrebate





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QUESTIONS OR COMMENTS?

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