

# SUPPORT NATURE AND PLANT LIFE

**CLIMATE CHANGE AFFECTS MORE THAN JUST PEOPLE. WHEN WE TAKE CARE OF NATURAL SPACES LIKE FORESTS AND WETLANDS, WE HELP PROTECT PLANTS AND ANIMALS TOO. THIS MAKES OUR COMMUNITIES HEALTHIER, STRONGER, AND MORE RESILIENT.**

**HEALTHY HABITATS**  
A healthy environment creates a safe and healthy place for animals, insects, and plants to live. A healthy environment also helps to clean the air, provide shaded spaces in the summer, and prevent flooding. Mature trees, native plants, birds, insects, and other wildlife may mean that the local environment is healthy and thriving!

What wildlife can you spot on the front of the poster?  
NOTE: wildlife includes plants, animals and insects

**WATCH FOR INVASIVES**  
Invasive plants can spread in many different ways, including gardening and travel by both people and animals. These plants can spread quickly through their roots or by producing hundreds of seeds, often outcompeting native species and disrupting ecosystems. Weed pulls, like the one shown on the poster, are an important way to work with your community to control the spread of invasive species!

Below are examples of invasive species to watch out for in Edmonton!



Himalayan Balsam. Photo credit: Daniel Laubhorn, City of Edmonton  
Creeping Bellflower. Photo credit: Nicole Kimmel, Alberta Environment and Parks

**TREES AND BEES**  
Look at the poster front and imagine what it would look like if all of the plants were removed. Plants are essential for healthy ecosystems because they provide food and shelter for many animals. By supporting a variety of creatures, they help keep nature diverse and flourishing.

**DID YOU KNOW?**  
Alberta is home to over 300 bee species. While honey bees aren't native to here, they play an important role in crop pollination and honey production. We can help bees thrive by planting gardens, preserving their nests, building bee hotels, and cutting back on pesticide use.

**Click Before You Dig**  
Don't forget to visit [utilitiesafety.ca](http://utilitiesafety.ca) or call the Utility Safety Partners at 1-800-242-3447 before you start your tree planting project!

**ROOT FOR TREES** is the City of Edmonton's volunteer tree-planting initiative. Corporations, local businesses, community groups, teams, families, and individual residents can take part in expanding the city's urban forest. Volunteering is a great way to give back to the community, meet new friends and gain new experiences. Are there any volunteer opportunities available near your home?

**WHAT'S THE BUZZ ABOUT ROOFTOP GARDENS?**  
Rooftop gardens are a popular trend worldwide and are now starting to catch on in Edmonton. Rooftop gardens can help absorb rainfall, and plants on the roof help to keep things cool by releasing moisture into the air.

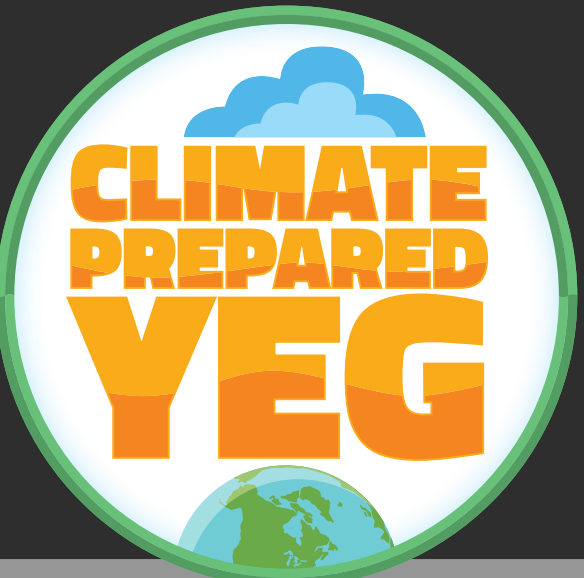
**DID YOU KNOW?**  
Rooftops have other uses, too. MacEwan University in downtown Edmonton has close to half a million bees living in hives on the building's roof!

**HOW MANY ICONS CAN YOU FIND?**



**PLANT A GARDEN**  
Replacing lawns with flowers, shrubs, and plants can boost well-being, provide cool spaces, enhance local ecosystems, and bring nature closer to home for everyone.

- What can you do?
- Choose drought-tolerant, native plants that require less watering
  - Create bee and butterfly gardens by using pollinator-friendly plants
  - Build bird and bat houses
  - Look for unused spaces within your schoolyard to plant a community garden



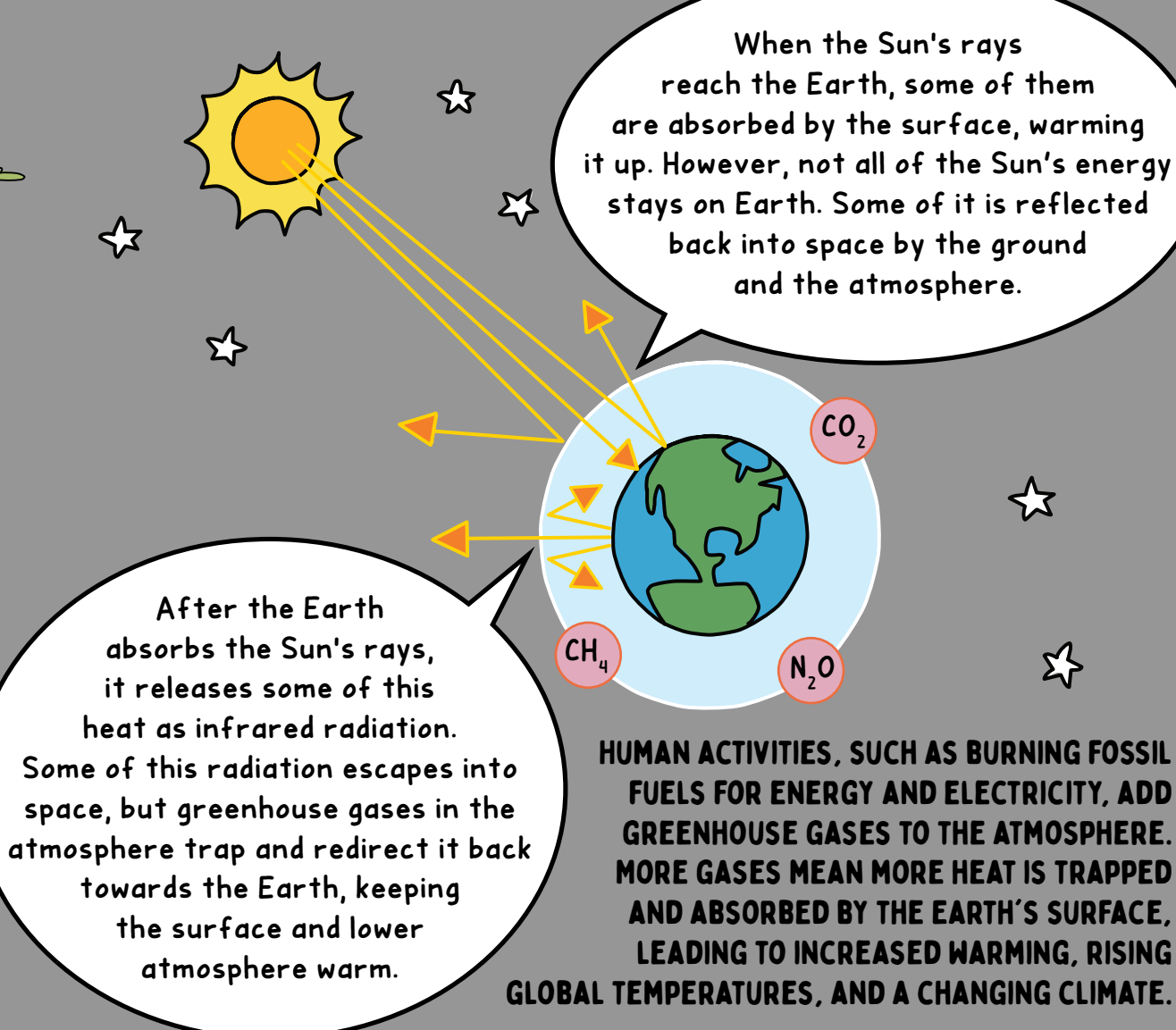
# BEING CLIMATE READY...

**NOW IS THE TIME TO ACT ON CLIMATE CHANGE AND REDUCE OUR ENERGY AND RESOURCE CONSUMPTION. BUT WHAT CAN WE DO TO GET READY LOCALLY? LET'S EXPLORE WAYS WE CAN REDUCE OUR IMPACT ON THE ENVIRONMENT WHILE PREPARING FOR A CHANGING CLIMATE WITHIN OUR SCHOOLS AND COMMUNITIES.**

## WHAT IS CLIMATE CHANGE?

### The Greenhouse Effect

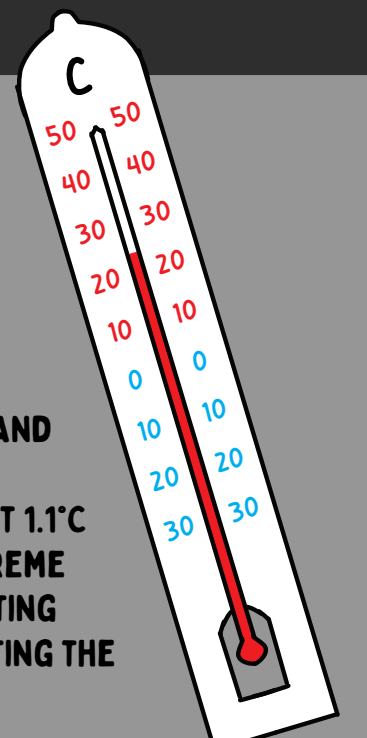
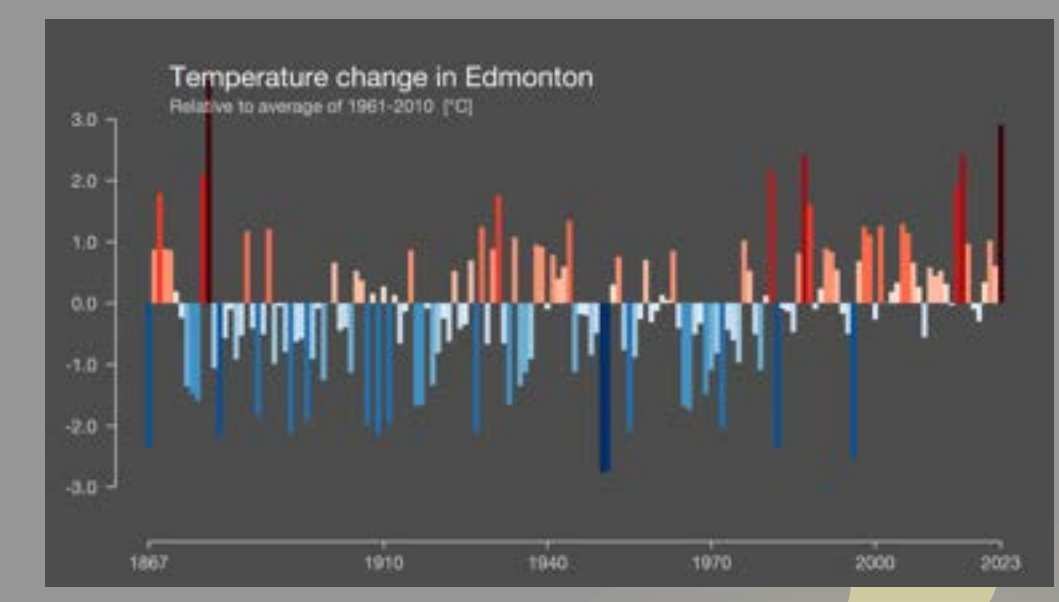
IMAGINE THE EARTH IS INSIDE A GIANT GREENHOUSE, BUT INSTEAD OF GLASS WALLS, WE HAVE GREENHOUSE GASES LIKE CARBON DIOXIDE, METHANE, AND NITROUS OXIDE. JUST LIKE THE GLASS WALLS OF A GREENHOUSE, THESE GASES TRAP HEAT AND ENERGY FROM THE SUN AND THE EARTH'S SURFACE, KEEPING CONDITIONS WARM ENOUGH FOR US TO LIVE COMFORTABLY.



### So What?

ACCORDING TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA), GLOBAL TEMPERATURES HAVE INCREASED BY AT LEAST 1.1°C SINCE 1880. THIS RISE IS CAUSING MORE EXTREME WEATHER AND TEMPERATURE CHANGES, MELTING SNOW AND ICE IN POLAR REGIONS, AND SHIFTING THE HABITAT RANGES FOR PLANTS AND ANIMALS.

WE ARE SEEING THE EFFECTS OF CLIMATE CHANGE ACROSS ALBERTA. THE DIAGRAM BELOW SHOWS THE INCREASE IN TEMPERATURE IN EDMONTON FROM 1867 - 2023, WITH DARK RED BARS REPRESENTING GREATER INCREASES IN TEMPERATURE AND DARK BLUE BARS REPRESENTING DECREASES IN TEMPERATURE COMPARED TO THE PRE-INDUSTRIAL AVERAGE.



# BE WISE ABOUT WASTE & WATER

AS OUR POPULATION EXPANDS, SO DOES OUR DEMAND FOR RESOURCES. ACTIVITIES SUCH AS MINING, AGRICULTURE, FOOD PRODUCTION, HARVESTING FORESTS FOR WOOD AND PAPER, AND WASTE DISPOSAL ALL HAVE SIGNIFICANT IMPACTS ON SOIL, WATER, AND WILDLIFE HABITATS. OUR CONSUMER CHOICES CAN ALSO IMPACT THE ENVIRONMENT. SO HOW CAN WE HELP?

**PRACTISE THE 3 RS: REDUCE, REUSE AND RECYCLE**  
Using reusable containers or bags and learning what goes into our blue bins or bags are just a few of the many ways we can practise the 3 Rs. The most effective way to reduce waste is to cut down on the amount we buy in the first place. Brainstorm ideas on how we can buy less in our everyday lives, and see if you can spot any examples on the front of the poster!



Waste sorting in public spaces. Source: The City of Edmonton



**ROUND AND ROUND**  
The circular economy keeps items in use for as long as possible by practising the 3Rs—Reduce, Reuse, Recycle—sharing with others, and fixing, repairing, or refurbishing to extend their life and reduce waste.

Do you have anything that you regularly fix or repurpose instead of tossing it out?

**TRASH TO TREASURE**  
Have you ever heard the phrase "one person's trash is another person's treasure"? Something that you see no value in could be a highly prized item to someone else. Donating items to a secondhand store and shopping secondhand are great ways to keep items out of the landfill.



Rain barrels capture water and reduce runoff, lowering the demand for municipal water supplies. Copyright © 2020 Edmonton Food Council

**BE WATER WISE**  
Warmer temperatures mean that water evaporates more quickly. As the climate changes, we can expect to experience more time between rainfall events and less snow in the winter. We will also need to prepare for heavy downpours of rain!

The front of the poster also shows water being wasted. Identify these wasteful actions and think about what you might do instead to be wise about water.

**Water Saving Tips!**

- Turn off the tap while brushing your teeth
- Reuse your towels
- Fix leaky faucets
- Only run the dishwasher or washing machine when full
- Take short showers (5 minutes or less)

What other ways to save water can you think of? Can you spot any of these on the front of the poster?

# LOCAL FOOD

AS THE CLIMATE CHANGES, THE FOOD WE GROW MIGHT ALSO CHANGE, TOO. FOOD SECURITY IS ABOUT MAKING SURE THAT EVERYONE CAN ACCESS HEALTHY AND AFFORDABLE FOOD, EVEN AS THESE CHANGES OCCUR.

**BERRY GOOD NEWS**  
Saskatoon berries, named from the Cree word misâkwatâmina meaning "fruit of the tree of many branches", are prized by many Indigenous people, including the Blackfoot. Camps were located where an abundance of Saskatoons would provide prime picking spots, berries were dried for pemmican and used in traditional medicine, and the wood was fashioned into arrow shafts. These hardy shrubs need little water once established, and their berries are excellent fresh, in desserts, or preserved.

Keep your eyes peeled for Saskatoon berries in Edmonton's river valley!

**GROW PLANTS TO EAT**  
Growing your own food can help you save money, eat healthier, reduce stress, and reduce carbon emissions and packaging waste.

**Solve this Riddle!**  
In this garden, no soil you'll find, Instead, water and nutrients are combined. Plants grow strong with roots submerged, And fresh greens and herbs emerge. What kind of garden is this?

Unscramble to find the answer: cyohdnipiro

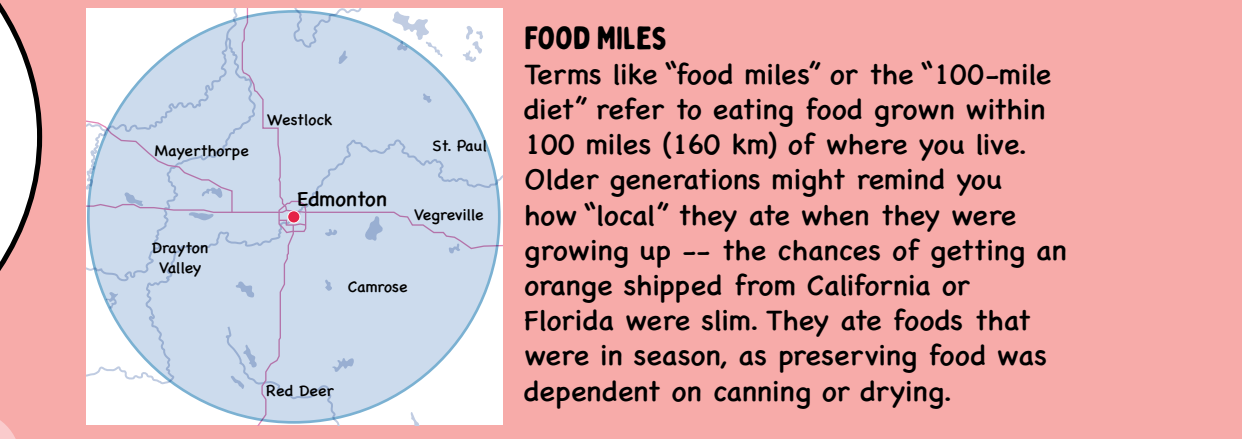
**NO YARD? NO PROBLEM!**  
Even if you have just a concrete patio or balcony, you can still grow a garden. Use small pots, raised planters, or window boxes, and try vertical gardening to save space. You might also join a community garden or share space with a friend to grow your own tasty fruits and vegetables.

Do some digging to find a community garden near your school.

**TIP:**  
The best time to water your garden or lawn is early in the morning or late evening when temperatures are cooler. Watering during the heat of the day can cause water to quickly evaporate and not reach the roots of your plants.

**HOW LOCAL IS LOCAL?**  
"Shop local" goes beyond visiting the nearest store, which might be a large grocery chain headquartered elsewhere. It means choosing products grown closer to home, like in Alberta or nearby, to reduce transportation emissions and support local producers.

**FOOD BOXES**  
Community Supported Agriculture (CSA) programs support local farmers who face risks like unpredictable weather. By paying upfront, you help them manage these uncertainties and, in return, receive seasonal produce. Your support ensures they can continue their work and prepare for future growing seasons, regardless of their harvest size.



**Food Footprint Challenge:**  
Think about your favourite food. Research where it is grown, the method used to ship it to the grocery store and try to figure out the environmental impacts of moving that food all the way to your community. Compare the foods chosen by your classmates. Which food has the most "food miles?"  
Note: Higher food miles usually lead to increased emissions.

# PREPARE FOR EMERGENCIES AND EXTREME WEATHER

AS EXTREME WEATHER EVENTS LIKE HEAT WAVES, HEAVY RAIN AND STRONG WINDS INCREASE, WE NEED TO PREPARE AHEAD OF TIME SO WE CAN RESPOND SWIFTLY AND MINIMIZE DAMAGE.

**RAIN AND FLOODS**  
Summer is a great time to play outdoors, but also to prepare for heavy rainfall and hail. Edmonton is preparing for heavy rain in a number of ways:

**WET POND, DRY POND**  
Low-lying sports fields can capture rainwater from nearby areas. When dry, they're used for sports, but after heavy rain, they become temporary ponds until the water drains.

Do you have a wet or dry pond in your community?

**PUT A LID ON IT**  
Low Impact Development (LID) uses plants and natural processes to capture stormwater and runoff, lowering flood risk. Soil and plants in LID also filter pollutants and support pollinators. Examples include stormwater ponds, roadside shrubs, grasses and trees along sidewalks, and rain gardens replacing lawns.

**FLOOD PROOFING**  
There are many ways we can prepare our homes for flooding:

- make sure yards slope away from your house foundation
- check that sump pumps and backwater valves are in working order
- store basement valuables in waterproof containers in case of flooding

Look at the poster and find the many ways that people, neighbourhoods and the city prepare for heavy rains. Is your schoolyard and your neighbourhood ready for rain?

**EMERGENCY KITS**  
Emergency kits can be useful if you have to pack up and leave in a hurry. Check off the items on the list below that belong in an emergency kit:

- First Aid Kit
  - Hand-crank Radio
  - Canned Food
  - Nintendo Switch
  - Bottled Water
  - Measuring Tape
  - Solar Phone Charger
  - Personal Identification
  - Soda Cans
  - Flashlight with Extra Batteries
  - Blanket
  - Coat Hanger
- Emergency preparedness kit supplies. Copyright © 2024 Government of Alberta
- What additional items should you add to your kit? If you have pets, what items would you pack for them for an emergency?



Emergency preparedness kit supplies. Copyright © 2024 Government of Alberta

**BEAT THE HEAT**  
Summer temperatures are on the rise, but there are things we can do to stay cool and ensure others are comfortable.

**GET NEIGHBOURING**  
Hot temperatures can be dangerous for anyone who is ill, young, or elderly, especially if they lack air conditioning. Do you ever check in on your neighbours to ensure they're safe and comfortable?

**STAY HYDRATED**  
It is recommended to drink 7-8 glasses (1.8-2L) of water daily to stay hydrated and prevent fatigue, dizziness, and headaches. Look for water fountains or bottle-filling stations in your community!

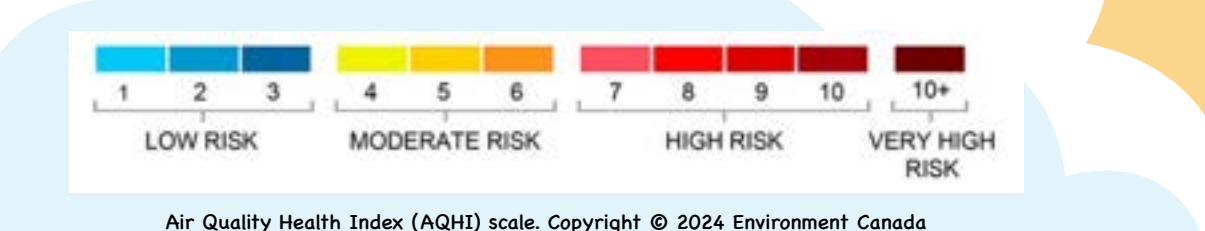
**COOL OFF AND PLAY**  
Spray parks and misting stations are a great way to cool off in the heat.

**SHADY SPACES**  
Trees provide shade to escape the heat, offer animal habitat, produce fruit, and much more!

**DRESS FOR THE OCCASION**  
Wear light, loose clothing to stay cool. Don't forget to wear a hat and sunscreen to prevent sunburns!

**LET'S CLEAR THE AIR**  
Poor air quality can be caused by various factors, including exhaust from car engines and smoke from wildfires.

In Alberta, we use the Air Quality Health Index (AQHI) to track air quality across the province. This handy scale helps everyone, especially kids, seniors, and those with health conditions, take action to stay safe and breathe easy on poor air quality days.



List all the actions you can find on the poster front that will help to improve air quality in your neighbourhood.

EDMONTON'S POPULATION GROWTH OVER THE LAST CENTURY HAS BEEN FUELED BY FOSSIL FUEL DISCOVERIES. DEPENDENCE ON COAL, OIL, AND NATURAL GAS FOR ENERGY AND ELECTRICITY HAS LED TO INCREASED GREENHOUSE GAS EMISSIONS, WHICH ACCELERATE GLOBAL WARMING AND DRIVE CLIMATE CHANGE. IF WE DIAL DOWN OUR DAILY ENERGY USE OR LOOK TOWARDS RENEWABLE ENERGY SOURCES, WE CAN SLOW DOWN THESE EFFECTS AND WORK TOWARDS A SUSTAINABLE FUTURE.

**WHAT CAN WE DO?**  
We can make a big difference in reducing greenhouse gas emissions and protecting the environment by changing some of our daily actions. Flip the poster over to discover examples of how to cut fossil fuel use or find alternatives in your everyday life. Write down the actions you can take and compare your choices with your classmates.

**Give it a Try:**  
Look for sources of greenhouse gases within your school community. Which category of the pie chart below do these activities fall into?

Edmonton's Community Greenhouse Gas Emissions (2023)

- Transportation
- Commercial & Institutional (Includes Schools)
- Residential Buildings (Houses, Condos, & Apartments)
- Manufacturing, Construction & Industrial
- Other

Other sources of greenhouse gas emissions include agriculture, forestry, waste, and wastewater treatment. Data was retrieved from Edmonton's Community Energy Transition Strategy and Action Plan.

**PEDAL POWER**  
It's true—you can generate power by pedaling a bicycle if it's set up the right way. But mostly, we love cruising around the city on shared pathways and commuter routes. Besides cycling, there are plenty of other ways to get around the city with minimal to no greenhouse gas emissions.

**DID YOU KNOW?**  
Edmonton is the second sunniest city in Canada! Solar panels perform well in cold conditions because they need sunlight, not heat, so they work even on the coldest days.