

Urban Edition

Curious by Nature

Welcome to **YOUR** adventure.

Why isn't this just another field trip or day at the park?

This Beaver.

It's the start of a journey like no other.

**Welcome to the wonder of nature in the heart
of the concrete jungle.**

Let's get started!



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada

**Stop for a moment. Look around,
breathe deeply and listen.**

This place is extraordinary.

We often assume that nature is a place to visit—something far away from our daily lives. But that's not true. It can also be found right **here**.

Amidst the hustle and bustle, we often miss it. But when we stop and notice, we realize **this** place is unique not just for its green spaces, but for all the life it houses: plants, insects, animals, birds and, yes, even beavers.

You see, beavers aren't just icons of the wilderness. They're city dwellers and hard-working neighbours, shaping the land around us every day.

So, who better to guide us than one brave beaver with a remarkable story that just might change the way you see this special place.

**What
To
Bring:**



Be a Good Guest in Nature

Just as we want to keep our homes clean and safe,
we want to be sure to treat this home the same way.

- Wear appropriate clothing and bring water, snacks and sunscreen.
- Always stay together with your group and never wander off alone.
- Stay on trails and sidewalks, and be gentle with plants and trees.
- Don't take anything from the wild, not even a rock, and don't leave any trash behind.
- Keep a safe distance from animals and never chase them.
- DO NOT feed wildlife as this can harm them and change their natural behaviour.
- Use quiet voices and calm movements to respect wildlife.
- Stay away from roadways.



Beaver

Character
Profile

Name | North American Beaver (*Castor canadensis*)

Diet | Herbivore

Weight | Average 15-30 kg

Size | Height at Shoulder | 30-60 cm | Body Length | 80-120 cm

Lifespan | Wild: 10-12 years some live 20+ years

Lifespan | Captivity: 15-20 years some live to 30 years

Abilities | Can remain submerged underwater for up to 15 minutes

Abilities | Can close their eyes and nostrils underwater to keep water out of these openings

Abilities | Large golden teeth continuously growing and strong enough to chew through trees



Find a quiet spot and spend 3-5 minutes observing this place.
What do you see, hear or smell?



Awaken
Your
Senses

See

Hear

Smell

Maybe you think you know everything about beavers.

Think again!

Beavers have called this land home for millions of years. Even when ice and snow covered the land, people lived alongside beavers.

Across diverse Indigenous cultures, beavers are respected as symbols of hard work, creativity and teamwork. And they're featured in many stories and teachings, illustrating the power of community and the importance of caring for the land. By learning from these teachings—and paying attention to the beaver's story—we can discover new ways to share this home with all living things.

Urban Beavers and Reconciliation

Indigenous Knowledge is a major reason why beavers have returned to Canadian cities—a conservation success story that is helping both people and nature thrive.



In cities like Vancouver, partnerships with Indigenous nations have helped the beaver return to urban creeks, where new colonies have enhanced water quality.

Indigenous leaders have promoted beaver co-existence and conservation efforts in Ontario's major cities, leading to an increase in beaver populations along the Ottawa River and in Toronto's High Park.





Whose Territory is This?

What Indigenous territory are you on?

Take some time to acknowledge the presence of different Indigenous communities both past and present.

Interesting fact!

All across Canada, Indigenous Peoples are helping to protect important natural areas, called Indigenous Protected and Conserved Areas. These areas keep the land, water, plants and animals protected from activities that could harm or displace them.

Dene:
tsaa

Haida - Xaad Kíl:
ts'ing

Dakelh - Carrier:
tsa

Cree:
amisk

Anishinaabe:
amik

Atikamekw:
amiskw

Innu:
amishku

Kanien'kéha:
tsienni:to

Mi'kmaq:
gopit

Where does our beaver's story begin? At HOME, of course—just like every story!

Home means shelter, safety and a place to eat, learn and play. Without it, survival is hard, but with it anything is possible.

Our beaver was born in a cozy lodge in a place much like **this** one. To find a beaver's home, think about what you'd want in a home because beavers look for many of the same things!



Definition of a Home

Habitat

The specific features that make a place home to a plant or an animal—like our beaver!

Wetlands

Special water-based areas created or improved by beavers supporting plants, animals and clean water.

Ecosystem

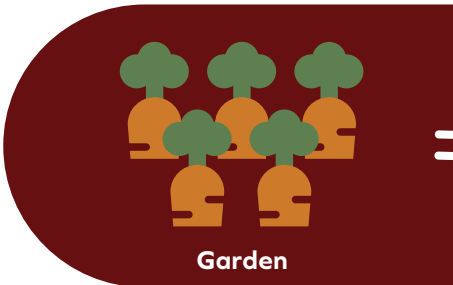
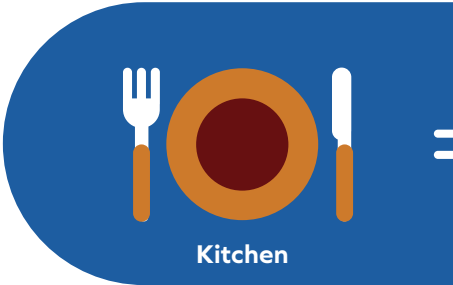
All living things and their environment working together in a certain place—like where you are now!

Ecoregion

A big natural area with similar ecosystems and plants and animals—like Canada's boreal forest.



As cities grow, animal homes like those of beavers can disappear—this is called displacement. Luckily, many Canadian cities protect natural areas right inside the city—they're places where people, plants and animals can live together.



Our beaver—a male—was born alongside five siblings in a park just outside of a busy city, near the banks of a major river. Beavers live and work as a big family or colony—parents, siblings and older kits all helping to raise the young.

Even as a playful kit, our beaver could swim and learned that the sound of running water meant it was time for the whole family to work together to fix their dam.

He loved his family and their busy lives, but when his second spring arrived, our beaver knew it was time to move on and explore the river's possibilities. Finding a new home wouldn't be easy. He'd need to rely on his sharp senses to survive.

Maybe we should use our senses more, too. **When we start to see a city the way a beaver does, we discover how special this place truly is for all life, big and small.**

Rank Your Senses

Use your five senses to explore your surroundings. Which of your senses feels the strongest? Rank them from 1 (weakest) to 5 (strongest).

Rank #

What did you notice with this sense?

How does it help in your daily life?



#



#



#



#



#

*Only taste something you are sure is safe.



Our beaver is a master of touch, but he also has incredible hearing. Despite their small ears, beavers hear faint sounds from far away—even over city noise—and they also hear well underwater. Their ears close tightly while swimming, keeping water out but still letting them hear the sound of a distant leak, approaching danger or family calls. And beavers do love to talk to each other!



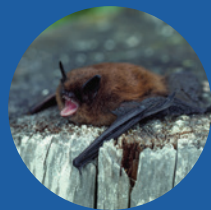
Listen Closely

Close your eyes and listen carefully for 2–3 minutes. Write down three distinct sounds you hear and where they might be coming from.

From Nature

From Humans

Now, **CIRCLE** the sounds you think a beaver might not enjoy hearing.



GREAT HEARING

Little Brown Bat



WEAKER HEARING

Muskrat



Our beaver's "sniffer" is another amazing tool. Beavers use their incredible sense of smell to communicate and mark territory in urban waterways with a strong, orange-like scent called castoreum.

Think of it as a perfume that helps keep track of neighbours—like a nice-smelling fence! His nose also helps him find tasty plants and stay safe from predators like foxes and coyotes.



GREAT SMELL
Coyote



WEAKER SMELL
American Crow



BEST SMELLING
Fisher



WORST SMELLING
Grizzly Bear

Find two things around you to smell—like a tree, a flower, grass or soil, and describe the scent (earthy, sweet, fresh).



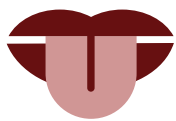
**A
Nose for
Nature**

What do you smell?

Describe the scent



Cities have many great restaurants and excellent vegetarian chefs but one of the best? The beaver! These bark-chewers use their sharp sense of taste to choose the best bark and leaves to eat. A beaver's taste buds help them pick seasonal foods, ensuring they get what they need all year round.



Nature's Flavours

Find a flowering plant and observe it for five minutes. Count how many pollinators visit—like bees, butterflies, beetles or hummingbirds—and notice which types are most frequent and how they interact with the flower.



GREAT TASTE

White-tailed Jackrabbit



WEAKER TASTE

Bobcat

Fun Fact

About one out of every three bites of food we eat depends on pollinators like bees and butterflies!



Is there something our beaver can't do well? Well, their eyesight isn't sharp like an eagle's or an otter's—they are near-sighted, so distant objects appear blurry. While their eyes sit high up on their heads to help them see above water, they rely more on their super sense of touch, easily feeling their way around this place!



GREAT VISION
Barred Owl



WEAKER VISION
Meadow Vole



Nature Colour Hunt

Look carefully around you—what colours can you find in nature? Move a little. Look up, down and all around! Write what you notice for each colour.

Red

Orange

Yellow

Green

Blue

White

Brown

Our beaver has an amazing toolkit of senses and a possible “sixth sense” too!

He has a special navigational skill called homestead memory, working like a built-in GPS. This lets beavers remember every path and waterway they’ve used, even in a busy city.

Homestead Memory in Action

Beavers swim through dark tunnels, even under ice or muddy water, and always find their way home. ● In cities, beavers remember secret paths to avoid people, dogs and predators. ● Beavers know where all their favourite trees are, and the safest spots for lodges—even when the city changes. ● After a long night of work, a beaver never gets lost and zips straight back to its cozy lodge.



Do people have a “sixth sense”?

Many Indigenous Peoples speak of a “sixth sense” as well. It’s not magic, but a way of knowing rooted in a deep connection to land and the life that calls it home. Indigenous Knowledge teaches us to slow down and truly experience nature with all our senses, offering insights that western science alone can’t always explain.

Each Indigenous nation shares unique stories and teachings about this special way of sensing the world. By blending Indigenous Knowledge with western science, we gain a fuller, richer understanding of our natural world—what’s called “two-eyed seeing.”

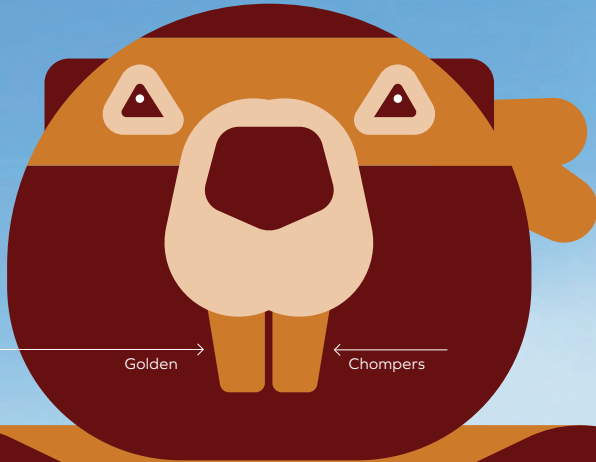
Our beaver excels at four senses, has a handy “sixth sense” for navigation and also has an evolutionary superpower. Just check out his amazing front teeth! These big, golden chompers never stop growing and are strong enough to cut down whole trees.

That’s not just cool—it’s a real superpower.

Their front teeth allow beavers to build and maintain wetlands, crucial homes for 40% of all species. With wetlands disappearing worldwide, beavers play an important role in keeping these habitats alive—some even so large, they’re visible from space!

Wetlands cover about 13% of the land area of Canada. Without wetlands, we’d lose many animals, birds and plants we depend on.

Beavers really are SUPERHEROES!



Parachuting Beavers

Beavers are being reintroduced in areas all over the world to help fix rivers and make new homes for animals. In the 1940s in Idaho, people even dropped beavers out of airplanes with parachutes to get them started rebuilding wetlands. Though they were happy to return, they likely could have done without the flying lesson!

Even with all his impressive skills, our beaver couldn't choose his home on his own—he needed to keep in mind all those around him.

Why? **Because every creature is part of a larger community—each interconnecting to give us life.** It's what's known as biological diversity.

Bio what?! Biodiversity!

Think of it like a giant puzzle made up of all living things, from insects and plants to birds, animals, fungi and microbes. Each piece matters for the whole puzzle to work.

For our beaver, survival isn't just about finding food. It's about having the right mix of species around him: birds that plant trees, insects that pollinate plants and larger predators that keep smaller troublemakers away.

See how every piece of nature fits together?



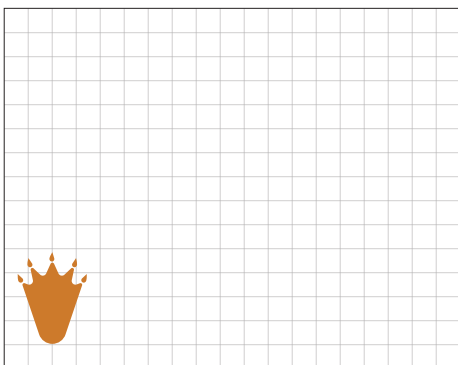
Canada has over **463 kinds of birds**, from the brilliant raven to the tiny, endangered burrowing owl. Discover more cool facts and ways to help birds in "The State of Canada's Birds."



Follow the Trail

Your job is to look for clues that animals or insects have left behind—like footprints, chewed leaves or feathers. Can you spot an insect or a small animal track?

Draw any animal prints you find and try to identify them when you get home!





1 Beaver

2 Common Cattail

3 Columbia Spotted Frog

4 Raccoon

5 Canada Goose

6 Moose

7 Coyote

8 Long-tailed Weasel

9 Rufous Hummingbird

10 Osprey

11 Great Blue Heron

12 Shortawn foxtail

Nature works together in surprising ways to help species like our beaver thrive. Take the river otter—a meat-eater you might think would be a beaver’s enemy—is instead an unlikely friend.

River otters often use beaver lodges for shelter on long journeys, just like travelers staying in hotels. In return, otters help beavers by eating fish and other prey that could otherwise create problems in the wetlands they call home.

It’s a unique partnership that helps this place work for everyone!



Food Web

How does nature work together?
See for yourself!
Draw as many arrows as you can between species that impact one another.



Raven & Wolf

Ravens find food for wolves and alert them to danger, while wolves give ravens access to meat they couldn't get on their own.

Surprising Species Partnerships



Grizzly Bear & Sitka Spruce

Grizzly bears catch salmon and bring them into the forest to eat. The rotting leftovers feed the trees, helping them grow and shade the river, allowing salmon to return and feed the bears each year.



Before summer arrived, our beaver found the perfect home—a small pond near tall city buildings and the meeting of two rivers.

As autumn came, he built a cozy lodge and dammed one of the rivers to slow the flow of water, just the way he liked it. But as the snow began to fall, our beaver realized that to make this a true home, he needed to find a mate. **And he did!**

By the time the snow melted, our beaver welcomed four healthy kits, or baby beavers, to his new family.

The Seasons of a Beaver: How Weather Shapes Life



Spring

Beavers become more active as days lengthen, rebuilding dams and lodges, and welcoming new kits. Families eat fresh shoots and bark.



Summer

Beavers raise kits, maintain their homes and keep cool with thinner fur. They eat plants, play and groom to stay healthy.



Fall

Beavers grow thicker fur, stockpiling branches and bark for winter. Activity increases as they prepare for the cold.



Winter

Beavers survive on stored food and thick fur, mostly staying inside lodges and moving slowly to save energy. Occasionally, they venture out for extra food.



Camouflage Challenge

Notice the colours of your shirt or coat. Find a spot outdoors where your colours could blend in with your surroundings. Check trees and their bark, leaves, shrubs or rocks. How well can you hide from view? How might blending in help animals, especially in urban areas? How might changing seasons or weather affect your ability (or an animal's ability) to blend in?

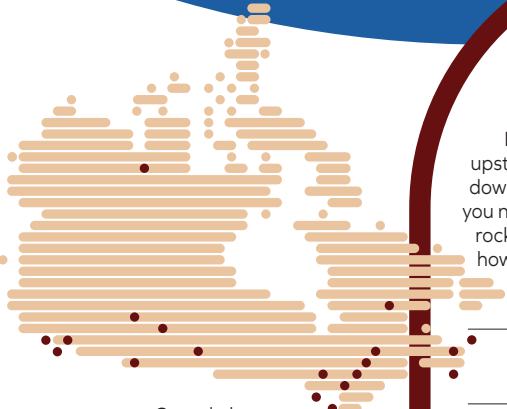


For our beaver and his family to thrive, they rely on the vital waterways flowing through their urban habitat. We all depend on these watery connections, or watersheds—areas where rain, snow and water drain into the same lake, river or ocean.



Watersheds link plants, animals, soil and water—forming a single natural neighbourhood. Flowing water acts as a highway, moving nutrients and life through different ecosystems.

Healthy watersheds support diverse life and need our care, especially as weather changes. Even beavers help keep watersheds strong!



Canada has

• **19 biosphere reserves**

where communities, scientists and Indigenous Peoples work together to keep nature healthy.

These special places show how working together can help protect animals, plants and even people.

These reserves also help us adapt to climate change.



Watershed Mapping

Find a spot near a stream or pond. Look upstream (where the water is coming from) and downstream (where it's going). Pick three things you notice in the water or along the banks such as rocks, plants, animals or trash, and think about how it might affect water quality downstream.

Why is it important to care for the water **here** in order to help plants, animals and people downstream?



Beavers in Canada once declined from tens of millions to just 100,000. As many species struggled, we began working to coexist with the beaver, even welcoming them back to our cities.

But when a beaver moves in? Human neighbours aren't always happy.

Though our beaver was working to manage the flow of water in a city that very much needed help, when he expanded his lodge and reshaped the landscape, he flooded areas designed for people. Officials kept breaking his dams, ruining our beaver's home.

Canada's Species at Risk Act & Why Species Are in Decline

Biodiversity loss happens when things like habitat loss or fragmentation, pollution, invasive species, exploitation of wildlife and climate change impact the lives of species. And right now? Our world is losing species at a rapid rate. Canada's Species at Risk Act (SARA) works to stop the decline, helping protect animals and plants that are in trouble by protecting their homes and helping populations grow. To learn more about SARA visit:



Nature's Hope

While cities can seem to take over nature, many plants and animals adapt and thrive in urban spaces. If you look closely, you'll find signs of nature healing and persisting, like plants growing through cracks or new shoots on broken branches. What does this tell you about nature's ability to survive and adapt? What story is it trying to tell?

Maybe you think this is a sad story—another tale of environmental loss. It's not. Why? Because, as promised, this is one incredible beaver with a remarkable story.

Despite being unwelcome, the beaver family never gave up. Every time their dam was destroyed, they rebuilt—even through the winter.

And thank goodness they did!

When the spring's snowmelt combined with a record rainstorm, our beaver's city was threatened with a record-setting flood. Waves and waves of water crashed down from the mountains and into the city causing incredible damage, but not to our beaver's neighbourhood.

Why? The dams created natural barriers that slowed floodwaters, and their pools pushed water underground, preventing it from flooding homes and businesses.

Billions of dollars were saved, **all because one beaver was determined to call this place his home.**



Check out the Curious By Nature learning hub for more fun info at

naturelabs.ca/curious-by-nature



People spend years studying to become engineers and architects to design our incredible cities. Yet, one beaver family accomplished what people alone couldn't. That's the power of nature!

So, when the seasons changed and fierce rain came again, the city felt safer—protected by the work of a once unwanted rodent who became a local superhero.

We may not know how our beaver's story ends, but we do know that every creature, **including us**, shapes the world in ways big and small—every single day. And when we choose to do better, **anything and everything is possible.**

By really stopping to appreciate **this** place—one you may have walked by many times—you've started to uncover its stories, like a beaver determined to help people and nature.

These stories matter. Why? **Because they also remind us that we have a story.**

Time to find yours and share it with the world: **Your time is now!**



What's Next?

Because you matter and what you do matters, consider doing your part to help people and nature in a place like **this**.

Join the Protect Nature Challenge!

Build a pollinator garden | Plant native flowers in your yard or on your balcony to help bees, birds and butterflies.

Become a citizen (community) scientist | Use apps to track birds, bugs or plants you see and help scientists learn more.

Clean up nature | Help nature by cleaning up shorelines, beaches, parks and other natural spaces.

Learn more about National Wildlife Areas (NWA) in Canada

Canada's National Wildlife Areas protect important habitats for migratory birds and wildlife, including species at risk across Canada. They protect biodiversity and healthy ecosystems from human activities for current and future generations.





It's time for a Scavenger Hunt!

Explore your surroundings and see how many of the items on the list you can find. Stay curious and enjoy discovering the hidden wonders around you.



Tips

Choose a spot to explore safely.

Look closely at your surroundings to discover plants, animals and insects.

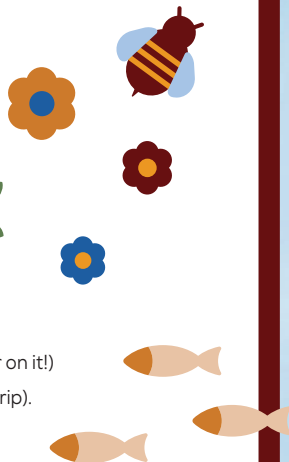
Use your senses as you did before to observe what you see, hear, smell and feel.

Note any interesting finds or behaviours.

Don't disturb or remove any wild creatures or vegetation, including nests and eggs.



- Find something orange.
- Find a rock with an interesting shape or pattern.
- Spot three birds and/or listen for three types of singing.
- Discover something soft or fuzzy.
- Find something that smells strong or sweet.
- Find something that floats in water.
- Discover an insect or a small creature.
- Find something shiny or reflective.
- Find something that inspires curiosity.
- Spot something red.
- Find a plant with tiny flowers. (Bonus if there is a pollinator on it!)
- Listen for the sound of running water (stream, puddle or drip).
- Discover something shaped like a circle.
- Find evidence of five animals (tracks, feathers, scat).
- Find something that looks like it's been influenced by humans (path, garbage, etc.).
- Spot something with stripes or spots.
- Find something shaped like a letter of the alphabet.
- Spot a bird's nest or insect home. Be careful, do not get too close or touch it.
- Spot something very small—smaller than your thumb.
- Find something with a strong colour contrast (light vs. dark, bright vs. dull).



Use [iNaturalist.ca](https://www.inaturalist.ca) to help with species identification and to report sightings to help scientists.

