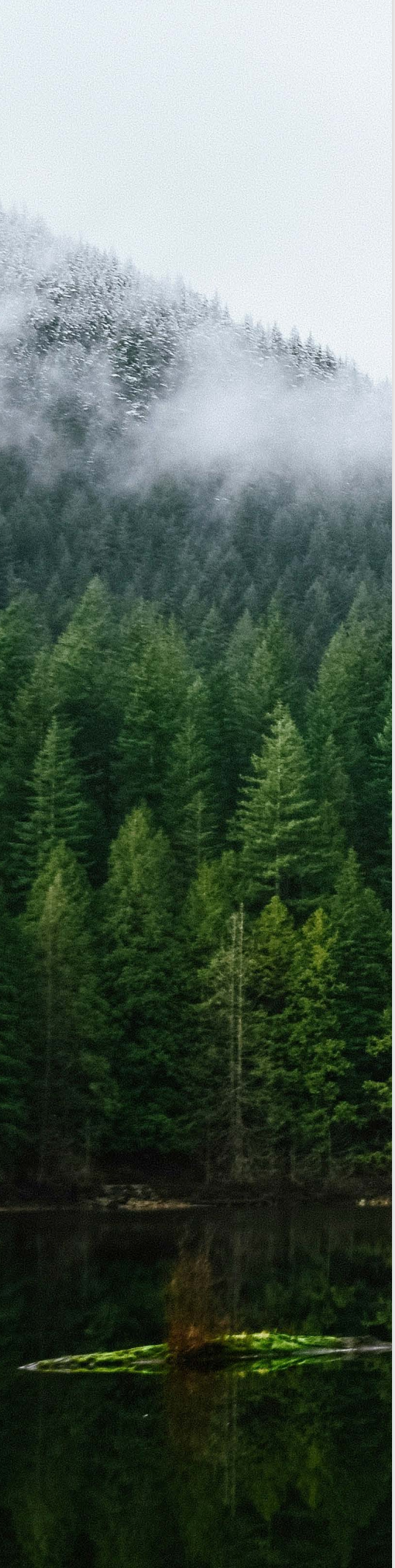


Protecting nature and culture with Parks Canada - Teacher's guide

Introduction

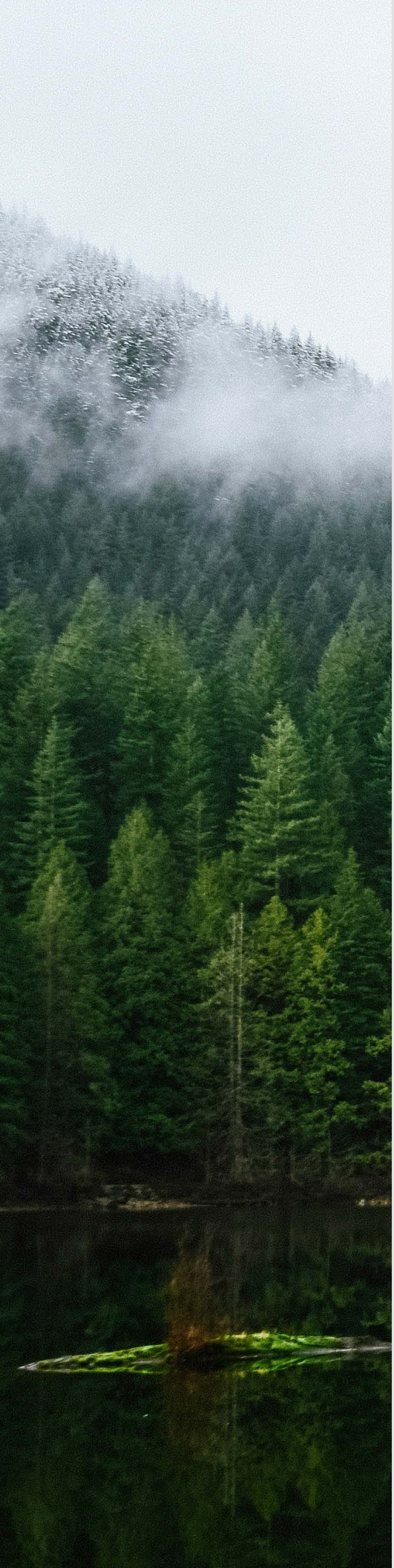
Canada is world-renowned for its vast wilderness, with breathtaking lakes and mountains, deserts of snow and ice, and iconic fauna. From water to land, Canada is a landscape to explore, experience, and protect. Parks Canada plays a crucial role in helping Canadians, and visitors from around the world, experience all that Canada has to offer through the protection of 450,000 km^2 of diverse land and water regions.

As an agency of the Government of Canada, Parks Canada administers and protects areas of ecological, cultural, and historical significance in Canada. Parks Canada helps to guide learners of all ages towards understanding Canada's rich environmental and cultural history through unique learning experiences, both within and outside of Parks Canada administered sites.

Parks Canada works in collaboration with many partners, including Indigenous communities and organizations, who provide guidance on the outreach and learning initiatives offered across their sites. Visitors of Parks Canada locations can thus learn more about First Nations, Inuit, and Métis ways of being — including their distinct histories, languages, cultures, and traditions — and reflect on the role we all have to play in engaging in truth and reconciliation.

Take a trip with us on the Protecting nature and culture with Parks Canada Giant Floor Map as we explore Canada's unique geography, cultures, and histories, and learn about how Parks Canada is integral to protecting, conserving, and celebrating nature and culture. The activities included in this resource will teach students about national parks, national historic sites, national marine conservation areas, and one national urban park administered by Parks Canada. We hope that this resource inspires students to get out and explore all that Canada has to offer, and that they step off the map ready to join Parks Canada in protecting this wonderful land.

- Canadian Geographic Education and the Parks Canada Public Outreach and Education team



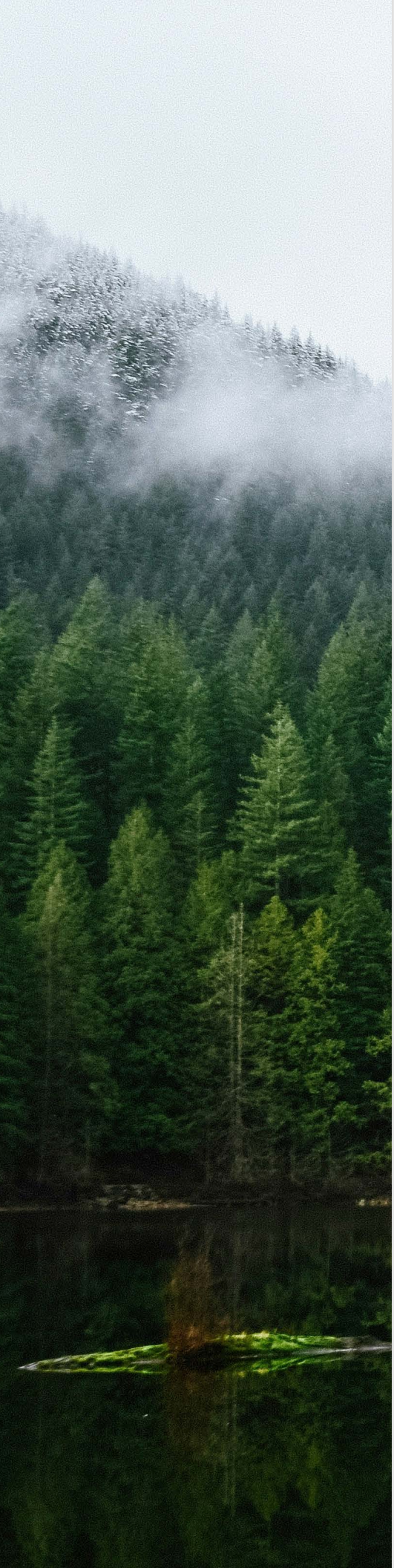
Cartographer's message

It has been about 10 years since I designed the first Parks Canada Giant Floor Map (GFM). Back in 2013, the Parks Canada GFM was the first floor map that was national in scope. It was a thrill to have such a huge canvas on which to paint a cartographic picture of Canada focused on protecting our natural and cultural heritage. Our cultural heritage was described through the inclusion of all Parks Canada administered natural heritage sites. And our natural heritage was shown not only through the delineation of our national parks, but by including a detailed land cover layer, which allowed students to not only see how big a national park was and where it was located, but also to see what kinds of natural environments were being protected within each park. Parks Canada has long been protecting the diversity of landscapes that exist in Canada, from grasslands, to forests, to tundra, and this first GFM really highlighted the diversity of natural spaces that are protected in our national parks.

Having the opportunity to revisit Parks Canada's role in protecting Canada's natural and human heritage allowed me to broaden the themes and contexts from that original GFM. The first reflects a growing understanding in Canada that, for too long, we have pushed the presence of First Peoples in Canada to the side. Cartographically, this has meant that, until recently, it was hard to find a First Nation, Métis, or Inuit presence on a map of Canada. Today, we at Canadian Geographic make real efforts to include First Nations, Métis, and Inuit peoples on all the maps we create. These efforts apply to the new Parks Canada Giant Floor Map. You will discover the boundaries of the areas covered by the treaties. You will find all 634 First Nations, Métis settlements in Alberta, and Inuit communities in the North. Also, you will see the unique governance structure that exists in the North, with the four regions of Inuit Nunangat delineated and labelled. And anywhere you look on this map, you will find the Indigenous language that is spoken in that area, reflecting the omnipresence of Indigenous Peoples.

The second big change from the original Parks Canada GFM reflects changing ideas about how to best conserve Canada's many ecoregions. The Canadian government has committed to protecting 30 per cent of our lands and waters by 2030 – and in this effort, we see new parks on this map compared to 2013, both on land and in water. And since 2013, ecologists and conservation strategists have realized the importance of connecting protected areas to each other, in order to allow for the movement and spread of animals, plants, fungi, and algae. This version of the Parks Canada GFM includes all protected areas in Canada (non-Parks Canada areas being shown in a muted brown colour). In this way, the students will see the extent of our protected lands and waters and will have an idea of how they are interconnected.

- Chris Brackley, Cartographer



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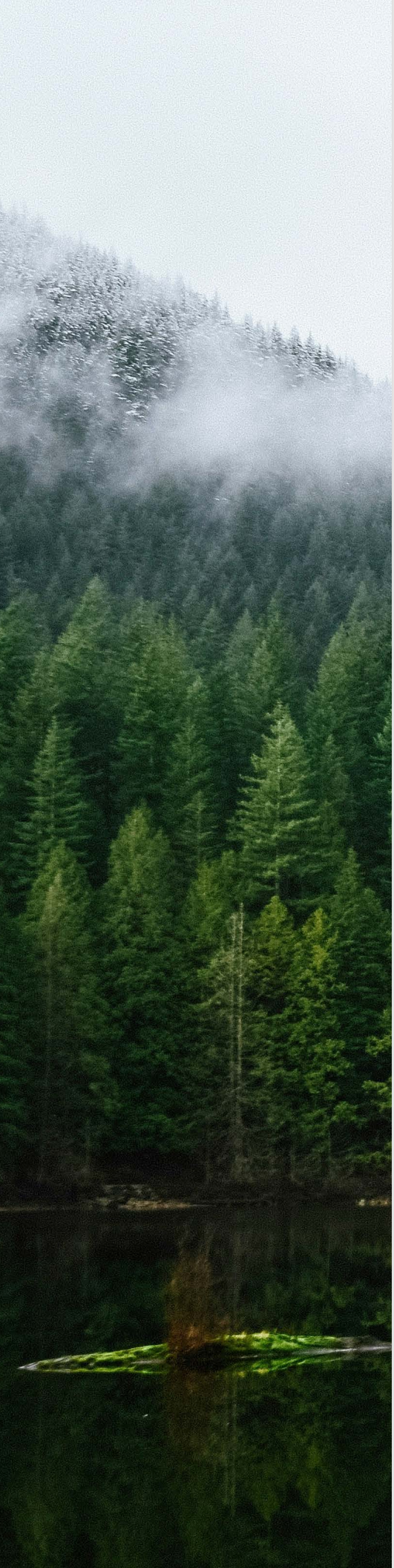

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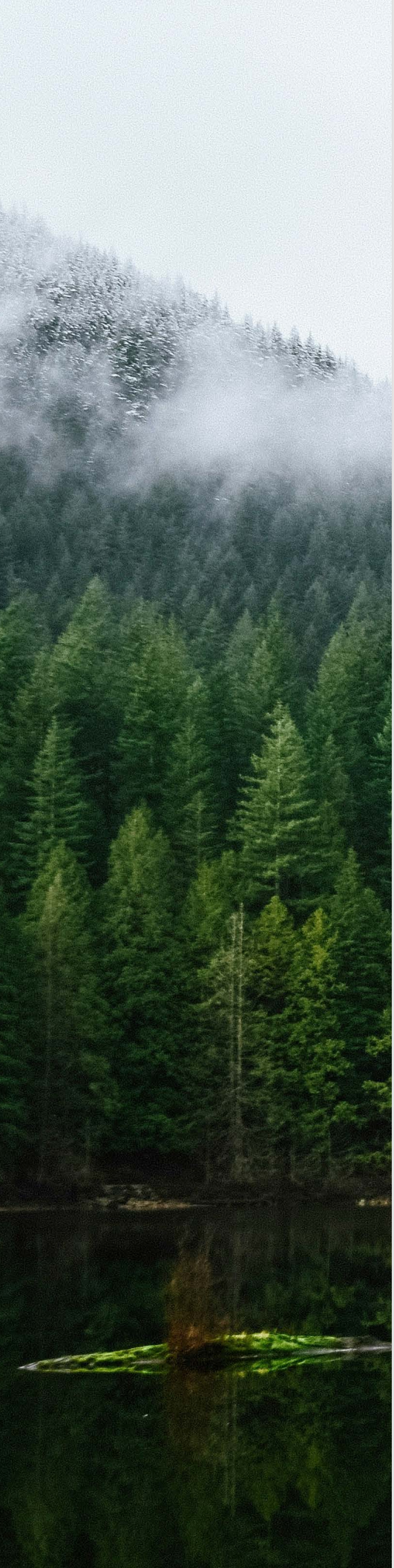

Table of Contents

1 Who are we?

Overview

In this activity, students will be introduced to Parks Canada and the Giant Floor Map, and learn about and locate places on the map which Parks Canada plays a role in administering. Students will think about the idea of "place" and what makes a place important and worth protecting.

Before going on the map, teachers should play the Parks Canada Giant Floor Map Introductory Video in the classroom.

Time required

75 minutes

Grades

6-8 (modifications provided)

Subjects

Geography

Topics

Travel, protection of land, histories, and cultures

Learning objectives

Students will:

- Understand what Parks Canada is and what they do.
- Define the different categories of places in which Parks Canada plays a role in administering.
- Locate places on the map which Parks Canada plays a role in administering on a map.

Lesson implementation

Minds on

Allow time for students to explore the map independently. Ask them to consider what is different about this map compared to other maps they've seen.

- Begin by having everyone stand along the map's border and ask students to focus on the different colours and textures they see on the map.
- Ask volunteers to stand on different areas of the map and explain what each of the different colours on the map represents, looking to the legend for help.
- Ask students to locate one example of each item represented on the legend (e.g., a national historic site).
- Have a discussion about how size and colour on maps help people to read them and understand the information presented on the map. For example, for Indigenous languages, the size of the language label is roughly equivalent to the number of local speakers based on 2016 census data describing languages most often spoken at home.

Ask the students why they think this map was created. Explain that this map was designed to help people learn about Parks Canada, the different types of places Parks Canada plays a role in administering, how Parks Canada helps to protect nature, and how the agency helps visitors learn about diverse cultures.

Ask students to stand on a Parks Canada location they have visited before or one they would like to visit. Ask a few students to stand on the different categories of locations closest to their city.

Now, ask what they think is Parks Canada's role and what commitments they might have made as an organization. Ask students what the following terms mean to them and how they think these terms relate to Parks Canada: guardian, guide, partner, storyteller, protect, present, celebrate, and serve. Read the **Parks Canada Mandate and Charter card**.

Action

Ask students to explore the map and focus on the different locations of the national historic sites, national parks and national park reserves, national marine conservation areas, and the national urban park. Define these terms for students:

National parks are areas of land in every province and territory that are established to protect Canada's nature and landscape, and present it to visitors in a responsible way.

A **national park reserve** is like a national park but subject to one or more Indigenous land claims, which are negotiated between Indigenous and federal governments. Since time immemorial, Indigenous Peoples have lived in relation to the land and practised seasonal hunting, fishing, and harvesting. National park reserves acknowledge and protect these Indigenous rights.

A **national marine conservation area** is a marine area that is protected to prevent activities like dumping (such as when factories and ships dispose of waste materials or sewage in bodies of water) and undersea mining and to ensure the

1 Who are we?

Materials

- Legends (5)
- Protecting nature and culture with Parks Canada Giant Floor Map introductory video (available on the Canadian Geographic Education Giant Floor Map website)
- Parks Canada Mandate and Charter card (1)
- Road Trip Worksheet (5) (extension activity)
- White board markers (extension activity)
- Rulers (extension activity, not provided)
- Calculators (extension activity, not provided)
- Cones (50)
- Ropes (20) (extension activity)

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Formulate questions
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Interrelationships
- Geographic perspective

ecologically responsible use of water resources. It is important to note that national marine conservation areas can also have reserve status, such as Gwaii Haanas.

There is currently only one **national urban park** in Canada (Rouge National Urban Park). The urban park system will be created with diverse partners to help establish parks in more of Canada's large urban centres with the goal of connecting people with nature and working towards reconciliation with Indigenous Peoples.

National historic sites can be found in every province and territory, from wilderness and archaeological sites to sacred spaces and more. These sites help visitors learn more about Canada's histories and cultures.

To help students further explore the map and become familiar with the different Parks Canada locations, play a game of Simon Says. Give each student a small stack of cones. You can use the following prompts or create your own. If a student moves but you have not said "Simon says," they must perform a movement of your choosing until the next prompt (e.g., hop on one leg, do squats or push ups, hold a yoga pose). Remind students to move mindfully around the map and have students call out where they land and place a cone on that location. Multiple students may land on the same location.

- *[Simon says] find a national historic site farther north than 52° north.*
- *[Simon says] find a national park east of 110° west.*
- *[Simon says] find a national marine conservation area.*
- *[Simon says] find the national urban park.*
- *[Simon says] find a national park that is situated on both land and water.*

Now, explain that Parks Canada works closely with Indigenous communities and Knowledge Holders to conserve land, nature, cultures, and histories.

- *[Simon says] find a Parks Canada location on treaty land.*
- *[Simon says] find a Parks Canada location near an Indigenous community.*
- *[Simon says] find a Parks Canada location with an Indigenous name.*

Conclusion

Once you feel students have sufficiently explored the map and locations of places Parks Canada plays a role in administering, gather students together and have a discussion about what makes a place important and worth protecting. You can use the following to prompt discussion: Why are these places important and to whom? What makes a place important to you?

Now that students know a bit more about Parks Canada and what they do, ask students what careers might exist at Parks Canada. Ask students to think about all of the jobs involved in the various sites.

Exploring with Parks Canada

- Students can learn about how Parks Canada sites get chosen and come up with a proposal for a new Parks Canada location.
- Students can learn about the places they would like to visit using the interactive map on the Parks Canada website.

- Divide students into five small groups. Each group will choose a Parks Canada location that they would like to visit and will place a cone on that location. Have groups trace the route they would like to take from their community to that location using ropes and ask them to fill out the **Road Trip Worksheet** using whiteboard markers. For younger students, this activity can be done as a whole class, answering only the first question or having a discussion about modes of transportation to the location. For older students, they can do further research into different modes of transport to the location and the time and distance each would take. Explain to students how to use the scale on the map to calculate distance in kilometres, if needed.

Modifications

Teachers can modify the Simon Says prompts to be simpler or more difficult.

Supporting resources

- Create and support new protected areas
- National parks
- National urban parks
- National marine conservation areas
- National historic sites

2 We are partners, working together to protect cultures and histories

Overview

In this activity, students will learn about how Parks Canada works with Indigenous communities to protect and revitalize bison populations. This conservation work is also important in advancing truth and reconciliation, by helping protect Indigenous cultures and ways of life.

Time required

45 minutes

Grades

6-8 (modifications provided)

Subjects

Geography, History, Science

Topics

Indigenous histories, species at risk, truth and reconciliation

Learning objectives

Students will:

- Understand the history of bison populations in Canada.
- Appreciate the importance of bison to certain Indigenous communities.
- Locate Parks Canada locations that have managed bison populations.
- Identify Parks Canada's role in managing bison populations.
- Illustrate bison transfers using ropes.

Materials

- Bison Facts card (5)
- Bison Transfer Map card (4)
- Devices with internet access
- Ropes (20)
- Cones (50)

Lesson implementation

Minds on

Ask students to reflect on something that is important to their culture. This might be an animal, a food or dish, an instrument, or a religious text. What would happen to their culture if this item was removed?

Remind students that the land on which they stand is Indigenous land. This is why many schools and organizations will begin an assembly or presentation with a land acknowledgement. For a land acknowledgement to be meaningful it should be informed and based on the local context. Do students know on which Indigenous nation's land their community is located? Students can use the Giant Floor Map to help them. Indigenous Peoples have been living on the land, water, and ice since time immemorial. It is important to acknowledge that Indigenous Peoples continue to have a presence on the land, including protected places, and they are the traditional stewards of this land.

Land acknowledgements are only one of the ways that individuals and organizations can move towards reconciliation with Indigenous Peoples. In this lesson, students will appreciate the importance of partnerships between Indigenous communities and agencies like Parks Canada to help advance truth and reconciliation. This involves learning about, honouring, and recognizing Indigenous contributions, cultures, and histories; however, reconciliation means different things to different people. Ask students to reflect on what reconciliation means to them.

Have students walk around the map and locate and place a cone on the following locations:

- Elk Island National Park (Alberta)
- Grasslands National Park (Saskatchewan)
- Prince Albert National Park (Saskatchewan)
- Banff National Park (Alberta)
- Waterton Lakes National Park (Alberta)
- Riding Mountain National Park (Manitoba)
- Rocky Mountain House National Historic Site (Alberta)
- Wood Buffalo National Park (Alberta and Northwest Territories)

Ask students if they know what connects all of these places. Explain that these places have bison populations managed by Parks Canada. Fun fact: At Elk Island National Park, visitors may actually be able to see bison! By allowing visitors the opportunity to see real bison in their natural habitat, Parks Canada is providing a safe and meaningful experience for visitors, who can appreciate the importance of bison in a memorable way, while keeping the safety of bison (and people) a priority. Explain that students will be learning about the powerful partnership between Parks Canada and Indigenous communities through bison conservation.

Action

To engage students' minds, see how much students know about bison by asking them the following questions:

2 We are partners, working together to protect cultures and histories

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Interpret and analyze
- Evaluate and draw conclusions
- Reflect and respond

Geospatial skills

- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Patterns and trends
- Interrelationships
- Geographic perspective

- How much can a bison weigh? *An adult male Wood Bison can weigh 800 to 900 kilograms and can be taller than two metres at their shoulder. The Wood Bison species of bison is the largest wild animal in North America.*
- What do bison eat? *They are herbivores, mainly eating grass and sedges but also lichen, shrubs, leaves, and bark.*
- What provincial or territorial flag has a bison on it? *Manitoba*
- How long can they live? *Around 20 years.*
- Can bison swim? *Yes! They are great swimmers.*
- How high can they jump? *Up to almost 2 metres vertically, or about the height of the average human.*
- How fast can they run? *Up to 60 kilometres per hour.*

Divide students into five groups and distribute a **Bison Facts card** to each group. Discuss the facts on the cards and ask students to explore the area on the Giant Floor Map where bison are found. Remind students to refer to the legend. What do they notice? What communities are in these areas? Are there concentrated areas of roads and cities and how might this affect bison? What is the land cover in these areas and why might it be important for bison? Are there other protected areas nearby?

A Parks Canada project that has helped the bison population grow is the transferring of bison to conservation sites and interested groups. As of 2020, more than 3,400 bison had been transferred for conservation purposes, and more than 600 of those were transferred to Indigenous communities. Restoring bison to the landscape is an opportunity to renew cultural and historical connections.

Explain to students that they are now going to be able to reproduce, on the Giant Floor Map, the transfer of bison throughout western Canada. Divide students into four groups and give each group a rope of a different colour, a device and a **Bison Transfer Map card**. Assign each group one of the following: a) Plains Bison transfers, b) Wood Bison transfers, c) Plains Bison transfers to Indigenous communities, and d) Wood Bison transfers to Indigenous communities. Have students take turns, using their ropes to mark the transfer routes of their bison. Note: Many of these routes converge in certain areas, so students may need to rotate. If students run out of rope of their colour, they can lay out cones along the transfer route instead. As the **Bison Transfer Map** does not contain many labelled locations, students should first try to make an educated guess as to the approximate locations of the start and end points, using the **Bison Transfer Map card** and Giant Floor Map for clues. There are a few locations that are not labelled on the Giant Floor Map. If a location is not labelled, have students think about where bison might have been transferred in this area and why.

Students can now use their device and visit the Parks Canada "Bison and the power of partnerships" website. Have them scroll down to Bison transfers at Parks Canada where they can watch a timelapse video of the types of bison Parks Canada has transferred and who has received them. Were they able to correctly identify the locations of the transfers?

Have students examine the map and have a discussion about how the return of bison can advance reconciliation with Indigenous Peoples:

2 We are partners, working together to protect cultures and histories

- What do they notice about the locations of different transfers and where subspecies are located?
- What Indigenous communities and language groups are located near bison populations?
- Why is it important to restore bison back onto the traditional territories of Indigenous communities? Possible answers: *The return of bison can help advance reconciliation with Indigenous communities. Many Indigenous communities have a strong cultural and historical connection with bison. Bison populations were decimated by European settlers, not Indigenous Peoples. Reconciliation is required as a step towards acknowledging the harm settlers inflicted on Indigenous Peoples, bison, and the land.*

Conclusion

Ask students to revisit the question they reflected on at the beginning of the lesson: What would happen to their culture if an important item was removed? Reiterate the fact that the return of bison can mean the return of cultural practices to these Indigenous communities. Now, ask students to brainstorm and share a few ways they can help advance reconciliation in their school or community.

Explore with Parks Canada

- Have students watch the Parks Canada video Restoring Healthy Bison Populations and/or The Return of Plains Bison to The Key First Nation.
- Students can watch a timelapse of the bison transfers here.
- Students can conduct further research into the cultural significance of bison to Indigenous communities, beginning with the Parks Canada video "Canada's Bison: Restoring a Legacy."

Modifications

- For younger students, complete the **Consistency: Bison Facts card** activity as a large group.
- For younger students, lay out transfer routes one at a time instead of simultaneously.
- For older students, have them examine the locations of the bison transfers on the Giant Floor Map and think about potential threats to the populations that would need to be managed by either Parks Canada, local or federal governments, or communities.

Supporting resources

- I Was Born There: Torngat Mountains National Park
- Bison and the power of partnerships
- Like Distant Thunder: Canada's Bison Conservation Story
- The Return of the Bison to Wanuskewin Heritage Park

3 We are storytellers, protecting cultural heritage

Overview

Students will become history detectives as they learn about the importance of objects and artifacts in helping us understand the history of the peoples who have lived on and visited this land.

Time required

45 minutes

Grades

6-8 (modifications provided)

Subjects

Geography, History

Topics

Material culture (archeological artifacts and historical objects)

Learning objectives

Students will:

- Understand the importance of Parks Canada in uncovering, displaying, and protecting objects and artifacts.
- Locate which Parks Canada locations are connected to specific objects and artifacts.
- Analyze images and information of objects and artifacts to guess which region they are associated with.

Materials

- Artifact/object cards (16)
- Artifact/object Teacher Answer Sheet (1)
- Devices with internet access or paper and writing utensils (extension activity)
- Careers in Cultural Heritage at Parks Canada (extension activity)

Lesson implementation

Minds on

Have students walk around the map and examine the icons displayed around the edge. Why are these icons part of the map? What do students think these icons represent? Explain that these icons represent artifacts and objects related to places Parks Canada plays a role in administering. Did students know that Parks Canada has an archaeology department? Part of Parks Canada's mandate and charter includes the protection of archaeological heritage. This is like a record of the cultures and histories on this land. There are even archeological sites underwater!

Have a brief discussion about what should be considered when searching for, uncovering, preserving, researching, and displaying artifacts and objects. Some examples include:

- Why is it important to learn about these items and protect cultural sites?
- Who do the artifacts and objects belong to? Do the items hold spiritual significance to a culture or family?
- How can the item be displayed while preserving it?
- How can we learn about the item? What do we learn through studying objects that we can't when using texts?
- Possible answers: *They help us learn about cultures or connect to our own culture. They can help us protect culturally important places. They help us learn about our evolution and history.*

Action

In this lesson, students will get a chance to learn about some artifacts and objects connected to Parks Canada locations and become history detectives as they attempt to uncover the history of their item. Explain that students will receive a card with the image of an item and icon, some basic information about what the object is, and the Parks Canada location to which it is connected. Students will discuss with their group the following questions, some of which may be easier to answer for certain objects:

- What is this object?
- How old might it be?
- What was its use?
- What materials is it made of?
- Who might have made it or used it?
- What can it tell us about those people?
- How does it relate to a Parks Canada location?

Divide students into 8-10 groups. Distribute an Artifact/object card to each group (other cards can be used in a second round). Remind students to explore the area of the map that they think is connected to their item, using the border for clues. What is the geography and how could that provide clues as to the item's material and use? Encourage students to get creative and to share all of their thoughts regardless of if they think they are right or not; exploration and imagination are keys to discovery. Ask groups to move to the location they believe is connected to their artifact. Have groups take turns sharing their discovery with the class. The teacher can then read from the **Artifact/object Teacher Answer Sheet**.

3 We are storytellers, protecting cultural heritage

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Ask geographic questions
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate
- Reflect and respond

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Interrelationships
- Geographic perspective

Conclusion

Gather students together and revisit the questions you discussed at the beginning of the lesson:

- What should be considered when searching for, uncovering, researching, preserving, and displaying artifacts and objects?
- Why is it important to learn about artifacts and objects, and protect cultural sites?
- Who do the artifacts and objects belong to?
- Do they hold spiritual significance to a culture or family? How can they be displayed safely?
- How can we learn about them?
- What do we learn through studying artifacts and objects that we can't when using texts?
- Have any of their answers changed?

Explore with Parks Canada

- Students can watch a video on the Parks Canada underwater archaeology website.
- Students can learn about what Parks Canada Archeology is doing on their X page (formerly Twitter).
- Ask students to think about the different artifacts and objects they learned about, then about an area of history and culture that interests them. Are they interested in dinosaurs, Indigenous cultures, the Norse? Perhaps they're more interested in recent history or politics. Distribute a piece of paper and a writing utensil, or a device. Ask students to travel on the map to an area of Canada they would like to visit in the future for research purposes and sit down when they have reached their destination. Perhaps they would like to participate in an archeological dig for dinosaur fossils. Where would be the best place to travel? Maybe they are interested in uncovering untold stories about past politicians and their rivals. Or maybe they are interested in partnering with Indigenous communities to preserve languages. Ask students to write about the place they have chosen and why.

Modifications

- For older students, have them conduct further research into their artifact or object.
- For younger students, choose a selection of relevant cards and complete the activity as a class or provide them with more clues.

Supporting resources

- Parks Canada Archeology

4 We are protectors of the land

Overview

In this activity, students will learn about the varied terrestrial ecozones found in Canada as well as animals located in these ecozones. Students will understand how Parks Canada is working to help limit the stressors faced by these animals.

Time required

75 minutes

Grades

6-8 (modifications included)

Subjects

Geography, Science

Topics

Climate change, terrestrial ecozones, species conservation

Learning objectives

Students will:

- Locate terrestrial ecozones in Canada.
- Plot the habitats of a selection of birds.
- Locate herd populations of caribou in Canada.
- Understand the cultural significance of caribou to Indigenous Peoples.
- Appreciate the importance of sharing knowledge for conservation efforts.

Materials

- Terrestrial Ecozones cards (5)
- Ropes (20)
- Cones (50)
- Bird Species cards (5)
- Caribou Populations card (5)
- Devices with internet access
- Paper and writing utensils

Lesson implementation

Minds on

Bring students onto the Giant Floor Map and ask them what different areas of Canada they know, for example, east/north/south/west, Arctic/Prairies/West Coast/Atlantic/Central, or provinces and territories. Ask if any students know anything about terrestrial ecozones. Explain that there are 15 terrestrial ecozones in Canada. They are areas of land in Canada that have unique landforms and climates that distinguish them from other terrestrial ecozones. Each ecozone will have its own plants, wildlife, and human activities.

Divide students into five groups and distribute a **Terrestrial Ecozone card** to each. Ask them to choose a Parks Canada location they would like to visit. In what ecozone is it located? Does a certain ecozone have more locations than others, and if so, why do they think that is?

Once students have had sufficient time to identify and locate the zones, invite a discussion about the ecozones and Canada's geography and nature, using the Giant Floor Map to help with answers. Possible questions for discussion:

- What type of land cover is located within different ecozones?
- What areas do you think have the most and least animals, insects, and plants? Why? *Typically, environments of high species diversity also contain diverse habitats, species competition, and genetic diversity.*
- How would this ecozone change over the seasons and how would that affect the region's wildlife and human activities?
- How could climate change be affecting this region and what impact could that have on local populations of people and wildlife? What could be done to minimize these impacts?
- What zone/region do you think is the most important to protect? *Note: This question will most likely yield a variety of responses. It is important to discuss that there may not be one "right" answer to this question.*

Action

Now that students are familiar with the varied ecozones in Canada, they will have the opportunity to learn about two groups of animals, birds and caribou. Students will examine how these animals live and travel throughout Canada's ecozones while learning about how climate change is affecting them. Through the management of protected areas, its research, and its partnerships with the community, including Indigenous Knowledge Holders, Parks Canada works to protect the lands, ice and waters, and the species within these places. This ensures that people can learn about and experience Canada's natural world today, and in the future.

Divide students into five groups. Distribute a **Bird Migration card,** a rope, and cones to each group. Have students plot the range (where it lives, breeds, and if applicable, migrates), then place cones on Parks Canada locations they believe are important to their species. Ask students to discuss in their groups:

- What Parks Canada locations are situated within or near the range of the bird?
- What ecozones does the bird live in?

4 We are protectors of the land

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Ask geographic questions
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate
- Reflect and respond

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Patterns and trends
- Interrelationships
- Geographic perspective

- What interactions do you think birds have with their environment (e.g., food sources, other birds as competitors or mates, environmental cues like temperatures, precipitation patterns, migrations patterns)?
- Where do you think the bird can stop for food and rest?
- How do you think climate change is affecting this bird?

Ask students to share with the class what they learned about their species and how they think places, which Parks Canada plays a role in administering, can help bird populations to avoid further decline.

Some notes of interest:

- *For some species of birds, climate change is causing eggs to be laid earlier. There are also shifts in bird migration times and ranges as birds move in search of new suitable habitat elsewhere. When they move to find suitable habitat, these birds are met with unfamiliar habitats and new predators. Climate change is causing a shift in environmental cues, causing misalignments with important food sources.*
- *Protected areas act as "climate refuges" for wildlife, places where the effects of climate change are reduced. In protected areas, such as areas protected by Parks Canada, natural features help to defend against the effects of climate change. For example, heat can be absorbed by lakes, animals on islands can be protected from wildfires, and animals can avoid other stressors like sprawling human development, logging, and other industrial activity that they might experience elsewhere.*
- *Parks Canada works with partners to help improve and expand natural and protected spaces to help bird populations adapt to a changing climate.*

Climate change is not only disproportionately affecting animals, but certain communities as well. Since time immemorial, Indigenous Peoples have lived in a balanced relationship with the land and developed a strong connection to it and its inhabitants. Their reliance on the land nurtures a deep relationship of respect and reciprocity. Indigenous Peoples are often the first to notice and be affected by climate change, due to their longstanding observations and their reliance on the land. Caribou play an important part in some Indigenous traditions and are animals of extreme importance to many Indigenous Peoples. The caribou harvest was and remains an important time to develop kin and community relationships, and for Elders to pass on knowledge to younger generations. Caribou is also an important food source.

Distribute copies of the **Caribou populations card** and have students, in their groups, examine where the caribou herds could be found on the map. Ask students to examine the Giant Floor Map's elements: communities, cities, roads, land cover, bodies of water, ice, etc. Ask students to reflect on all the factors that could be affecting caribou. Examples could include:

- *Roads and pipelines cause habitat loss in mature forests needed by caribou. This also gives predators better access to caribou. As mature forests become young forests due to logging and/or wildfires, elk and moose move in as they prefer these areas. As their populations increase, wolves move into the areas, which also threatens caribou.*
- *Human disturbance: Caribou can be pushed off their land by human activities like skiing and snowmobiling. Creating or packing down the trails in the wintertime can*

4 We are protectors of the land

also lead wolves to caribou habitat. Collisions with cars can kill caribou. Dogs and aircraft noise can disturb herds.

- *Climate change means varying ice and snow levels which makes it harder for caribou to find winter food. Wildfires and insect outbreaks are also on the rise because of climate change.*

Ask students which Parks Canada locations and Indigenous communities overlap with caribou populations and how they think this affects caribou.

Give each group a device and direct them to watch the Parks Canada video Connecting Landscapes for Newfoundland Caribou. Alternate groups that are watching the video and those that are examining caribou populations to avoid too much video noise. This video can also be watched in the classroom after the lesson. As students are watching the video, have them note down ways that Parks Canada is working to help conserve and restore the caribou population. What types of jobs are needed to carry out this work and what organizations might be involved? Encourage students to think beyond what is shown in the video. How would Indigenous Knowledge Holders be essential to the conservation of caribou populations? What other jobs are needed for this type of work that were not shown in the video?

Partnership and collaboration are essential when approaching species conservation. Each group comes with their own strengths, knowledge, and abilities that can complement one another. Indigenous Peoples have unique and important perspectives when it comes to land, ice, water, resource, and animal management, and long-lasting conservation actions.

Conclusion

Gather students together and ask them to think about all the land they covered while plotting bird ranges and caribou populations and the threats that face these animals. Have students look at the protected areas on the map and remind students that animals do not stick to human political boundaries. Animals migrate across borders into the United States or Mexico. Ask students to reflect on how these animals can be protected at an international level to ensure that their entire ranges are safe.

Explore with Parks Canada

- As a class, have students select a species in Canada they would like to protect. Students will research this species, including migration patterns (if applicable), food, habitat, threats, and conservation status. Students will then come up with an action plan of what needs to be done to protect this animal and ensure its survival. Students will write a letter to their elected provincial/territorial or federal government member of parliament urging them to take action on this matter. The teacher has the option to send this letter.
- Activity at home with parent/guardian:
  Research is at the heart of conservation, as it allows us to know what is threatening wildlife populations and how to solve these issues. By recording sightings of plants, animals, insects, and fungi on applications such as iNaturalist, people can help track species, including invasive ones. Encourage your students to become citizen scientists at home by downloading iNaturalist (insert hyperlink) on a device. Outings in the backyard and community, or to a Parks Canada location can

4 We are protectors of the land

be organized. Suggest that students and parents/guardians take photos of plants and wildlife. These observations may even be verified by other users, including scientists! Note: This app requires an account and parents/guardians can sign up for students. Internet access is required to immediately upload photos for identification, but these can be uploaded upon returning to a location with Wifi.

- Download the iNaturalist app on a device.
- Organize an outing in the backyard, community, or to a Parks Canada location.
- Encourage students and parents/guardians to take photos of plants and wildlife. Note that the app requires internet access to immediately upload photos to iNaturalist for identification. Photos can be uploaded upon returning to a location with Wifi. Your observations may even be verified by other users, including scientists!

Modifications

- For younger students, complete the activities as a large class.
- For younger students, print out a map of Canada and have them colour in the range of their bird.
- For older students, have them practise their fieldwork skills by recording bird sightings in their school yard or community throughout the school year to document changes.
- For older students, have them closely examine the map when learning about their bird species and come up with a list of all the ways humans might be positively or negatively affecting bird populations.

Supporting resources

- Parks Canada caribou recovery
- Parks Canada birds and climate change
- Indigenous relations at Parks Canada
- National parks can help birds adapt to climate change
- The Candid Caribou Project
- Ecological Connectivity
- Nature and science videos

5 We are protectors of nature

Overview

In this activity, students will learn about Parks Canada's role in protecting species at risk of extinction through the management of protected areas.

Time required

50 minutes

Grades

6-8 (modifications included)

Subjects

Geography, Science, Math

Topics

Species at risk, conservation

Learning objectives

Students will:

- Measure the surface area of national parks, national parks reserves, national marine protected areas, the Canadian landmark and national urban park.
- Identify the locations of a variety of species at risk in Canada.
- Understand the threats facing species at risk in Canada and what conservation efforts are being undertaken to protect them.

Materials

- Rulers (not provided)
- Calculators (not provided)
- Ropes (20)
- Cones (50)
- Surface Areas card (1)
- Species at Risk cards (6)
- Species at Risk Teacher Answer Sheet (1)

Lesson implementation

Minds on

Invite students onto the map, each with a ruler and calculator, and ask them to locate national parks, national park reserves, national marine conservation areas, the national urban park, and the Canadian landmark. Ask students to select a location and measure its surface area (both land and water) to the best of their abilities. Remind students to divide up the area into shapes, measure the surface area of those shapes, and then add it all together. Use the Giant Floor Map's scale to calculate the size of their location in square kilometres. Use the following prompts to have a discussion about the amount of area Parks Canada manages:

- What was the smallest and largest location measured?
- Why do you think these protected areas come in so many different shapes?
- Do any places cross provincial or territorial boundaries?
- Why might small protected areas be just as important as large ones?

Afterwards, students can compare their calculations using the **Surface Areas card**. Have students add up all of the surface area that is currently protected by Parks Canada.

Action

Explain to students that, with all of their locations, Parks Canada manages and protects more than 450,000 km^2 of lands, waters, and sea ice, as well as all the species within these areas. This protection is essential to Canada's commitment to protect biodiversity by conserving 25 per cent of land and oceans by 2025, with a goal of protecting 30 per cent by 2030.

Tell students that part of Parks Canada's responsibility in preserving biodiversity is under the Species At Risk Act (SARA). This is a federal act that legally protects certain species to prevent them from becoming extinct and to aid in their population recovery. There are 521 plant and animal species currently at risk of extinction under SARA. Parks Canada is responsible for the protection and recovery of species included on this list that are found in national parks and park reserves, national marine conservation areas, national urban parks, and national historic sites. Half the species listed can be found in a place Parks Canada plays a role in administering!

Divide students into six groups and distribute a **Species at Risk card** to each group. Ask students to examine the information on the card to learn about their species. Using the provided cones and ropes, have students plot the habitats, breeding grounds, and/or migration patterns of their species on the Giant Floor Map. Examining the map, ask students to discuss the following in their groups:

- Using the map for clues, what potential threats are there to this species? *Habitat destruction. Climate change. Illegal hunting or gathering. Pollution. Imbalance in the ecosystem. Collisions with motor vehicles. Irresponsible recreation.*
- Which Parks Canada locations overlap with this species' habitat?
- Which Indigenous communities overlap with this species' habitat?
- Why are partnerships, such as the one between Parks Canada and Indigenous communities, important in protecting these species?

5 We are protectors of nature

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Ask geographic questions
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate
- Reflect and respond

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Patterns and trends
- Interrelationships
- Geographic perspective

Using the **Species at Risk Teacher Answer Sheet**, discuss as a class students' thoughts about risks to their species and help clarify any answers or add any additional threats not mentioned. Discuss what is currently being done in Canada by agencies like Parks Canada, Indigenous partners, provinces and territories, and key partners to help species at risk.

Conclusion

Have students look at the map and how they have plotted the habitats and breeding grounds of their species. Do they notice any patterns in where their species lives or breeds? What might explain those patterns?

Explore with Parks Canada

- It is the actions not only of agencies like Parks Canada but the education and actions of individuals that will help species' populations recover in Canada and worldwide. Students will have the opportunity to use their knowledge and voices to create a public awareness campaign about a species at risk. As a class or in groups, students will choose a species that is at risk of extinction. They will research the risks to this species and what is being done to help the population recover. Students will then design a public awareness campaign either in their school or community to help the public learn about what they can do to help this species recover.
  - Resources:
    - » Hinterland Who's Who
    - » David Suzuki Foundation
    - » World Wildlife Fund Canada
    - » Canadian Wildlife Federation
    - » Canada's path to 25 per cent ocean protection by 2025
    - » Parks Canada
      - Terrestrial invasive alien species
      - Aquatic invasive species
      - Restore and recover nature
      - Nature and science
- Students will explore their school grounds, community, local park/forest, or Parks Canada location to identify different factors that affect species, positively or negatively. Help prepare students before going out by printing off pictures of invasive and native species in your community. *Negative impacts: Invasive species, urban development, roads, hikers and vehicles not staying on the trails, litter, things that contribute to climate change, etc. Positive impacts: Bird feeders with correct food, nesting boxes, native plant species, fallen trees that are left in place, gardens instead of lawns, things used for fighting climate change such as solar panels, garbage cans, and people cleaning up litter, etc.*

Modifications

- Activities can be completed as a class instead of in groups.
- Complete one measurement of the surface area of one Parks Canada location as a class.
- For older students, have them explore the Giant Floor Map and propose new areas to help protect their species using the information on the card and internet research (if necessary).

- For older students, have them examine highways, roads, and rail lines then brainstorm how cities can be better planned with species at risk in mind.

Supporting resources

- Hinterland Who's Who
- David Suzuki Foundation
- World Wildlife Fund Canada
- Canadian Wildlife Federation
- Canada's path to 25 per cent ocean protection by 2025
- Parks Canada
  - Terrestrial invasive alien species
  - Aquatic invasive species
  - Restore and recover nature
  - Nature and science
  - Atlantic parks salmon recovery
  - Saving cold water loving fish
  - Making life better for bats and people in Canada
- Canadian Geographic Education: Species at Risk in Canada

6 We are protectors of water

Overview

This activity will teach students about threats currently facing whales around Canada and how Parks Canada is working with partners and communities to help protect whale populations.

Time required

40 minutes

Grades

6-8 (modifications included)

Subjects

Geography, Science

Topics

Water protection, whales

Learning objectives

Students will:

- Understand how water connects people and nature across Canada and the world.
- Learn where certain whale populations are in Canada.
- Understand the threats facing whale populations and conservation efforts.

Materials

- Whale Species cards (5)
- Whale Connection cards (9)
- Cones (50)

Lesson implementation

Minds on

Gather students on the Giant Floor Map and ask them how they think their lives are connected with whales and marine life. Students may live on a coast and feel very connected, while others may live in the Prairies and feel they have minimal connection. Ask students to stand on any body of water. Have students try to trace the path of water from where they are standing to another body of water, and then do it again from that body of water. Students should get an idea of how water connects all places in Canada to each other, the ocean, and the rest of the world. This means that even people in the middle of Canada can still have an impact on the ocean and marine life.

Action

Review with students what the term "national marine conservation area" means and, using the Giant Floor Map, find where they are located in Canada. Remind students that it is not only national marine conservation areas that are important for protecting water, but national parks, national park reserves, and national urban parks, because they have water within their boundaries. Have students find areas of water that are protected and ask them to consider why water protection is not only important within Canada, but globally, reminding them to reflect on the opening activity where they discovered that water connects humans and fauna all over the world.

Divide students into five groups and distribute a **Whale Species card** to each group. Ask students to study the information on the card and place it on the map where the whale's habitat or breeding grounds are located. Have students share what they learned about their species of whale.

Distribute a **Whale Connection card** to each group (some groups may have two cards). Instruct students to read the information on their cards. These cards will either describe the different threats facing whales today or efforts being done to help protect whale populations. Once students have a good understanding of their card, have them stand on an area of the Giant Floor Map that they feel would represent their card well. For example, students who have learned about the threat of noise from boats might stand on a shipping route area of the map. Have students explain what they learned from their card and why they chose to stand where they did.

Now that students have an understanding of the importance of marine ecosystems to whales and the threats these animals face, ask students why else they think it is important to protect water. Explain to students that many cultures around the world and in Canada place a high value on water. Indigenous Peoples in Canada are deeply connected to water through cultures, histories, travel, ceremony, and survival. In the Indigenous worldview, water is not simply a resource, it has a spirit and is alive. Discuss with students how water has connected Indigenous Peoples to hunting and trading grounds, how it houses the resources they use, and how it is used in ceremonies. The protection of water is vital to the protection of Indigenous cultures.

For many in Indigenous communities, their cultural identities are strongly linked with water and their natural surroundings. Have students explore the map and locate Indigenous communities, and the surrounding bodies of water. How do students think water has factored and does factor into the daily lives of people in these

6 We are protectors of water

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Ask geographic questions
- Interpret and analyze
- Evaluate and draw conclusions
- Communicate
- Reflect and respond

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Patterns and trends
- Interrelationships
- Geographic perspective

communities? Why is it important for agencies like Parks Canada to partner with Indigenous communities when planning conservation projects involving water?

Conclusion

Now that students can appreciate how essential it is to protect water and how whale species do not remain solely in Canadian waters but can travel up and down coasts, have them brainstorm different ways they can help protect the planet's waters. This may include eating sustainable seafood, especially salmon (e.g., using guidelines like those created by Ocean Wise), using environmentally-friendly products to reduce ocean contamination, taking part in a shoreline clean-up to help ensure our oceans are plastic free, learning how to navigate in whale habitat, and advocating for ocean and wildlife conservation.

Explore with Parks Canada

- Students can access the Whale Insight interactive map of North Atlantic Right Whale detections and plot those points on the Giant Floor Map using cones.
- Gather students together on the map and ask them to think about other potential sites for national marine conservation areas, taking into account all they have learned. What area would they choose and why?

Modifications

- Have students focus only on whale habits and explore that topic.
- Have students focus on only one species of whale and do the activity as a class.
- Have students explore the bathymetry of areas where whales are located.
- For older students, have them examine the communities around whale populations and discuss how whales and communities might affect one another, positively or negatively.

Supporting resources

- Parks Canada: Restoring a quiet environment for whales
- Parks Canada: Protecting the Southern Resident Killer Whales
- Parks Canada: The St. Lawrence Beluga and Humans at a Crossroads
- Canadian Heritage Rivers System

7 The land is our teacher

Overview

Students will learn about the importance of place names in Indigenous cultures and places Parks Canada plays a role in administering that honour Indigenous place names.

Time required

35 minutes

Grades

6-8 (modifications included)

Subjects

Geography, History

Topics

Indigenous languages

Learning objectives

Students will:

- Locate Parks Canada locations that have Indigenous place names.
- Learn the meaning of a selection of Indigenous place names.
- Identify activities that can be done at various Parks Canada locations.

Materials

- Shared Governance card (1)
- Indigenous Place Name cards (20)
- Activity Badges (24)
- Cones (50)

Lesson implementation

Minds on

Ask students to sit anywhere on the map and close their eyes. Ask them to think about their favourite place, somewhere they feel safe and happy. What is this place and why is it special? Is it indoors or outdoors? Who or what is there? If students feel comfortable, have them share what they thought about.

Ask students to think back to the first lesson where they considered what makes a place important and worth protecting. Many places Parks Canada plays a role in administering are culturally significant to Indigenous Peoples. The protection of these sites is vital to Indigenous cultures and their connections to the land. Place names and accompanying stories give important information such as location of resources, information about past events, or a description of the landscape.

Action

Explain to students that Indigenous Peoples have a significant relationship with the land. Since time immemorial, they have lived in harmony with the land, water, and ice, living seasonally, and using the land responsibly and respectfully. The arrival of Europeans forced a shift in this relationship and has endangered the future of many Indigenous languages and cultures. Parks Canada partners with Indigenous communities and Knowledge Holders to work to protect cultures by teaching visitors about and celebrating Indigenous histories, languages, contributions, and diverse cultures.

One way Parks Canada works with Indigenous communities is through shared governance. This is when authority over a place is shared between groups and decisions are made collectively. Using the **Shared Governance card**, read out three examples of Parks Canada locations that are using this model. Have students locate these places on the map.

What other Parks Canada locations do they think would use a shared governance model and why? Students may have chosen a few locations with Indigenous names, many of which follow a shared governance model. In this lesson, students will have the opportunity to explore the significance behind the names of some of these locations and learn about activities that can be done there.

Divide students into pairs or small groups and distribute the **Indigenous Place Names cards**. Have students locate the Parks Canada location, place a cone on the location, and discuss the following:

- What is the meaning of the name of the location?
- What is the language used for this place name and where else does that language appear on the map?
- Near which communities is this place located?

Students will also see a list of activities that can be done at each location. These are just a few of the many things available to visitors. What other activities do students think might be offered at their location?

Spread the **Activity Badges** around the outside of the map. Once students have discussed their site, ask them to collect one or more of these for things visitors can

7 The land is our teacher

Connections to the Canadian Geography Learning Framework

Geoinquiry

- Evaluate and draw conclusions
- Communicate
- Reflect and respond

Geospatial skills

- Foundational elements
- Spatial representations

Concepts of geographic thinking

- Spatial significance
- Patterns and trends
- Interrelationships
- Geographic perspective

do at that place, then put them next to the location on the map. Explain to students that the symbols displayed on the icons can represent more than one activity. Depending on how many groups there are, students might need to take turns collecting their activity badges or might need to select a different activity if a badge is no longer available.

Conclusion

After students have completed the activities, have them travel across Canada using the Giant Floor Map, visiting the different locations and discovering the different activities that can be done at various places. What is one location they would like to visit and what would they like to do there?

Explore with Parks Canada

- Have students plan a trip to one of the places they learned about using the Parks Canada Indigenous Place Names website.
- Have students think about the importance of place names and how they contribute to a culture's understanding of "place". Why is it important to conserve and reinstate Indigenous place names?
- Have students explore the map and research the meaning behind other place names they see using the StoryMap Stories from the land: Indigenous place names in Canada (Geographical Names Board of Canada) and Original Place Names in the Arctic (Canadian Geographic Education). How many names did they not realize were of Indigenous origin? Are there any current examples in their community of street or name chanes to reflect Indigenous cultures?

Modifications

- Do a class trip, exploring the different locations on the Giant Floor Map one at a time, instead of having students do this activity in groups.
- Have students research what types of conservation of nature and cultures their location is conducting.
- Students can do further research into other traditional Indigenous place names they locate on the Giant Floor Map.

Supporting resources

- Parks Canada
- Indigenous place names
- Mapping Change: Fostering a culture of reconciliation within Parks Canada