

Introduction

ONTARIO has so much to offer its visitors and residents. This vast province is home to more than a third of Canada's population, a quarter of the world's freshwater, and millions of unique species, and distinct landscapes around every corner. From boreal woodlands to wetlands, the Great Lakes to historic waterways, the icy tundra to warm beaches — Ontario is a place full of discovery, history, culture and conservation.

Ontario Parks is the provincial government organization that protects natural and cultural resources through a system of parks and conservation reserves. It protects land in more than 330 provincial parks, covering 82,000 square kilometers — about 8 per cent of the province's surface area. It is dedicated to not only protecting the environment but also working with the public to create sustainable places where people can get outside in nature and enjoy everything the province of Ontario has to offer.

The following Giant Floor Map is unlike anything produced before by Canadian Geographic Education. This 10-by-10-metre vinyl resource highlights the Ontario Parks system as well as Indigenous treaty areas, and urban and rural communities.

Accompanying this map are 15 themed learning activities connected to the Ontario Social Studies and Geography Curriculum and the Canada Geography Learning Framework. These activities focus on Ontario's unique landscape, biodiversity, history, cultural heritage, geology, science and research, ecology and much more! At the heart of each learning activity is an encouragement to everyone who steps on the map to get outside, into parks and green spaces, and to explore this beautiful province.

Canadian Geographic Education and Ontario Parks are excited to make this resource available to all Ontario teachers and encourage them to share their experiences and connect with us at info@cangeoeducation and DiscoverySchool@Ontario.ca or on social media [@CanGeoEdu](https://www.instagram.com/CanGeoEdu) and [@OntarioParks](https://www.instagram.com/OntarioParks).

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INTRODUCTION TO ONTARIO PARKS



Overview

In this activity, students will be introduced to Ontario Parks and learn how to read the Giant Floor Map and the many layers displayed on it.

Time

75 mins

Grade Level

1-5 (This activity is best suited for younger students but can be adapted for all grade levels.)

Learning Goals

- ▷ Students will learn about and discuss Ontario Park's mission and objectives.
- ▷ Students will locate the Ontario provincial parks nearest to their hometown and calculate the distance using the map's scale.
- ▷ Students will learn about the differences between provincial and national parks and locate one of each.
- ▷ Students will learn to read a map and the five components that are present on most maps.

Materials

- ▷ Legends (4)
- ▷ Ontario Parks Mandate card (1)
- ▷ Coloured pylons (16)

Lesson Description

Minds on

Students will independently explore the Giant Floor Map and locate places in Ontario they have visited or may like to visit. Students will also decipher the map using the map's legend.

Action

Students will learn to read the map's scale and find the provincial park closest and farthest to their hometown.

Conclusion

Students will discuss the Ontario Parks' mission statement.

Lesson Implementation

Minds on

Allow time for students to explore the Giant Floor Map on their own and encourage students to locate their hometown by placing a coloured pylon on it. Ask students to locate areas on the map that they are familiar with or have visited and have students describe how this map differs from other maps they have seen.

Ask students what a map is, why maps are important and how maps are used. Ask students how maps have changed over time. What is the purpose of a map? What is the purpose of *this* map? How is the information displayed? Next, inform students that all maps have five key components: scale, legend, title, border and compass. Ask students to locate these five components on the map and to explain their importance.

Using the legend depicted on the map, or the hand-held legends from the teacher's kit, go through the various features and colours on this map to learn about each layer of information displayed on the map. For older students, divide the class into two groups: one group representing human layers and the other group representing physical layers. Have students determine which layers are best suited to their theme. For younger students, decipher the legend as a class. Play a game of Simon Says so students can test their knowledge of the different map layers.

Next, ask students to locate a different provincial park followed by a national park. Explain to students that the main difference between a national and provincial park is that national parks are managed and run by the federal government and provincial or territorial parks are managed by the province or territory they are located in. In Ontario, there are seven national parks and 340 provincial parks. Even though they are run and managed by different levels of governments, they both serve the same purpose — to preserve the natural landscape and provide protection to the land's biodiversity and unique features.





INTRODUCTION TO ONTARIO PARKS



Note to teachers: “Activity 2: Exploring Ontario Parks” examines the Ontario Parks classification system further and explores what makes Ontario Parks unique.

Action

Have students locate a place they have visited before and to stand on it. Allow time for some students to share why they visited these places and to identify the closest provincial park to the places they have chosen. Next, ask the class what they notice about the places students have visited. What patterns stand out? What can they conclude about the places students have visited and have not visited. Repeat this process while asking students to stand on a place that they want to visit and ask them to explain why. Finally, ask students to stand on a provincial park they have visited or want to visit. Allow time for students to share their experiences during their visit or why they want to visit there.

Explain to students that they are going to use their map-reading skills to calculate distance using the map’s scale. Ask students to place a **red** pylon on the provincial park closest to their home community, a **yellow** pylon on the provincial park farthest from their hometown, a **green** pylon on the largest provincial park, and a **blue** pylon on the park that most students have visited. Ask students where these parks are located in relation to one another.

Next, place students in pairs or small groups and have one person from each group measure their foot on the map’s scale, which is located at each corner of the map. How many kilometers does their foot represent? Have each group choose a town and calculate the distance from that town to each of the four pylons. Encourage students to calculate the distance by staying on paved roads, gravel roads, or even by following waterways. Once students have their calculations, ask for volunteers to share their calculations with the class. Encourage students highlight some key features (e.g., communities, lakes, road names) along the way.

Conclusion and Consolidation

Now that students are more familiar with Ontario Parks and how to read the map, conclude the lesson with a class discussion about the importance of Ontario Parks. Read the mission and objectives from the Ontario Parks Mission Card to the class.

Create a classroom discussion around the following questions:

- How are the natural and cultural resources protected?
- How is Ontario Parks a system?
- Why is it important to ensure Ontario Parks remain sustainable?
- Inspiration, enjoyment and education are the key pillars in the Ontario Parks mission statement. Ask students who have visited a provincial park before to connect their experience in the park with one of these pillars.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships

Inquiry Process

- ▷ Formulate questions
- ▷ Gather and organize
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 1: A2, A3, B2, B3
- ▷ Grade 2: B1, B2, B3
- ▷ Grade 3: A2, B1, B2, B3
- ▷ Grade 4: B2, B3
- ▷ Grade 5: B1, B2, B3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





INTRODUCTION TO ONTARIO PARKS



Extend your geographical thinking

Send an email home to parents and ask them to share which provincial parks they have visited. Create a class tally and then show the data either on the Giant Floor Map using the coloured pylons provided or with student-made cards. Invite parents to come visit the map after school hours and have students highlight and describe the geographical patterns and trends of Ontario Parks visits.

Modifications

Multiple modifications can be made to cater to students' level of learning. When deciphering the map's layers, students can do this together as a class, individually, or in small groups. When exploring all the places students have visited before, students can make a list of all the places they have visited prior to visiting the Giant Floor Map and bring this list with them to help with their exploring. For older students, the teacher does not need to be the only one asking discussion questions. Have students come up with a question to ask the rest of the class to help learn more about Ontario Parks.



INTRODUCTION TO ONTARIO PARKS



2

EXPLORING ONTARIO PARKS

Overview

In this activity, students will explore Ontario Parks in greater detail and learn about its classification system as well as key facts about each provincial park.

Time

75 mins

Grade Level

4-9 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will locate each provincial park in Ontario.
- ▷ Students will learn about the Ontario Parks classification system and how each park is classified.
- ▷ Students will examine provincial park data and use the data and provided props to display existing patterns and trends.

Materials

- ▷ Pylons (16)
- ▷ Icon card (1)
- ▷ Ontario Parks cards (126)

Lesson Description

Minds on

Students will locate all 340 provincial parks in Ontario and discuss the difference between an operating park and a non-operating park.

Action

Students will learn about Ontario Parks' six classifications and identify a park from each one.

Conclusion

Students will explore and analyze map data associated with the network of Ontario Parks and highlight key patterns that exist in the data. Students will apply what they have learned about the various provincial parks and create a clue game with the class.

Lesson Implementation

Minds on

Allow time for students to explore the Giant Floor Map independently. Review with students the various layers labelled on the map.

Using the Ontario Parks cards provided, have students work together to locate the provincial park on each card and place the cards on the park with the picture side facing up. Allow no more than 5-7 minutes for students to do this. Once students have placed as many parks on the map as they can, ask students to stand on the map's border and walk around the perimeter of the map looking at the images. Ask students which images stand out to them? Which areas on the map have the most parks and why? Explain that there are approximately 340 Ontario Parks in total, but not all of them are operating. Ask students to locate the parks that are non-operating and ask them what they think this means. Explain that a non-operating park usually means that there is no organized camping or programming offered at that park.

Action

Next, explain that Ontario Parks uses a classification system to divide the provincial parks into categories that best describe what makes each park unique. These classifications are:

- Recreational
- Cultural Heritage
- Natural Environment
- Nature Reserve
- Waterway
- Wilderness



2

EXPLORING ONTARIO PARKS

Discuss with students the difference between each class and ask students to walk around the map and to locate a provincial park from each classification. Inform students that some provincial parks are marked as unclassified. An unclassified park is referred to as a dedicated protected area and is regulated under the Provincial Parks and Conservation Reserves Act. These parks will remain unclassified until community based land use planning through the Far North Land Use Planning Initiative is completed. To help students further understand and locate parks from each class, play a scavenger hunt with them. Ask students the following questions to get them searching:

- What is the name of the biggest park and what class does it belong to?
- Where are all of the waterway class parks located?
- What is the name of a park located on Lake Ontario? Lake Superior? Lake Huron?
- What is the name of the park closest to your home community and what class does it belong to?

Now that students are familiar with the different classes of Ontario Parks, divide students into six groups, each group representing a different class. Have each group sit around the Giant Floor Map border. Have each student collect five different cards that match their class and head back to their group. Bring attention to the information provided on the back of the cards. Ask students what kind of information or data would be valuable to help understand what a park has to offer? Allow time for students to brainstorm as many ideas as possible, then ask each group to share some of their ideas with the class. Some examples include: number of visitors, facilities offered, seasonal programs, types of camping, and parking. Once students have shared their ideas, ask them why it is important to keep track of this information.

Conclusion and Consolidation

Collecting data, analyzing data, and knowing how to visualize it in a clear and organized way are important skills to have. Now that students have examined and discussed the information on the five cards under their select class, have each group search for patterns and trends that exist by comparing and contrasting the information provided on the back of the cards. What patterns or trends do they see? What conclusions can they draw about the number of visitors, park locations, classes, and activities offered. When students are ready, have each group select a spokesperson to share their thoughts with the rest of the class. Conclude the lesson by highlighting that although there are six classes in the Ontario Parks system, each park is unique in its own way.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

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

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 4: B1, B2, B3
- ▷ Grade 5: B1, B2, B3
- ▷ Grade 6: A1, A2, B1
- ▷ Grade 7: A1, A2, B3
- ▷ Grade 8: A1, B3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, B3, D3, E2, E3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





2

EXPLORING ONTARIO PARKS

Extend your geographical thinking

Now that students are familiar with how many provincial parks there are in Ontario, the classification system and the type of data and statistics that are collected, play a clue game with your students. Ask students to secretly select one Ontario park and to come up with clues for the rest of the class to guess. Use this as an example:

- 1. I was established in 1893 as the first Ontario Park.*
- 2. Hundreds of thousands of people visit me each year to see my fall colours.*
- 3. I am classified as a “Natural Environment Park.”*
- 4. I am a great location for canoeing and fishing.*

▷ Which park am I? (Answer: Algonquin)

Allow time for students to think up their own clues and ask for some volunteers to share their clues with the class. To make this game easier for younger students, students can be divided into six groups, each group representing a different classification group. Students can create their clues for those parks only.

Modifications

As students explore the Ontario provincial parks, encourage them to bring a notebook on the Giant Floor Map with them and write down their findings, thoughts, and questions. If available, bring hand-held devices onto the map and use them to further explore data or collect and present data.



EXPLORING ONTARIO PARKS



3

BUILDING A PARK SYSTEM

Overview

The objective of this lesson plan is to highlight the growth of the Ontario Parks system and to learn about the different motivations for creating specific parks.

Time

75 Minutes (This activity can be divided up into multiple class periods.)

Grade Level

4-12

Learning Goals

- ▷ Students will learn about the early beginnings of the Ontario Parks system and the subsequent post-Second World War recreation boom.
- ▷ Students will discover that societal trends, public input and lobbying, and the efforts of park planners all have a major impact on the creation of parks.
- ▷ The classification of parks and the zoning within parks helps to create a balanced park system.

Materials

- ▷ First 8 Parks cards (8)
- ▷ Park Creation cards (12)
- ▷ Park Establishment List (1)
- ▷ Coloured pylons (20)
- ▷ Coloured blocks (50)

Lesson Description

Minds on

Students will explore the creation of a park by understanding how the first eight Ontario Parks were created.

Action

Students will gain a better understanding of the complex process of establishing new parks and the development of a parks system.

Conclusion

Students will have a discussion around the role of public input into park planning and how this has changed over time.

Lesson Implementation

Minds on

Explain to students that the Ontario Parks system is more than 125 years old. Allow time for students to briefly explore the Giant Floor Map and, while they are exploring, ask students to think of how the map of Ontario has changed in the past 125 years. How has a growing population changed the map? What is different? How might the labels on the map have changed? Brainstorm as a class, and encourage students to highlight things on the Giant Floor Map as they are sharing their ideas.

Next, divide the class into eight groups. Assign each group one of the First 8 Parks cards, have them find each park on the map, and have them examine their park card to answer the following questions: When was the park created? How was it created?

Explain that until 1954, only these eight parks were part of Ontario's provincial park system. What do students notice about the location of these eight parks? Discuss similarities and differences in how the first eight parks were created.

Action

Now that students are familiar with the beginnings of the Ontario Parks system, explain that during the 1950s and 1960s, dramatic social and economic changes led people to use their newly acquired leisure time to visit parklands. This outdoor recreation boom saturated the few available parks with visitors and created an outdoor recreation crisis. Passenger vehicles and increasing highway networks opened Ontario to tourism, but citizens still wanted parks to be within a reasonable distance of city centres. With many beach areas not free to the general public and with an increased interest in conservation and outdoor recreation, it became clear that new parks needed to be created to satisfy the needs of the public.



3

BUILDING A PARK SYSTEM

Select a volunteer from the class and ask them to read the park names from the list on the Park Establishment List card. As the student is reading the names, have a different student locate the park name on the Giant Floor Map and sit on it. Remind students that these are not all the parks created during the 1950s and 1960s but rather a representative sample of them. Ask students the following questions: What do you notice about where these parks are located? What do you notice about the classifications of the parks? What public need do you think the creation of these parks was helping to satisfy (e.g., beaches, recreation, conservation, vicinity to a city, access by car)?

Divide students into 12 new groups. Distribute a Park Creation card to each group and allow time for students to locate the provincial park on the map and to review and discuss the information on the card. As students are reviewing the information, encourage students to consider:

- Who or what event was influential in their park's creation?
- What was the main priority for their park's establishment: protection, recreation, tourism or something else?
- Does your park's current classification reflect the reason it was established as a park?

Next, have members in each group find a student in another group and share what they learned. Repeat this two more times so that students get an understanding of the various other ways that Ontario Parks were formed. Gather students around the map's border and allow time for everyone to comment and share what they have learned.

Conclusion

Explain to students that a higher priority was placed on recreation early in the history of Ontario Parks, but today recreation is balanced with the other objectives the organization considers important to the well-being of both parks and people, such as scientific research, education and protection. This shift can be attributed back to continued population growth and the strain put onto parks as they started to become overcrowded. Environmental concerns started to become more apparent, and earlier recommendations for conservation were re-evaluated. This led to the development and implementation of the parks classification system, management plans and park zoning.

Inform students that the public has also had input into the creation of the parks system. Today, the public plays a critical role by providing comments and input into the management plans of specific parks. Have a class discussion about the role of public input into park planning and management.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

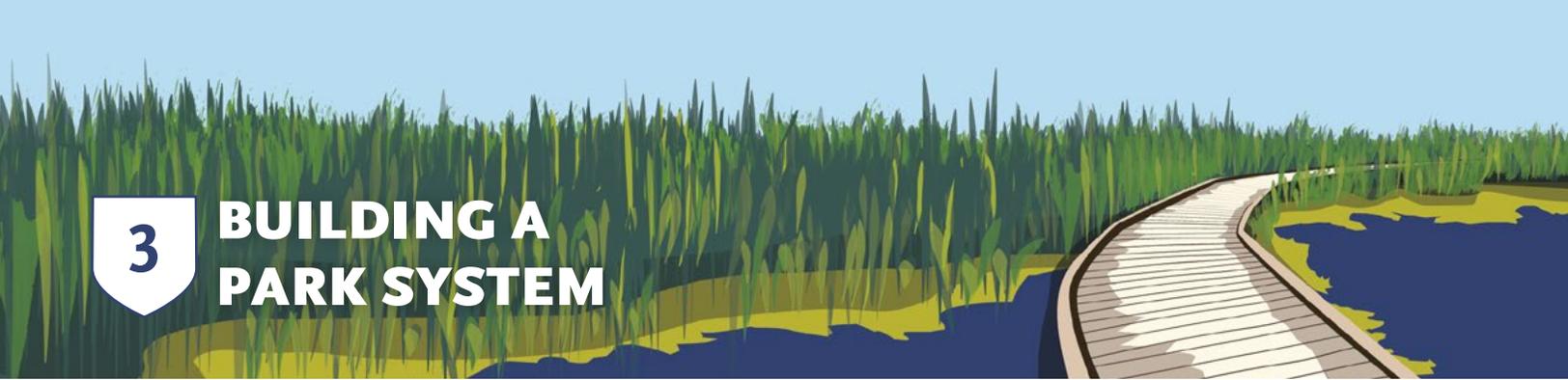
Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 4: B1, B2
- ▷ Grade 5: B1, B3
- ▷ Grade 6: A2, A3
- ▷ Grade 7: A1, B1, B3
- ▷ Grade 8: A1, A2, B3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, C2, C3
- ▷ Grade 10 (CHV2): A2, B1, C1, C2
- ▷ Grade 11 (CGD3M): A1, A2, B1, B2, C1
- ▷ Grade 12 (CGR4M): A1, A2, B1, B2, B3, C1

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.



3

BUILDING A PARK SYSTEM

Ask students:

- How has planning and management of parks changed since the creation of the first park, Algonquin Provincial Park?
- How has public input changed over time?
- Whose voices might be heard more now than earlier in the history of parks?
- Why might some voices (Indigenous Peoples or conservationists) be louder now than before?

Have students turn to a partner and ask them to briefly discuss the following:

- What are some of the things you would like to see in Ontario's parks?
- Are there things that concern you about the current Ontario Parks system?
- If you could talk to a park superintendent, what input would you give them to improve a park?
- How do you think the Ontario Parks system will change in the next 25, 50 or even 100 years? What are some challenges you foresee in the future?
- How will climate change affect this?

Extend your geographical thinking

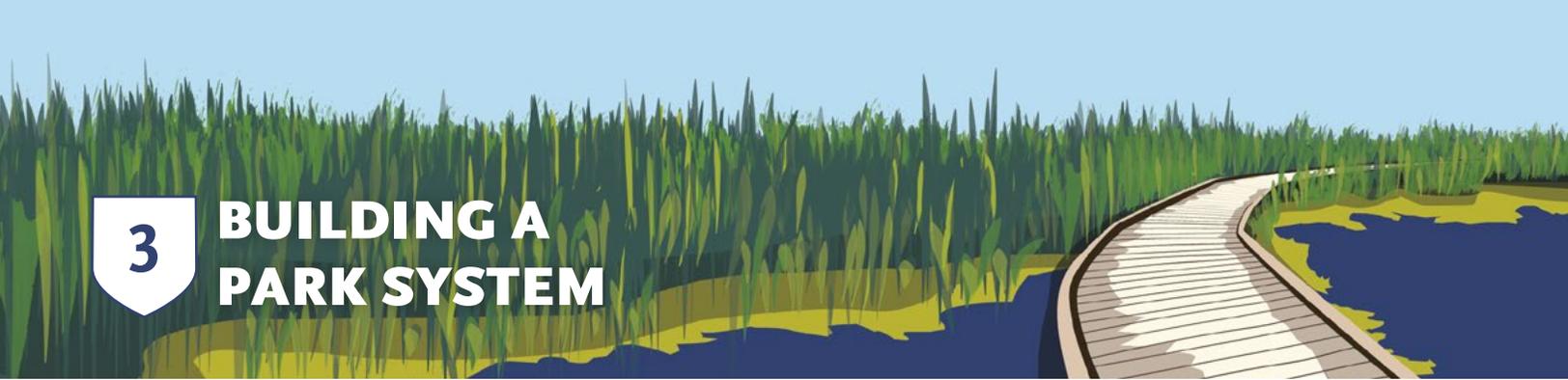
Determine the provincial park closest to your community and have students learn more about its history and its planning and management practices. Contact DiscoverySchool@Ontario.ca to connect with someone who works at the park, or contact an Indigenous group that has worked with the park (if applicable), and invite them into your class to learn more.

Modifications

For older students, handheld devices can be a great way to dive deeper into planning and management policies and practices. Management plans can be found on the Ontario Parks website for students to review.



BUILDING A PARK SYSTEM





CULTURAL HERITAGE



Overview

The objective of this lesson plan is to highlight the cultural features protected within the Ontario Parks system.

Time

75 minutes

Grade Level

3-12 (can be adapted for multiple grade levels)

Learning Goals

- ▷ Students will learn about the deep-rooted relationships that Indigenous Peoples have with the lands and waters of Ontario and how some of these heritage values are protected in parks.
- ▷ Students will learn how other cultures and economies have shaped and been shaped by Ontario's lands and waters.
- ▷ Students will identify patterns of land-use based on protected natural features.

Materials

- ▷ Cultural Heritage cards (21)
- ▷ Coloured pylons (16)
- ▷ Coloured blocks (21)
- ▷ Coloured chains (16)

Lesson Description

Minds on

Students will be introduced to Ontario's cultural heritage and learn about the deep-rooted relationships that Indigenous Peoples have with the lands and waters of Ontario.

Action

Students will explore and learn about how Ontario Parks preserves and protects Ontario's cultural heritage and they will map out specific examples.

Conclusion

Students will examine and discuss patterns of land-use based on those protected natural features.

Lesson Implementation

Minds on

Once students have had an opportunity to explore the Giant Floor Map independently, place a pylon on your community. Ask students how culture is celebrated in their community and in their school. What is there in your community or school that highlights a particular event or person who has contributed to the local history? Encourage students to think of street names, names of parks or buildings, statues, etc.

Bring students' attention back to the Giant Floor Map and ask them what a map of Ontario would look like prior to European settlement. Inform students that before Europeans discovered North America, the land already belonged to the Indigenous Peoples, who have lived on the land for thousands of years. Ask students how Indigenous People are represented on this map (Indigenous communities, reserves and treaties)?

Explain to students that today there are more than 200,000 First Nations, 50,000 Inuit and thousands of Métis living in Ontario. Ask students to each stand on a different Indigenous community on the map.

Next, highlight the treaty boundaries labelled on the map and ask students to use the coloured chains to outline some of the treaty areas surrounding their hometown. Explain that these treaties represent settlement lands that are allocated to First Nations or Inuit as part of a comprehensive land claim negotiation. Inform students that Ontario is covered by more than 40 treaties and agreements. Ask students which treaty their hometown is located in and take a moment to acknowledge the Indigenous land your school is located on. Bring attention to the First Nation reserves on the map and have students locate them. Inform students that a reserve is an area of land set aside by the federal government for First Nations people.



4

CULTURAL HERITAGE



Conclude this discussion by informing students that the Indigenous Peoples living in Canada today have a long history on the land, and their history is rooted in the forests, lakes, rivers, and landscape all across Canada.

Action

Once students are more comfortable with the variety of layers on the Giant Floor Map, bring attention to the provincial parks. Explain that Ontario's history and cultural heritage is protected and preserved in Ontario's provincial parks and that the stories of Canadian history are tied to the land we live on. This includes the culture and history of the Indigenous people living in Ontario. Ask students how they think geography and landscape influence Ontario's cultural heritage. Allow time for students to discuss in small groups and then ask for some volunteers to share their ideas with the class.

Distribute the Cultural Heritage cards to students and the coloured blocks that match the colours on the cards. Inform students that each card tells a different historical narrative connected to the local geography of a particular provincial park and each coloured block represents a different classification. There are five different types of classification: Indigenous heritage, early contact and fur trade, Great Lakes, settlement and farming, and logging and mining.

Allow time for students to review the information and images provided on the cards and to locate the park associated with their card. When students have located their park, have students place their coloured block in that place. Afterwards, ask all students to stand around the provincial border of Ontario and look at the distribution of the different classifications. Review the links between geography/ landscape and the narratives on each card. Then ask students to move blocks to other areas on the map where they think there could be more narratives from each classification (e.g. mining across the Canadian Shield, logging across northern Ontario, farming in southern, agricultural lands).

Conclusion and Consolidation

Ask students who have the same category to sit in a group together on the map to compare their notes, narratives and locations. Have students discuss what made their place special and how Ontario Parks has worked toward protecting and preserving this place. Ask students if there were any similarities between the themes and to discuss among the groups any patterns and trends or how geography plays a role.

Conclude the lesson by asking students to think of an item that would best help them tell the story about themselves. What about a place or item connected to their local community?

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: A1, A2, A3, B1
- ▷ Grade 4: A1, A2, A3, B1
- ▷ Grade 5: A1, A2, A3
- ▷ Grade 6: A1, A2, A3
- ▷ Grade 7: A1, A2
- ▷ Grade 8: A2, A3
- ▷ Grade 9 (CGC1P, CGC1D): A1, A2, B2, C3
- ▷ Grade 10 (CHC2D, CHC2P): A1, A2,
- ▷ Grade 11 (CGF3M): A1, A2, C2, C3
- ▷ Grade 12 (CGR4M): A1, A2, B1, B2, C3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





CULTURAL HERITAGE



Extend your geographical thinking

Examine ways the history of Indigenous Peoples are preserved in your local community and connect with a local Indigenous group to learn more about the traditional territory around your community. Ask for a local Indigenous Elder or knowledge keeper to go on a nature walk with students and introduce them to how local Indigenous groups use the land. If possible, arrange to visit a nearby provincial park and have them accompany you to the park to bring an Indigenous perspective to your exploration and learning.

Modifications

If hand-held devices or tablets are available, have students explore the physical landscape in the parks using Google Earth.

Prior knowledge about Indigenous Peoples can be useful for exploring the map. As a way to introduce this to younger students, bring in Indigenous stories from the library which focus on Indigenous groups living in Ontario to help students gain a greater understanding of their culture.

4

**CULTURAL
HERITAGE**



5

BIODIVERSITY IN ONTARIO

Overview

The objective of this lesson is for students to learn about how the Ontario Parks system protects the province's astounding biodiversity.

Time

75 Minutes (This activity can be divided up into multiple class periods.)

Grade Level

1-9, 11-12 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will learn about and map different types of plant and animal species found in Ontario Parks.
- ▷ Students will identify plant and animal species that are at risk and discuss what is being done to protect these species.
- ▷ Students will discuss threats to biodiversity in Ontario and what they can do to protect the biodiversity in their local area.

Materials

- ▷ Biodiversity cards (63)
- ▷ Biodiversity Range cards (9)
- ▷ iNaturalist Information card (1)
- ▷ Coloured blocks (100)
- ▷ Coloured chains (16)

Lesson Description

Minds on

Students will explore the Giant Floor Map and brainstorm all the different types of plant and animal species they can find in Ontario.

Action

Students will examine the Biodiversity Range cards and species that are categorized as at risk.

Conclusion

Students will use data and information provided from iNaturalist to map out the approximate range of select species located in Ontario.

Lesson Implementation

Minds on

Once students have had the opportunity to explore the map independently, gather them around the border to play a species naming game. Beginning with a student volunteer, have them name a plant, animal (e.g. mammal, bird, reptile, amphibian, fish, invertebrate) or fungus that they have seen in their community, or that they know live in Ontario (for younger students extend it to Canada). Next, have the student standing to the right repeat what the first student said and add their own species. Continue until everyone in the class has named a different species.

Afterwards, ask students to raise their hand if they named an animal. How many students named a plant, bug, fungus, bird, fish or amphibian? Ask students what biodiversity means and create a definition as a class. (**Biodiversity:** the variety of species that live or coexist in a location or ecosystem.) Have students locate a provincial park they have visited before and share what they saw there in terms of biodiversity (i.e., animals, plants). For students who have never visited a provincial park before, ask them to think about biodiversity in their community. Ask students why they think it is important to protect the biodiversity in these parks/communities.

Action

Explain to students that there is an incredible range of plant and animal species living in Ontario, from the far North to the largest cities, and everywhere in between. Some species can be found in all parts of the province and others can be found only in certain places. All species, including humans, depend on one another in order to survive. Ask students how humans depend on biodiversity. Examples can include: using plants and animals for food sources; biodiversity helping to regulate climate; trees purifying air; natural spaces for sports and outdoor activities; as well as medicine and more.



5

BIODIVERSITY IN ONTARIO



Inform students that they are going to learn more about biodiversity in Ontario. Using the Biodiversity cards provided, distribute a different card to each student. Allow time for students to examine their card and review the information provided.

Next, group students into the following categories, based on the type of Biodiversity card they have:

- Birds
- Mammals
- Amphibians
- Reptiles
- Fish
- Insects/Spiders
- Trees
- Plants
- Lichens/Moss
- Fungus

Allow time for students to sit in their groups and share their species with each other. Encourage students to share information about their species and compare and contrast it with other species in the same category.

Ask students to look at their cards and to raise their hand if they have a star on their card. Inform students that all cards with a star show species that are at risk. This means that their particular species in danger of disappearing from Ontario. What percentage of students have their hand raised? Next, ask the class what can be done to protect these species. What can Ontario Parks do? Have students holding a Biodiversity card with a species at risk to share what Ontario Parks is doing to protect this species.

Ask students what they can do to protect species located nearby and have them share their ideas. Inform students that actions are being taken to protect species at risk in Ontario Parks by encouraging park visitors to:

- **Keep wildlife wild**—don't touch or move plants or animals.
- **Leave no trace**—if you have trash, bring it home with you.
- **Participate in citizen science programs** for educating the public.
- **Stay on the path** and don't go off the trail.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Interrelationships
- ▷ Spatial significance

Inquiry Process

- ▷ Gather and organize
- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 1: B1, B2, B3
- ▷ Grade 2: B2, B3
- ▷ Grade 3: B1, B2, B3
- ▷ Grade 4: B1, B2, B3
- ▷ Grade 5: B1, B2
- ▷ Grade 6: B1, B2
- ▷ Grade 7: A1, A2, B1, B2
- ▷ Grade 8: A2, A3, B1, B2
- ▷ Grade 9 (CGC1D, CGC1P):
A1, A2, B1, B2, B3, C1
- ▷ Grade 11 (CGF3M):
B2, B3, C1, C2
- ▷ Grade 12 (CGR4E):
B1, B2, B3, C1

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.



5

BIODIVERSITY IN ONTARIO

Conclusion and Consolidation

Gather up the Biodiversity cards but ask students to stay in their groups. Explain to students that now that they know more about biodiversity and species at risk in Ontario the next activity will be to explore the habitat ranges of some of these species. Distribute a Biodiversity Range card and explain that students will work together in their groups to map out the range of one species in their category based on the data and information provided. Inform students that the data and information provided on the cards are from a website/app called iNaturalist. iNaturalist is a useful tool that allows people, anywhere in the world, to upload photos of their nature sightings to a database. (Note: See the iNaturalist Information card for more information on this program and how to use it with your students).

Using the data and information on the Biodiversity Range cards, have students select one species provided on their card and locate the provincial parks listed beneath that species. Explain to students that the parks identified on the cards represent the approximate outer limits of iNaturalist observations in parks for that species. Tell students to keep in mind that the species may be found outside these outer-limit parks (these are just the observations reported) and that this broader area represents the species' range. Next, ask students to look at the number under their selected species. Explain that this number represents the total number of observations made by people using iNaturalist within Ontario Parks (the second number represents the total number of observations within the whole province).

Have all the groups place their blocks on each provincial park that their species has been observed in. If possible, ask students to use the same colour of blocks for their species. Then, have students use the chains to carefully connect their blocks to show the approximate range of the species in Ontario. Next, have everyone sit around the border of Ontario. One group at a time, have students share with the class which category they have and which species they chose to map. Ask the class: Is this a large range or a small range? Have the group remove the chains and their blocks. Repeat for the next group until all the groups have gone and there are no blocks left on the map. When all groups have finished, ask students to discuss any patterns, trends, or connections between the species that they noticed. Which species have large ranges? Which species have small ranges? Why are some sighting numbers larger than others? Which species are located near your community? Do you think looking only at observations submitted within Ontario Parks is an accurate representation of a species' range? Why or why not?





BIODIVERSITY IN ONTARIO



Extend your geographical thinking

Education is an important step in protecting biodiversity. Work together with students to identify and map biodiversity in your school yard and community. Have students use iNaturalist to map and collect data. Ask them to consider if their school yard or community has a high range of biodiversity or not, and what they can do to improve that biodiversity.

Once students are familiar with using iNaturalist, plan a class trip to your local provincial park and continue to use the app and website to collect data and contribute to Ontario Parks' project database. Ontario Parks has their own page – encourage students to become a member of that project.

Modifications

For younger students, when using the Biodiversity Range cards to explore the Giant Floor Map, divide the cards card up by category, such as mammals, birds, and plants. Teachers can also use this opportunity to discuss with students the types of animals that live in Canada and which ones do not (e.g., lions, elephants, kangaroos).

For older students, use the iNaturalist website to further explore and work with biodiversity data. Students can use this data to create their own species range maps and graphs, or to learn more about a specific species.

6

ECOLOGY OF ONTARIO



Overview

In this activity, students will learn about ecosystems, the diversity of ecosystems in Ontario and how Ontario Parks works to protect this ecosystem biodiversity.

Time

75 minutes (can be adapted for multiple class periods)

Grade Level

4-9, 11 (Can be adapted for primary level students)

Learning Goals

- ▷ Students will learn that ecosystems exist at different scales, such as ecozones and ecoregions, and that abiotic factors, such as geology and climate, affect what can live in each type of ecosystem.
- ▷ Students will use the Giant Floor Map to map out Ontario's ecoregions and determine which provincial parks are located in each region.
- ▷ Students will learn why some ecoregions of Ontario may be better represented in the Ontario Parks system.

Materials

- ▷ Coloured chains (16)
- ▷ Coloured pylons (20)
- ▷ Ecozone Map card (3)
- ▷ Ecoregion cards (14)

Lesson Description

Minds on

Students will map out all ecoregions in Ontario and learn the difference between an ecozone and an ecoregion.

Action

Students will propose the development of a new Ontario Park.

Conclusion

Students will discuss their proposal for the development of a new park.

Lesson Implementation

Minds on

Once students have had an opportunity to explore the Giant Floor Map, have them stand along the border of Ontario to map the outline of the province. Ask students if they have heard of the terms "ecozone" or "ecoregion" before. Explain that ecozones and ecoregions are types of ecosystem classifications (i.e. categories). Discuss with the class what makes an ecosystem in one area (Northern Ontario) different from another area (Southern Ontario). Explain that geology and what lies on top of bedrock changes what can grow on the surface. Define the following ecosystem categories for the class:

- **Ecozone** is a large area of land (and water) that has distinct flora, fauna, and biodiversity. Ecozones are usually determined based on the geology of the region.
- **Ecoregion** is an area of land (or water) smaller than an ecozone. Climate plays a large part in defining an ecoregion, which includes temperature, precipitation and humidity. Only plants and animals that can live in those conditions are part of that ecoregion.

Inform students that Ontario is divided into three ecozones, then further divided into 14 ecoregions. An important priority for the Ontario Parks system is to represent the diversity of Ontario's natural and cultural heritage. To do this, Ontario Parks works to make sure that every one of Ontario's unique ecosystems is protected.

As a class, and using the coloured chains, map out Ontario's three ecozones using the Ecozone Map card. Once students have mapped them, review the information on the back about the name of each ecozone and their characteristics. Next, bring attention to the 14 ecoregions labelled on the Ecozone Map card and use the coloured pylons to indicate the approximate area of the 14 ecoregions. Once completed, divide students into pairs or 14 groups and give each group a different ecoregion card. Have students locate their ecoregion and review the information on the card.



6

ECOLOGY OF ONTARIO



Have each group answer a series of questions: How many parks are in your ecoregion? What is the largest park? How much of the ecoregion is forested? Urban? Agricultural? Then have each group present to the rest of the class. At the end, ask the class: Which ecoregions have the most provincial parks? The most total area covered by parks? The least? Explain to students that each provincial park is connected to a system and is unique in its own way.

Action

While the students are still in their groups, explain that Ontario Parks has “wilderness” and “natural environment” class parks, which protect large pieces of Ontario’s larger ecosystems, as well as “waterway” class parks to help link and connect the protected areas. Wilderness class parks are very large areas, at least as big as Killarney Provincial Park. Using the map’s legend, have students identify a park from each of these classes in their ecoregion.

Inform students that Ontario Parks has set targets with respect to the wilderness, natural environment, and waterway class systems, such as:

- Each ecoregion will have at least one wilderness class park.
- Each ecoregion will have a number of natural environment and waterway class parks to protect different areas in the ecoregion.

Have students in each ecoregion group determine whether there is at least one wilderness class park and whether there are examples of waterway class parks and natural environment class parks in different areas of their ecoregion. Discuss and compare answers as a class. Is there a greater number of large parks (i.e. wilderness class parks) in southern Ontario or northern/central Ontario? Why? What factors may impact where Ontario Parks can and cannot create a park? Where would it be easiest to create a new park? Why? If you were trying to protect a new park that more Ontarians could easily access to enjoy, would that change your answer? Remember that Ontario Parks is always trying to balance the need to protect areas with the need to provide areas for people to enjoy nature.

Now that students are familiar with Ontario’s ecoregions and have discussed some of the factors impacting where Ontario Parks could create new parks, it’s time to have the students create their own park. Split the class into three groups. Give each group two ecoregion cards (one northern, one southern). Have each group explain which ecoregion they would like to create a new park in. Have them explain which class of park they would choose and where they would locate the park. What would they call the park and what types of activities would they allow?

Conclusion and Consolidation

Once students have created their provincial park, have them stand back along the perimeter of Ontario. Ask for a volunteer from each group to share their park and use the Giant Floor Map to highlight where it is located and the major characteristics of the ecosystem it is in. Once all groups have presented, ask students to brainstorm potential threats to their park’s ecosystem and to share what they feel to be the top threat.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships
- ▷ Geographic perspective

Inquiry Process

- ▷ Formulate questions
- ▷ Gather and organize
- ▷ Interpret and analyze

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 4: B2, B3
- ▷ Grade 5: B2, B3
- ▷ Grade 6: B3
- ▷ Grade 7: A1, A2, A3, B2
- ▷ Grade 8: A2, A3, B1, B2, B3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, B2, B3
- ▷ Grade 11 (CGF3M): A1, A2, B1, B2, B3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





6

ECOLOGY OF ONTARIO

Extend your geographical thinking

Encourage students to continue their learning about ecosystems and how things are interconnected by having each student select a different provincial park and research its biodiversity. Have each student create a food web using the species located in their park to illustrate the interconnectedness of the park's ecosystem. To find out more about unique and special ecosystems, habitats and communities that are protected in Ontario Parks, encourage students to link to ontarioparks.com/parksblog/?s=forever+protected. This is a growing series that speaks to the unique ecosystems of specific parks and explains why they belong in the park system.

Modifications

For younger students, focus on the ecozones and ask students which types of animals and plants may live there. Discuss with students how animals adapt to the seasons and their environments.

For older students, have them research and map the 71 ecoregions in Ontario and have individual students create Ecoregion Characteristics cards to be used on the map. Compare this to the characteristic of the ecozones and ecoregions.

6

ECOLOGY OF ONTARIO



7 INVASIVE SPECIES



Overview

The objective of this activity is for students to learn about invasive species found in Ontario Parks.

Time

75 Minutes (this activity can be divided up into multiple class periods)

Grade Level

3-9, 11-12 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will learn about invasive species and map the location of where they can be found in Ontario.
- ▷ Students will map the spread of recent invasive species over time.
- ▷ Students will share ideas on how to manage, monitor and protect the environment from invasive species.

Materials

- ▷ Invasive Species cards (14)
- ▷ Coloured pylons (20)

Lesson Description

Minds on

Students will learn about invasive species and why they are harmful to our environment.

Action

Students will learn about the types of invasive species that exist in Ontario and map the spread of them on the Giant Floor Map over time.

Conclusion

Students will discuss the regulations already in place for monitoring and managing invasive species in Ontario Parks and brainstorm ways students can play a role in helping out.

Lesson Implementation

Minds on

Once students have had time to independently explore the Giant Floor Map, have them stand on the map's border. Randomly select five students and ask them to step off the map. For the rest of the class, ask students to each select a different provincial park and stand there. Inform students standing on the map that they each represent an ash tree.

Invite students standing off the map to step back onto the map. Inform these students that they are beetles, representing a species known as the Emerald Ash Borer, and that humans accidentally brought them over to Ontario from Asia. Ask students representing beetles to stand next to one of the students standing on the map. For those students representing ash trees who are standing next to a beetle, inform them that the beetle liked the ash trees so much that they decided to live in them. Unfortunately, because the ash trees weren't used to this new species, they weren't able to survive. Ask these students to sit down on the map to represent the ash trees that didn't survive.

Next, select three beetles and send them to three other ash trees in provincial parks farther away. Inform them that campers decided to use dead ash tree lumber for firewood in another park. For the remaining two beetles, ask them to stand next to whichever living ash tree is closest to them. Inform students that the Emerald Ash Borer can't travel very far in one year, but with ash trees being cut down and transported for lumber and firewood, the spread of the beetle has been moving faster than expected.

Ask all students to sit on the Giant Floor Map and inform them that the Emerald Ash Borer is known as an invasive species in Ontario. Ask students what they think is the definition of an invasive species. Create a definition as a class. Ask students why invasive species are so harmful and how these species may impact the environment, economy, and even human health.



7 INVASIVE SPECIES



Action

Inform students that there are dozens of invasive species living in Ontario's rivers, lakes, forests, parks, and even in our backyards. When an invasive species finds an environment it likes, not only does it threaten the environment but it is almost impossible to remove.

Divide students into small groups or pairs and distribute one Invasive Species card to each group. Allow time for students to learn more about the species and examine the images and information on the card. Have students use the coloured pylons or chains to estimate where their invasive species can be found and to locate it on the map. Next, ask students to stand around the map's border and ask them about what patterns and trends they notice about where the species are located. Which areas of Ontario have more invasive species? Why do they think that is?

Ask for some student volunteers to share more information about their species with the rest of the class and encourage students to use the map to outline the full range of their species or ask students to help map the perimeters by standing in select locations.

Conclusion and Consolidation

Once several groups have presented and shared their invasive species with the rest of class, ask them what could happen if nothing is done to stop the spread of these species. What is Ontario Parks doing? Ask students to predict how the spread of their species may look in the next 25 or 50 years.

Next, inform students that things can be done to stop the threat and spread of invasive species. Ask students to think of some ideas and share them with the class. Possible ideas include:

- Plant only native plants.
- Learn how to identify invasive species and educate others.
- Make sure you clean your boating and hiking equipment thoroughly.
- Don't release aquarium fish, plants, or exotic animals into the wild.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

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

Inquiry Process

- ▷ Formulate questions
- ▷ Interpret and analyze

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: B1, B2, B3
- ▷ Grade 4: B1, B2, B3
- ▷ Grade 5: B2, B3
- ▷ Grade 6: B1, B2, B3
- ▷ Grade 7: A1, A2, A3,
- ▷ Grade 8: A2, A3
- ▷ Grade 9 (CGC1D, CGC1P):
A1, A2, B1, B2, B3
- ▷ Grade 11 (CGD3M):
A1, A2, B1, B2, B3, C1
- ▷ Grade 11 (CGG3O):
A1, A2, C1, C2, C3
- ▷ Grade 12 (CGR4M):
A1, A2, B1, B2, E1, E3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





INVASIVE SPECIES



Extend your geographical thinking

Have students download the following two apps:

1. Early Detection and Distribution Mapping System (EDDMapS)
2. iNaturalist

The first app helps in identifying and reporting invasive species. Use this app to learn more about the range of some of Ontario's invasive species. The second app helps in identifying any species you might observe. Use these apps to learn about and raise awareness of which plants and animals are native to the area and which are not.

Arrange a field trip to your local provincial park and plan a walking tour to test these apps out and identify native plants and species first-hand. Alternatively, walk around your schoolyard and determine what native or invasive species might be living there.

Modifications

For younger students, select one or two invasive species to discuss and learn about together and focus on what happens when a new species is introduced to a foreign environment.

For older students, have students research and learn more about local initiatives to stop invasive species and what Ontario Parks is doing to address invasive species in their parks. Encourage students to participate in or start an initiative of their own. If possible, have students find an invasive species, track its spread, and connect with a nearby park to help raise awareness.



INVASIVE SPECIES





ECOLOGICAL CONNECTIVITY



Overview

The objective of this activity is for students to learn about the importance of connectivity between habitats or areas that species rely on for survival. Ontario Parks protect some habitats and areas that are critical for the survival of certain species, but that isn't always enough.

Time

75 Minutes (this activity can be divided up into multiple class periods)

Grade Level

5-9, 11-12 (This activity can be adapted for younger grades.)

Learning Goals

- ▷ Students will review case studies outlining how Ontario Parks addresses ecological connectivity.
- ▷ Students will discuss and brainstorm how they can work together to protect animal species.

Materials

- ▷ Connectivity cards (7)

Lesson Description

Minds on

Students will be introduced to the concept of connectivity, discuss multiple definitions, and brainstorm all the ways in which humans, animals and the environment are connected.

Action

Students will be introduced to the idea of ecological connectivity and will examine case studies where animal species and habitats are being protected in Ontario Parks.

Conclusion

Students will discuss what more can be done to protect these species to ensure they stay connected to their habitats.

Lesson Implementation

Minds on

Ask students to stand on a town or city on the Giant Floor Map and ask them what kinds of connections people may have to these towns. How do people stay connected to their friends, families, and pets? How do these connections work in nature? Inform students that the concept of connectivity can be complex but that the basic definition of connectivity is: the state of being connected or interconnected with something. For this activity, students will learn more about how animals are connected to their habitats and how human activities and infrastructure can challenge or threaten an animal's connection to the land.

On the Giant Floor Map, ask students to locate and stand on a place outside of their home community that they have visited before. Ask students how they got there: Did they drive there? Take the train? Fly? Did they feel safe and welcome when they visited this place? How did they know they were safe? Next, ask students to imagine they are an animal who visited this town. What factors would ensure this animal felt safe and protected?

Explain to students that the movement of animals from one place to another is very different compared to humans. While humans move from one place to another to visit family, friends, or to explore as a tourist, many animals move or migrate to look for food, to find a safer environment, or as part of their annual breeding migration. It is important, therefore, for these animals to feel safe and protected when they visit an area.

Ask students to locate a provincial park that has a highway going through it or a city nearby. Ask students to consider the challenges animals may encounter when attempting to cross a human-modified landscape in order to reach their habitat.





ECOLOGICAL CONNECTIVITY



Action

Inform students that Ontario Parks has implemented multiple programs to make sure certain species are protected and stay connected to their habitat. Parks provide core areas or “islands” of protected habitat that often extend farther than the park boundaries. Even though protecting these areas is important, species also require protection of the greater ecosystem for long-term survival.

Divide students into small groups and give each group a different Connectivity card. Allow time for students to review the information on the cards and to locate the places mentioned on the cards. Finally, ask students to consider the following questions:

- What is the ecological connectivity issue/problem?
- What is being done to address it?
- Is this a successful approach?

Conclusion and Consolidation

When each group is ready, ask students to select a spokesperson to present to the rest of class. For the remaining students in the group, have the presenter use the group members to highlight on the Giant Floor Map places where this issue exists.

When all groups have presented, ask students to sit on the Giant Floor Map and have a class discussion connecting everything they learned. Inform students that although Ontario Parks is addressing many issues, there is still more that needs to be done. Ask students for their thoughts on which case studies were successful. What challenges would larger parks have compared to smaller parks? What about parks closer to populated areas versus more remote parks? If an animal’s range exceeds the park’s boundaries, what can be done outside of the park’s borders? How can the Ontario Parks system address these issues across the province and how can students help?

Extend your geographical thinking

Backyard habitats are important. Have students look into how they are providing a safe place in their community (school and/or home) for animals to live in or travel through. Ask students to brainstorm what can be done to expand on their efforts and to raise awareness in the school and community. Have students design and deliver their own awareness project. For older students, have them look at two nearby parks and brainstorm ways that students could help to increase the connectivity for one or more species.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Interrelationships
- ▷ Geographic perspective
- ▷ Spatial significance

Inquiry Process

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

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 5: B2, B3
- ▷ Grade 6: B2
- ▷ Grade 7: A2
- ▷ Grade 8: A2, A3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1
- ▷ Grade 11 (CGD3M): A1, A2, B2
- ▷ Grade 12 (CGR4M): A1, A2, B1, B2

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





ECOLOGICAL CONNECTIVITY



Modifications

For younger students, have students trace out the roads and waterways to learn more about different types of connections and to understand human impact on the environment.

For older students, have students research local species and learn about the problems that exist in their local area or nearby provincial park. Create a research project that outlines the species and the nature of the problem and have students come up with a possible solution and implementation plan. Contact DiscoverySchool@Ontario.ca to arrange a field trip to your local provincial park or invite an employee from the park to visit your class so they can learn more about this plan.



ECOLOGICAL CONNECTIVITY



9

WATERSHEDS, WATERWAYS AND WETLANDS



Overview

In this lesson, students will explore the important role water plays in our everyday lives and understand how water is not only a vital resource needed for survival but also a transportation route and habitat for biodiversity.

Time

75 mins (This lesson can be divided up into three separate water activities.)

Grade Level

3 – 9 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will identify Ontario's major watersheds.
- ▷ Students will discuss water as a habitat, transportation route, and vital resource.
- ▷ Students will plan and map a canoe route in Ontario.

Materials

- ▷ Coloured chains (16)
- ▷ Coloured pylons (20)
- ▷ Watershed Map card (1)
- ▷ Historic Route card (1)

Lesson Description

Minds on

Students will learn about and map the major watersheds located in Ontario.

Action

Students will map out a historic fur trade route used hundreds of years ago in Ontario and plan their own canoe adventure routes.

Conclusion

Students will learn about the importance of wetlands and discuss threats to southern Ontario's wetlands.

Lesson Implementation

Minds on

Once students have explored the Giant Floor Map independently, ask them to stand anywhere within the borders of Ontario and place their hand on the map. Ask students what they see located around their hand and have them identify all the different types of water bodies (lakes, rivers, ponds, bays). Next, ask students to stand up if they are NOT touching water on the map with their hand. How many students stand up? Explain that Ontario is a water-rich province and is home to hundreds of lakes and rivers. It is also connected to some of Canada's largest water bodies and systems, like the St. Lawrence River, the Great Lakes, Hudson Bay, and James Bay. Which major bodies of water are located near you?

Water is a vital resource, a mode of transportation, and also a habitat. Without water, we could not survive. Ask students how water impacts their daily lives. Answers may include: drinking, washing, cleaning. There is no question that water is a vital resource which helps humans and all plant and animal species survive.

Ask students what happens to all the water from the snow that melts in the spring or about where all the rainwater goes when it rains. Explain to students that no matter where you are standing, you are on a watershed (or drainage basin) — every place on Earth is connected to one. A watershed is defined as a place where all surface water drains into the same place. This includes all rivers, lakes, creeks, and ponds which end up flowing into the same place. In Canada, these watersheds drain into an ocean. In Canada, there are five major watersheds, Ontario has two. Using the coloured chains and the Watershed Map card provided, work as a class to outline Ontario's two main watersheds. Afterwards, ask students to determine the direction of flow of the watersheds. (Hint: Topography and land elevation help determine the direction of the flow of water.)



9

WATERSHEDS, WATERWAYS AND WETLANDS



Action

Clean everything off the Giant Floor Map and have students stand along Ontario's borders. Inform students that water is also important to us because it is one of the earliest forms of transportation. For thousands of years, prior to European contact, Indigenous Peoples used the waterways as their main form of transportation. When the first Europeans made contact, they too used Canada's waterways to explore and navigate. To this day, these routes are still used and play a significant cultural and economic role in Canada.

Using the Historic Route card provided, read the text on the card that describes a historical fur trade route. As you are reading, have students use the coloured pylons to highlight the various stops along the way. When finished, connect the pylons with a coloured chain. Ask students how many provincial parks this historical route goes through. Why is retaining the knowledge of these historic routes important? Discuss as a class.

Ask students to select two places they would like to visit in Ontario and to trace out a canoe route using mainly lakes, rivers and waterways. Allow time for students to trace their route using their finger or a coloured chain. When students are ready, ask for a volunteer to share their route with the class. Discussion questions can include:

- Approximately how long is the route in kilometres?
- Are there places where you would have to portage (carry the canoe across land)?
- What would it be like to navigate this route without a map?
- What might you see along the way?
- What challenges would you face?

Conclusion and Consolidation

Now that students have discussed water as a vital resource and a transportation route, bring attention to how water is also a habitat. Encourage students to share their ideas. What kinds of animals have students seen living in or around water? Encourage them to think of birds, fish, insects, and mammals. Finally, ask students about the role Ontario Parks plays in protecting these habitats and water systems. Remind students that Ontario Parks both protects these habitats and also offers experiences to visitors to explore nature, by protecting beaches, maintaining canoeing routes, and connecting waterway parks to conservation reserves. Using the coloured pylons, have students place a pylon on the following provincial parks: Algonquin, Lady Evelyn-Smoothwater, Lake Superior, Quetico, Wabakimi, Woodland Caribou, and Polar Bear. Explain that these parks are known for housing headwaters or river sources (the place where a river begins).

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Interrelationships
- ▷ Spatial Significance

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: A1, A2, A3, B1
- ▷ Grade 4: A1,
- ▷ Grade 5: A1, A2, A3,
- ▷ Grade 6: A1, A2, A3
- ▷ Grade 7: A1, B2
- ▷ Grade 8: A1, A2,
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, C1

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.



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WATERSHEDS, WATERWAYS AND WETLANDS



Conclude your water lesson with a discussion about wetlands. Ask students: What is a wetland? What does a wetland look like? Why are they an important ecosystem? Explain that wetlands are incredibly valuable places because of their biodiversity. They help prevent flood damage, improve water quality, and provide a home to thousands of species. In Ontario, there are more than 35 million hectares of wetlands, many of them located in northern Ontario. In southern Ontario, however, wetlands are disappearing. What may be causing this? (Answers: invasive species, pollution, climate change, urban development, industrial or agricultural use). Conclude the lesson with a discussion on how your class can raise awareness and help protect Ontario's wetlands.

Extend your geographical thinking

Plan a visit to a wetland near you and explore all of the biodiversity! Create a poster highlighting why wetlands are important and post it online or around your school.

Encourage students to look further into planning their own canoe trip. Have students plan a route, write up a packing list, and estimate the approximate distance they will travel each day. Encourage students to research proper water safety equipment.

Students can also continue to learn about waterways by examining the plastic pollution that has been building up there. Encourage students to participate in the [Great Canadian Shoreline Cleanup](#).

Modifications

For younger students, when learning about how water provides habitats for many animal species, use the animals from the Biodiversity cards to assist students in brainstorming.

For older students, when they are learning about watersheds, have them use their handheld devices to explore issues that exist within the watersheds. Encourage students to explore the [watershed report cards](#) developed by Conservation Ontario at [watershedcheckup.ca](#).



WATERSHEDS, WATERWAYS AND WETLANDS





Overview

The objective of this lesson is for students to learn about Ontario's geological heritage as it pertains to Ontario Parks.

Time

75 minutes

Grade Level

3- 4, 7-9, 11 (Can be adapted for all grade levels.)

Learning Goals

- ▷ Students will learn about the unique geology featured in Ontario's provincial parks.
- ▷ Students will learn about how some geological features were formed, and the geological eras that sparked their formation.

Materials

- ▷ Geology cards (21)
- ▷ Physiographic Map of Canada card (5)
- ▷ Teacher Geological Time card (1)
- ▷ Coloured chains (16)

Lesson Description

Minds on

Students will learn about different geological time periods and map out the Canadian Shield.

Action

Students will explore select geological formations found within Ontario's parks and learn about how they were formed.

Conclusion

Students will discuss how geological formations impact cultural heritage.

Lesson Implementation

Minds on

A significant portion of Canada sits on the Laurentia craton (ancient rock that is part of the continental crust), which is known to most people as the Canadian Shield. All of North America was once part of the supercontinent Pangea, more than 250 million years ago. Explain to students that a supercontinent is a landmass that is made up of most (or all) of the land on Earth and is formed when tectonic plates collide. The plate tectonics theory states that the Earth's rigid outer rock layer (called the lithosphere) sits on top of a molten layer (called the asthenosphere) that shifts around, causing changes to the shape of the continents and landforms over millions of years. In a few hundred million years, Canada and all of North America might once again become part of a supercontinent.

Geology, the study of rocks and the Earth's physical structure, is important because it helps us understand our planet's history and the processes that shaped, and continue to shape, the Earth. It is through studying rocks that we have learned that the Earth is more than 4.5 billion years old and that plate tectonics have shaped the current physical form of the planet supporting the development of life. Explain to students that Canada's landmass can be divided based on its geological history. Use the Teacher Geological Time card to introduce some of these geological time periods and to give students a sense of the duration of these periods. Bring students' attention to how relatively recent human life is when compared to the different geological time periods. If possible, display the timeline on a wall or photocopy it for students to refer to for this lesson and afterwards.

Inform students that Ontario has incredible geological diversity and that there are thousands of amazing rock formations located throughout the province, which act as a window to the past, even before humans. Using the Physiographic Map of Canada card and the coloured chains provided, work as a class to outline the Canadian Shield. When complete, have students stand around the border of the Canadian shield and inform the class that the Canadian Shield is made up of rocks dating back hundreds of millions of years. Ask students to locate some provincial parks found within the Canadian Shield. If any student has visited any of these parks, ask them to share their experience and what kind of landform features they found.





Action

Explain to students that they will be learning about specific geological formations located within Ontario's parks. Distribute the Geology cards to each student or group of students and allow time for them to learn about the geological formation featured on the card. Have them locate their geological formation on the Giant Floor Map.

When all geological formations have been located, ask students to look at the geological time period indicated on their card and to organize themselves based on their time period. Allow time for each group to compare their formations and where these formations were formed. Are there any similarities between the formations?

Next, ask for class volunteers to share the story of their rock formation, where it is located, and in which geological time period it was formed. If groups discovered similarities, encourage students to share their observations.

Conclusion and Consolidation

Explain to students that these geological formations are just some of the many formations that make up the unique geology of Ontario. Have students clear all the cards and chains off the map and sit along the border of Ontario. Ask students how Ontario's geology influences our cultural heritage. For example: How has the geology of Ontario influenced our settlement patterns, industries (e.g., mining), farming or agricultural settlement? Locate Ontario's five largest cities: Toronto, Ottawa, Mississauga, Brampton, Hamilton. Where are they located? What about Ontario's mining towns, like Sudbury, Timmins, Thunder Bay, and Kenora?

Extend your geographical thinking

Explore how these geological formations influence the cultural heritage of the Indigenous Peoples living in your local area. Allow time for students to research about local Indigenous groups and organizations and connect with them to learn about how they use the land and its geological formations. Contact DiscoverySchool@Ontario.ca to arrange a field trip to a nearby provincial park (or visit a nearby greenspace) or green space and have students experience the geology of that space first-hand. Encourage students to journal or draw what they see and write down any questions they have about the formations.

Modifications

For younger grades, a discussion on the different geological time periods may be difficult for some students to grasp, so focus on the different geological features. Have students explore the features together as a class.

For older grades, students can dive in deeper and research the different geological eras to learn more about what was formed when. Have students expand their geological learning to the rest of Canada and locate unique geological formations across the country.

Using handheld devices and an application like Google Earth would be a great way for students to explore the geology of Ontario's provincial parks and their select geological formation while on the Giant Floor Map.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships

Inquiry Process

- ▷ Formulate questions
- ▷ Gather and organize
- ▷ Interpret and analyze

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: B2, B3
- ▷ Grade 4: B3
- ▷ Grade 7: A2, A3, B1
- ▷ Grade 8: A2
- ▷ Grade 9 (GCG1D, CGC1P): B1, B2, B3
- ▷ Grade 11 (CGF3M): A1, A2, B3, C2, C3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.



SCIENCE AND RESEARCH



Overview

In this lesson, students will learn about how science and research is conducted in Ontario Parks and how visitors can get involved in citizen science programs.

Time

75 minutes

Grade Level

7-12 (Can be adapted for all grade levels.)

Learning Goals

- ▷ Students will discuss the different fields of scientific research happening in Ontario Parks (e.g., earth science, life science, cultural studies, social science, environmental studies), and why a knowledge of each of these fields is important to ensure sustainability within the park.
- ▷ Students will learn about and locate examples of academic research projects occurring in select Ontario Parks.
- ▷ Students will propose a citizen science project of their own for a provincial park close to their local community.

Materials

- ▷ Ontario Parks Research cards (12)
- ▷ Citizen Science Project Proposal card (1) (to be photocopied for each student)
- ▷ Handheld devices (for research) (not included)

Lesson Description

Minds on

Students will discuss how science and geography are connected and share ways in which science is used to help understand one's local environment.

Action

Students will examine research projects that take place in Ontario Parks.

Conclusion

Students will propose a citizen science project of their own for a nearby park.

Lesson Implementation

Minds on

Once students have explored the Giant Floor Map independently, have them stand along the map's border. Ask students how science can be used to better understand the environment. Have students brainstorm with a partner. While students are brainstorming, ask them to consider factors such as climate and location, as well as what type of planning would be required to gather this information.

Once students have shared their ideas with the class, bring attention to the provincial parks labelled on the map and explain that science is a main focus for Ontario Parks. Ask each student to stand on a different provincial park. Ask them to examine the park's size and location, and to consider things that would be located both inside and outside the park. Next, explain that Ontario Parks conducts a variety of scientific research projects in diverse fields of study, such as earth science, life science, cultural studies, geology, and environmental science. Ask students to think about why Ontario Parks conducts research in their parks. Why is it important?

Action

Inform students that they are going to learn about and locate examples of academic research projects occurring in a various provincial parks. Have students gather into small groups and randomly distribute a Ontario Parks Research to each group. Allow time for each group to review the information on the card and locate where this research is taking place.





SCIENCE AND RESEARCH



As students are examining the information on their Ontario Parks Research cards, have them consider the following questions:

- **What** is the research question? (i.e.: What are the scientists trying to find out?)
- **How** are scientists collecting information? (i.e.: What type of data are they looking for?)
- **Why** was this location selected for research?
- **What** equipment was needed to conduct the study?
- **If provided**, what were the findings?

Once students have had time to discuss in their groups, ask each group to appoint a speaker to share what they have learned with the rest of the class. Once all groups have shared, have students consider the questions mentioned above and discuss the importance of doing these research projects in protected areas, such as those within Ontario Parks. What kind of planning needs to be done before beginning a research project? Why is data collection important for scientists? When you visit a park, what kind of data could you collect that could be useful for Ontario Parks' researchers?

Conclusion and Consolidation

Introduce “citizen science” to your students. Inform students that citizen science is when the general public participates in scientific research, helping scientists gather information. Anyone can be a citizen scientist or contribute to a citizen science program. Ask students to share some ideas of scientific questions they have that are connected to their local community.

Next, distribute a Citizen Science Project Proposal card (photocopied before class) to each group. Have students fill out some of the basic information for this card while on the Giant Floor Map. Ask students to choose a provincial park where they will conduct their research, choose a research question (i.e., something they want to learn more about, usually “why” or “how” something happens), and select a scientific approach (i.e., how will they gather data to answer their question). Encourage students to use tablets or handheld devices to further research their park and proposed project. Once complete, have students submit their project proposal to be graded, or arrange for class presentations on the map.

Finally, have students put their proposals into action! Contact your local provincial park and invite Ontario Parks staff into the classroom or visit them and share your plan with them.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships
- ▷ Geographic perspective

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

Geospatial Skills

- ▷ Spatial representations
- ▷ Technology
- ▷ Fieldwork

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade tk: Grade 7: A1, B1, B3
- ▷ Grade 8: A1, A2, B3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, C2, C3
- ▷ Grade 10 (CHV2): A2, B1, C1, C2
- ▷ Grade 11 (CGD3M): A1, A2, B1, B2, C1
- ▷ Grade 12 (CGR4M): A1, A2, B1, B2, B3, C1

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





SCIENCE AND RESEARCH



Extend your geographical thinking

A “bioblitz” can be defined as a brief period of time where experts and people from the general public come together to collect data about species in a specific area. Ontario Parks has been offering bioblitz opportunities at their parks for a number of years. Examples of bioblitzes include bird watching and identification at Lake Superior Provincial Park and participating in the “outdoor lab” at Murphys Point Provincial Park.

Contact DiscoverySchool@Ontario.ca to arrange for a class trip to a nearby provincial park (or visit a local park or green space), and create your own bioblitz (ontariobioblitz.ca). Invite parents, community members, and local experts to participate too!

Modifications

For younger grades, introduce the scientific method before doing the activity on the map and review each Ontario Parks Research card together as a class or in larger groups. Have students determine the scientific method used for each research project.

For older grades, the project proposal students develop in the conclusion can be a summative project. Research can take place over multiple class periods.



SCIENCE AND RESEARCH





HEALTHY PARKS, HEALTHY PEOPLE



Overview

In this activity, students will make connections between Ontario's population, the location of provincial parks, and how people benefit from connecting to these parks.

Time

75 mins

Grade Level

5-9, 11-12 (Can be adapted for all grade levels.)

Learning Goals

- ▷ Students will define the term “nature deficit disorder” and discuss the benefits nature offers people.
- ▷ Students will examine case studies from Ontario Parks that highlight the need to balance the needs of healthy parks and healthy people.

Materials

- ▷ Challenge cards (18)

Lesson Description

Minds on

Students will be introduced to the term Nature-deficit Disorder and discuss the benefits of being out in nature.

Action

Students will learn more about the Healthy Parks Healthy People global movement and investigate what Ontario Parks is doing to create a balance between offering healthy parks to its visitors and promoting a place for people to get out in nature.

Conclusion

Students will discuss other challenges Ontario Parks faces and discuss how we can work together to promote the ecological integrity of the Ontario Parks system.

Lesson Implementation

Minds on

Once students have had an opportunity to explore the Giant Floor Map independently, have students stand around the map's border. Place four different coloured pylons on each corner of the map and inform students that you are going to ask them a series of questions and they have to answer by going to one of the colours. Inform students that the **red** pylon represents “never tried,” **green** represents “have done more than once,” **yellow** represents “want to try,” and **blue** represents “have tried only once.” Read out a series of activities (one at a time) to the class and have students observe how many students are standing at each corner of the map. Activities to read to the class include:

- Hiking
- Camping
- Canoeing/kayaking
- Fishing
- Swimming in a pool
- Swimming in a lake/river
- Playing a computer game
- Going to a movie theatre
- Exploring virtual reality



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HEALTHY PARKS, HEALTHY PEOPLE



Discuss which activities most of the group have tried and which the least number of students have tried. Why do they think this might be? Link this discussion to the fact that more people are spending more time indoors, which is causing a disconnect from nature.

Introduce the term Nature-deficit Disorder to your students and explain that more and more people (adults and children alike) are spending less and less time outdoors. There is a belief that this disconnect with nature is causing a change in behavior and causing physical, mental and social problems. Ask students to brainstorm with a partner three benefits of being outside in nature and one negative outcome from not being out in nature. Allow time for students to share their thoughts and compare ideas with the rest of the class.

Some ideas that may come up in discussion:

- Regular use of natural areas for physical activity can reduce your risk of mental health problems.
- Contact with nature is essential for childhood development.
- As exposure to nature increases, children’s stress levels decrease.
- Exercise in nature has a more positive effect on blood pressure and mood than exercise in a gym.
- A two-hour walk in the woods is enough to improve sleep quality.

Connect these ideas with Ontario Parks. Ask students what benefits arise from visiting Ontario Parks and why it is important to encourage people to get outside and explore nature in these places. Look at the map and come up with a few examples of how people might be able to make use of Ontario Parks to integrate nature into their daily lives.

Action

Inform students that Ontario Parks supports Healthy Parks Healthy People, a global movement that promotes the importance of being outside in nature. Explain to students that in order to successfully promote this movement, Ontario Parks needs to create a balance between providing access to the park (encouraging people to be healthy) with protecting the natural environment (preserving healthy parks).

To help student further understand this concept, have a brief discussion about what the phrase “healthy parks and healthy people” means.

- **Healthy parks:** Why is there is a need for healthy parks? What do parks do for us?
- **Healthy people:** Why do we need to connect more people to parks? What can be done to make this connection?

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships
- ▷ Geographic perspective

Inquiry Process

- ▷ Interpret and analyze
- ▷ Communicate

Geospatial Skills

- ▷ Spatial representations
- ▷ Fieldwork

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 5: B1, B2, B3
- ▷ Grade 6: B1, B2, B3
- ▷ Grade 7: A1, A2, B1, B3
- ▷ Grade 8: A1, A3, B1, B3
- ▷ Grade 9: (CGC1D, CGC1P):
A1, A2, B1, B2, B3, D1, E1, E3
- ▷ Grade 11 (CGF3M):
A1, A2, B1, B2, C1, C2
- ▷ Grade 12 (CGU4M):
A1, A2, B1, B2, B3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





Divide students into pairs and give each pair a different Challenge card that addresses how Ontario Parks creates a balance between healthy people and healthy parks. Explain to students that each card identifies a different challenge that Ontario Parks faces when creating this balance. Allow time for students to locate the park identified on their card and to review the information on the back of the card. Ask students to identify the challenge Ontario Parks faces in their particular park and how they are addressing this challenge. Ask students to think of their own ideas on how to address this challenge.

Conclusion and Consolidation

Have students sit around their highlighted park and ask for a volunteer from each group to share their case study. Once all groups have shared, create a class discussion focusing on the challenges of creating an outdoor space that is accessible for people while also protecting the natural environment. Ask students to share other challenges they feel exist in parks. What are the benefits of parks when the environment is healthy? What are the benefits to people when they spend more time outdoors? Conclude the discussion by brainstorming a definition for ecological integrity and ideas about how the class can work together to protect the ecological integrity of Ontario Parks.

Extend your geographical thinking

Nature-deficit Disorder is becoming more and more of an issue for people and studies have shown that spending time out in nature is good for your mental, physical and social health. Make a class pledge to spend more time outdoors and share your pledge with others in the school. Create a “30 x 30” action plan with your students: 30 minutes of outside time each day for 30 days. Ask students to make an action plan with their families on how they can get outside and spend more time in nature. Arrange a community nature walk to kick off this new initiative.

Modifications

The content on the Case Study cards may be too advanced for younger grades, so focus on the challenges and ask students to share their ideas on how they would address these challenges. Once students have shared their ideas, read the case study to the class together and locate the park together as a class.

Bringing handheld devices onto the map to access Google Earth is a great way for students to see the physical environment and initiatives of the park where their case study takes place.

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**HEALTHY PARKS,
HEALTHY PEOPLE**



13

SUSTAINABLE OUTDOOR RECREATION



Overview

In this activity students will learn about the importance of outdoor recreation in Ontario Parks and how visitors use parks.

Time

75 mins

Grade Level

2-4, 7-9, 11 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will learn about outdoor recreation activities available at Ontario Parks.
- ▷ Students will explore the variety of activities based on seasons.
- ▷ Students will design and develop their own sustainable activity in a provincial park of their choice.

Materials

- ▷ Ontario Parks cards (126)
- ▷ Icon card (1)
- ▷ Student notebooks (optional - not included)
- ▷ Handheld devices (optional - not included)

Lesson Description

Minds on

Students will discuss and examine the types of activities visitors can do in Ontario's provincial parks.

Action

Students will learn about sustainability and design their own eco-tour in a provincial park of their choice.

Conclusion

Students will present their eco-tours and discuss what happens when ecological integrity is ignored.

Lesson Implementation

Minds on

Begin with a class discussion about the types of activities students like to do outside. Ask each student to name their favourite outdoor activity.

Next, ask students to stand on a provincial park they have visited before or would like to visit. Ask students about the types of activities you can do at this location, or that they have done or would like to do. Have students consider why people would want to visit this park and what would attract them to this location.

Shuffle the Ontario Parks cards and give each student one card. Ask students to locate the park labelled on their card and examine the information on the back of the card that highlights the facilities and activities offered at the park. Ask for a volunteer to share one of the activities offered at their park and ask students who have the same activity to raise their hand. Continue this until all students have shared a type of activity or facility at their park. Discuss why some parks offer some facilities and others don't. Which parks offer all-season activities and which don't? Why do they think that is?

Action

Ask students what "sustainability" means and create a class definition around this subject. What is an example of a sustainable initiative students are doing in their school, at home? Why is a knowledge and understanding of sustainability important for everyone?

Connect this discussion with provincial parks. Ask students how they can ensure the sustainability of a park when they are visiting it. What can visitors do and what can Ontario Parks officials do? Introduce ecotourism to your students and what it means to participate in an eco-activity, or an activity that ensure the sustainability of the environment.





SUSTAINABLE OUTDOOR RECREATION



Inform students that one of the main goals of Ontario Parks is the maintenance of ecological integrity. Ecological integrity refers to the ability of an ecosystem to support and maintain all ecological processes and sustain life for its diverse organisms. Have students close their eyes and think about a time when they were out in nature. Ask them what they heard, smelled, saw, felt and if there was evidence of ecological integrity. How can places ensure ecological integrity?

Using the same Provincial Park card they were given previously, or breaking off into small groups, inform students that they are going to design their own sustainable tourist activity or eco-tour in their park of choice.

Students can use their notebooks to plan their activity and/or a handheld device to assist with the planning and preparation. Students are encouraged to be as specific as possible and to consider the following:

- **Park name**
- **Season**
- **Name** of the activity
- **Duration** (time/length)
- **Materials** used (what do you need to protect the local landscape)
- **Preparation**
- **Skill level/age** of visitors
- **Number** of visitors to the park each year
- **Procedures**/steps taken to ensure the environment is protected
- **How** it is sustainable/connected to ecological integrity

Conclusion and Consolidation

Allow each group, or a select group of student volunteers, to present their sustainable eco-tour to the rest of the class. Afterwards, ask students what challenges they ran into while planning and how long it would take to establish their activity. Finally, ask students if their activity connects back to Ontario Parks' mission.

Conclude by asking students to consider what happens if we ignore ecological integrity and what factors may challenge this theme as population continues to grow, cities continue to expand, and climate continues to warm.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Interrelationships
- ▷ Geographic perspective

Inquiry Process

- ▷ Interpret and analyze
- ▷ Evaluate and draw conclusions
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ **Grade 2:** B1, B3
- ▷ **Grade 3:** B1, B2, B3
- ▷ **Grade 4:** B1, B2, B3
- ▷ **Grade 7:** A1, A2, B3
- ▷ **Grade 8:** A1, B1, B2
- ▷ **Grade 9 (CGC1D, CGC1P):** A1, A2, B1, B2, B3, E1, E3
- ▷ **Grade 11 (CGG3O):** A1, A2, B1, B2, C1, C2, C3, D1, D2, D3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





SUSTAINABLE OUTDOOR RECREATION



Extend your geographical thinking

Have a discussion about overtourism with students and ask students to come up with some ideas on how Ontario Parks can deal with this. Use this opportunity to also bring up undertourism and ask students for ideas on how to get more people to visit a park with low visitation rates.

Locate the provincial park closest to your school and contact DiscoverySchool@Ontario.ca to arrange a class trip to that park. Prior to the class excursion, have students research and plan ecotourism activities and put these into action when you visit. Share your experience with Ontario Parks by contacting someone at that park or on social media [@OntarioParks](https://twitter.com/OntarioParks).

Modifications

When students are brainstorming the types of activities they can do in provincial parks, have them play a game of charades and act out the activity.

Have students use their notebook or a handheld device to take notes and bring their sustainable activity to life.



SUSTAINABLE OUTDOOR RECREATION



14

CAREERS IN ONTARIO PARKS



Overview

In this activity, students will learn about the variety of careers available with Ontario Parks.

Time

75 mins

Grade Level

3-12 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will examine the types of careers associated with the Ontario Parks system.
- ▷ Students will use the Giant Floor Map to map out different types of careers and connect locations to different job types.

Materials

- ▷ Career cards (9)
- ▷ Coloured chains (16)
- ▷ Coloured pylons (20)

Lesson Description

Minds on

Students will explore the map and discuss the different types of careers that exist in Ontario.

Action

Students will explore Ontario Parks and the variety of careers available within the organization.

Conclusion

Students will discuss and compare and contrast how location plays a role in the types of jobs needed in Ontario Parks.

Lesson Implementation

Minds on

As students are exploring the Giant Floor Map, bring attention to the different layers on the map. Have students stand on a town or city and ask students about the types of jobs that exist there. Next, have students stand on a highway and ask them about the types of jobs needed to build a highway system. Finally, bring attention to the Ontario Parks and have students stand on a different provincial park. Ask students about the types of jobs that exist within the park.

Using the coloured chains, have students divide the map into four areas. Students can choose to divide the map up in any way they choose: based on latitude, population or physical regions. Afterwards, divide students into four groups and assign each group a different area in Ontario. Ask students to explore their area and the provincial parks that exist within their area. Next, have each group brainstorm as many types of jobs as possible that they feel might exist in the parks in their area and to choose five jobs to share with the rest of the class. While students are brainstorming, have them think about their geographical location, nearby towns, accessibility and which of their parks would be seasonal versus year round. Ask students to think about how these factors might affect staffing needs at provincial parks. Allow time for each group to share their thoughts with the class.

Action

Clear the chains off the map and have students line up on the map's border. In pairs or individually, give students a different Career card and a coloured pylon. Inform students that they are going to learn more about the types of jobs that are needed in order to run, maintain, and protect the environment in Ontario Parks. For this activity, students will be assigned a different career and will use the Giant Floor Map to map out the parks in which their job would be needed. Students will also learn about the roles and responsibilities for their career.



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CAREERS IN ONTARIO PARKS



Allow time for students to review their Career cards and have them follow the instructions on their card. Inform students that each card is given a different task connected to their job and students must follow the instructions to solve their task. Have students place their coloured pylon on the place where their task would take place.

Conclusion and Consolidation

Allow time for students to share their career and task with the rest of the class. Encourage students to make a game by having them describe their job first and having other students guess the career, followed by a brief presentation on the roles and responsibilities of this job and why they selected the location they did. Ask students which provincial park they would want to work at if they had this job. Finally, discuss the types of careers that are not covered in the cards. Careers not mentioned include: marketing, promotion, social media operations, business, accounting and financial management, and operating positions including architect and public health auditor. Ask students about the types of jobs student workers have in the parks. Explain to students that Ontario Parks hires around 2,000 students each year across the province to work in Ontario Parks during the summer.

Conclude the activity by connecting the careers students learned about to the geography of Ontario. Bring attention to some of the Ontario parks in more remote locations and ask students about the challenges of certain jobs or how the different seasons would impact park operations. What about Ontario parks that are easily accessible and receive thousands of tourists each year? How do jobs differ compared to those in more remote locations? What patterns or trends do students see connected with Ontario Parks jobs and the population of Ontario?

Extend your geographical thinking

Have students choose one career from the Career cards and research the type of post-secondary education they need in order to pursue this career. For older grades, have students research student positions available at parks. Jobs are posted in January and February on the Ontario government jobs website and all across Ontario. Ask students to select their top three colleges or universities in Ontario and use the Giant Floor Map to highlight them. If possible, have students make small Career cards to highlight the location of the universities/colleges and the career associated with them. Afterwards, host a career night for the school and share what you have learned with other students!

Modifications

Students can use hand-held devices to assist with this activity. They can research further into specific examples for each career from the Ontario Parks website or use Google Earth to investigate specific information about what each park looks like and the facilities offered (e.g., campsites, beaches, trails).

For younger students, focus on the variety of careers and play a game of Simon Says to act out the types of careers and the roles and responsibilities connected to them. Younger grades can also discuss how these jobs work together as a team to keep the park running smoothly.

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and trends
- ▷ Spatial significance

Inquiry Process

- ▷ Gather and organize
- ▷ Interpret and analyze

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: B1, B2, B3
- ▷ Grade 4: B1, B2
- ▷ Grade 5: B1, B3
- ▷ Grade 6: A2, A3
- ▷ Grade 7: A1, B1, B3
- ▷ Grade 8: A1, A2, B3
- ▷ Grade 9 (CGC1D, CGC1P): A1, A2, B1, C2, C3
- ▷ Grade 10 (CHV2): A2, B1, C1, C2
- ▷ Grade 11 (CGD3M): A1, A2, B1, B2, C1
- ▷ Grade 12 (CGR4M): A1, A2, B1, B2, B3, C1

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.



15 ROAD TRIP!

Overview

In this activity, students will be encouraged to visit as many provincial parks as possible on the Giant Floor Map while also learning about the importance of proper planning and visitor etiquette.

Time

75 minutes

Grade Level

3-9, 11 (Can be adapted for multiple grade levels.)

Learning Goals

- ▷ Students will plan, prepare and map a road trip to visit three or more provincial parks from their hometown using the Road Trip template provided.
- ▷ Students will research and identify activities for each location, sleeping arrangements, travel companions, and a trip budget.
- ▷ Students will provide a detailed list of things to pack and an explanation of why these items were selected.

Materials

- ▷ Road Trip template (1) (option to be photocopied for each student)
- ▷ Handheld devices (optional)
- ▷ Ontario Parks cards (126)

Lesson Description

Minds on

Students will review map features and measuring scale.

Action

Students will plan, prepare, and map a road trip.

Conclusion

Students will present their road trip to the rest of the class.

Lesson Implementation

Minds on

Once students have explored the Giant Floor Map, review and locate the five main components of all maps: title, legend, border, compass and scale. Bring attention to the map's scale. Ask students to get into small groups and select one student in each group to measure their foot on the map's scale to determine how many kilometers their foot represents. Next, have each group work together to measure how far they can travel if they drove 500 kilometers. How many footsteps would that be? Ask students to stand on a place they have visited before that is located on the Giant Floor Map. Using their knowledge of scale, ask students how many kilometers it is from their hometown and to estimate the approximate amount of time it took to travel to this location. Have students map out three different routes you could take to travel from your hometown to this location. Remind students that there are more ways to travel to a location than just driving a car. If applicable, have students use one waterway route to map it out.

Finally, group students together and ask for a few volunteers to share one of their routes with the class. Ask students to think back to when they travelled to this place and what they brought with them. Was it a day trip or a multi-day visit? Who went with you and what did you pack? Did you plan any stops along the way? Where?

Action

Explain to students that planning and preparing for a trip, whether it is just for the day or for a multi-day visit, takes time and research. It is important to be prepared and plan ahead to ensure that everyone has a good time and is safe. Ask students for ideas on how to plan and prepare for a trip. What needs to be considered?



15 ROAD TRIP!



Inform students that they will be designing and planning their own road trip to visit three or more Ontario Parks. Distribute a copy of the Road Trip template to each student or student pair and review the template together as a class. Explain to students that they will:

- **map out** a road trip to a minimum of three Ontario Parks and identify during which season they will be travelling
- **research and identify** activities and main sights for each location
- **determine** their travel companion(s) and trip duration
- **propose** a detailed packing list, an approximate budget, accommodations (e.g., motel outside the park, tent, cabin), and a method of travel (e.g., car, boat, canoe, foot, bike, motorcycle)
- **highlight** potential risks they may experience during their trip and how they plan to avoid or stay safe around this type of danger

Allow time for students to plan their route on the Giant Floor Map and to use their handheld devices to assist with the research. Students can also use the Ontario Parks cards from the Exploring Ontario Parks activity or any other type of card from previous lessons that may be of use to their planning.

Conclusion and Consolidation

Allow time for students to present their road trips to the rest of the class. To save on time, students can also be divided into the season their trip will be taking place in and present to other students of the same season.

Once students have shared their trip, bring everyone back together for a class discussion. Ask students what challenges they ran into while planning. How did the season they chose influence the challenges/dangers? What did students learn about planning and preparation? How would their trip be different if a different person went with them? How much did people spend on their trip? How could money be saved?

Finally, discuss any patterns and trends in what students noticed about the Ontario Parks they wanted to visit. Which parks were most visited by students?

Connection to the Canadian Geography Framework

Concepts of Geographic Thinking

- ▷ Patterns and Trends
- ▷ Interrelationships
- ▷ Geographic perspective

Inquiry Process

- ▷ Formulate questions
- ▷ Gather and organize
- ▷ Communicate

Geospatial Skills

- ▷ Foundational elements
- ▷ Spatial representations

Connection to the Ontario Social Studies and Geography Curriculum

- ▷ Grade 3: B1, B2, B3
- ▷ Grade 4: B1, B2, B3
- ▷ Grade 5: B2
- ▷ Grade 6: A3, B1
- ▷ Grade 7: A1, A2, B3
- ▷ Grade 8: A1, A3, B2
- ▷ Grade 9 (CGC1D, CGC1P) : A1, A2, B1, B3, D3, E2, E3
- ▷ Grade 11 (CGG3O): A1, A2, B1, C1, C2, D1, E1, E3

Note: These curriculum connections are linked to the big ideas and are suggestions. Teachers from all grade levels are encouraged to use this activity and make their own curriculum connections accordingly.





ROAD TRIP!



Extend your geographical thinking

Planning for a trip and ensuring you are safe while out in nature is very important. Have students select a different provincial park or select the provincial park closest to your home community and research the kinds of activities they can do in this park. Have students consider the activities they would like to do, what they would like to learn about, and how their day might turn out.

Once students have selected the type of activity they are interested in, have them create a safety poster or infographic about how to stay safe while doing this activity. Share these with Ontario Parks at DiscoverySchool@Ontario.ca to help raise awareness about being safe and prepared while exploring outdoors.

Modifications

Students can use technology, such as hand-held devices, to assist with mapping their road trip, researching the types of activities they will take part in, and budgeting a cost for the entire trip.

For older students, you can set more specific limitations for the planning, such as mandatory distances, activities, or even doing a road trip in a particular season.

For younger students, you can learn and plan together as a class and have each student act out a different type of activity they want to do in the park based on the images provided on the Ontario Parks cards.



ROAD TRIP!

