

The World Around Me

Activity Overview: In this activity, students and teachers view the natural features and other land uses (residential, employment, institutional, rural) in the area around their school using Geographic Information Systems (GIS). One (1) Peel Planning staff member is needed to coach one (1) or two (2) high school student volunteers to deliver this activity (approximately 10 minutes in duration).

Objectives:

- To introduce the basics of geographic data and mapping using GIS.
- To raise awareness of natural features and other land uses located near schools and homes.
- To recognize that the natural features in neighbourhoods such as wetlands and woodlands are important to wildlife and people.

Materials:

- 18 Map Posters

Vocabulary:

Areas of Natural and Scientific Interest (ANSIs): Areas of land and water containing significant natural features.

Environmentally Sensitive or Significant Areas (ESAs): Places where rare or unique plant species, animals or habitats exist and require protection.

Geographic Information Systems (GIS): A system of hardware and software used for storage, retrieval, mapping and analysis of geographic data.

Niagara Escarpment: A provincially significant, 725 kilometre (450 mile) long geological feature.

Oak Ridges Moraine: The Oak Ridges Moraine is an environmentally sensitive, geological landform in south central Ontario, covering 190,000 hectares.

Valleys: The natural system associated with rivers.

Wetlands: Lands that are temporarily or permanently covered by shallow water Swamp, Marsh, Fen, Bog.

Woodlands: Lands having a cover of trees, shrubs and ground vegetation.

What Will I Be Doing? (Procedure):

Introduction

- Make sure that everyone can see the maps (have the maps at the front end of the table and the students surrounding the sides). Remember to talk loud enough so that the students at the back can hear.
- Make the experience as interactive as possible by asking the students to raise their hand if they see any other landmarks that they recognize.
- Choose 1-2 landmarks from each map (other than the ones in Peel/Canada) if the activity is running long.

Say: “Welcome to The World Around Me. Today at this activity you will be exploring locations around the world both natural and manmade.”

Green Colour Group – Intermediate

Great Lakes Map

- Ask what is on the map.
- Answer: The Great Lakes.
- Have the students try and guess which lake is which.
Answers: 1. Lake Superior, 2. Lake Michigan, 3. Lake Huron, 4. Lake Erie, 5. Lake Ontario.

Southern Ontario Map

- Ask students where this is- HINT: it is labelled in the bottom corner. Answer: Southern Ontario.
- Ask students to identify where we are (Brampton or Peel).

Peel 1984 vs. 2018 Map

- “This map of Peel Region in 1984 and in 2018”
- “Compare 1984 to 2018, what is different?”
- It is anticipated that you will get a fair bit of feedback.

Map #1 (Heart Lake)

- Ask them where it is, HINT- It is where we currently are (Answer: Heart Lake).
- OPTIONAL: “Can you guess what the labelled landmarks are?” Here are the answers: 1. Lake (Heart Lake), 2. Swamp, 3. Beach, 4. Fen, 5. Marsh, 6. Golf Course (Sand Trap), 7. Swimming Pool & Splash Pad, 8. Farmers Field (Crop).

Map #2 (Downtown Brampton)

- “Can you guess where this is?” Answer: This map is of Downtown Brampton, the city we are in now.
- “Can you find City Hall?” This is labelled as “1”

Map #3 (Downtown Mississauga)

- “Can you guess where this is?” Answer: This map is of Downtown Mississauga, the city just south of Brampton.
- “Can you find 1. Square One Mall or 2. the Marilyn Monroe Buildings?”

Map #4 (Downtown Toronto)

- “Can you guess where this is?” Answer: This map is of Downtown Toronto, the city just south-east of Brampton.
- “Can you identify all six buildings?” Here are the answers: 1. CN Tower, 2. Rogers Centre - Blue Jays play here, 3. Scotiabank Arena - Leafs and Raptors play here, 4. Ripley’s Aquarium, 5. Scotia Bank Tower.

Map #5 (Canada’s Wonderland)

- “Can you guess where this is?” Answer: This map is of Canada’s Wonderland, an amusement park in the city of Vaughan.
- “Can you identify all six rides?” Here are the answers: 1. Leviathan, 2. Behemoth, 3. Splash Works, 4. Vortex, 5. Mighty Canadian Minebuster, 6. Wild Beast.

Map #6 (Niagara Falls)

- “Can you guess where this is?” Answer: This map is of Niagara Falls. Ask if they have been there.
- Ask what is the difference between both sides of the Falls (ANSWER: one side is Canada and the other is USA).
- 1. Horseshoe Falls (Canadian), 2. American Falls, 3. Skylon Tower, 4. Hornblower Boat Cruise (Maid of the Mist), 5. Fallsview Casino.

Map #7 (New York City (Lower Manhattan), USA)

- “Can you guess where this is?” Answer: This map is of New York City (Lower Manhattan).
- Ask if anyone has been there or if they would like to go.

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- OPTIONAL: “Can you identify all six buildings?” Here are the answers: 1. 1 World Trade Centre (Freedom Tower), 2. Brooklyn Bridge, 3. Trump Building, 4. Battery Park, 5. Empire State Building, 6. Chrysler Building.

Map #8 Walt Disney World (Magic Kingdom)

- “Can you guess where this is?” HINT- It is the happiest place on Earth. Answer: This map is of Walt Disney World (Magic Kingdom).
- “Can you identify all six buildings/rides?” Here are the answers: 1. Cinderella’s Castle, 2. Main Street USA, 3. It’s A Small World, 4. Seven Dwarfs Mine Ride, 5. Buzz Lightyear’s Space Rangers Spin, 6. Haunted Mansion.

Map #9 Las Vegas, Nevada, USA

- “Can you guess where this is?” HINT- This is the place with many casinos. Answer: This map is of Las Vegas.
- OPTIONAL: Answers: 1. Luxor, 2. MGM Grand, 3. Planet Hollywood, 4. New York, New York, 5. Paris, 6. Caesar’s Place.

Map #10 Amsterdam, The Netherlands

- “Can you guess where this is?” Answer: This map is of Amsterdam, The Netherlands.
- “Do you know what the man-made rivers are called and what they are used for?” Answer: Canals. They were historically used for moving goods and people with boats.
- What mode of transportation do most people use get around town in Amsterdam? Answer: Bicycle.

Map #11 London, England

- “Can you guess where this is? This map is of London, England. Ask if anyone has been.
- OPTIONAL: “Can you identify all six locations?” Here are the answers: 1. London Eye, 2. Big Ben, 3. Parliament Buildings, 4. Golden Jubilee Bridge, 5. Westminster Bridge, 6. Westminster Abbey.

Map #12 Paris, France

- “Can you guess where this is? This map is of Paris, France.
- “Can you identify all three locations?” Here are the answers: 1. Eiffel Tower, 2. Champ de Mars, 3. Palais de Chaillot.

Map #13 Rome, Italy

- “Can you guess where this is? This map is of Rome, Italy.
- “Can you find the Colosseum?”
- “Do you know what happened in the Colosseum?” ANSWER: It is where the Gladiators fought.

Map #14 Giza, Cairo, Egypt

- “Can you guess where this is? This map is of Giza, Cairo, Egypt.
- “Can you find the Sphinx and the Pyramids?”

Map #15 Sydney, Australia

- “Can you guess where this is? “ HINT- point to the opera house and mention that it can be seen in Finding Nemo. ANSWER: This map is of Sydney, Australia.
- “Can you identify all six locations?” Here are the answers: 1. Sydney Opera House, 2. Sydney Harbour Bridge, 3. MLC Centre, 4. Anzac Bridge, 5. Sydney Tower, 6. Grosvenor Place.

Map #16 Rio de Janeiro, Brazil

- “Can you guess where this is?” HINT- there is a movie about a bird named after this city and this is where the 2016 Olympics and 2014 World Cup were held. ANSWER: This map is of Rio De Janeiro, Brazil.
- “Can you identify all six locations?” Here are the answers: 1. Christ The Redeemer Statue, 2. Pao de Acucar (Mountain), 3. Rio Sul Shopping Mall, 4. Guanabara Bay Beach, 5. Copacabana Beach, 6. Calcao Beach.

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Map #17 Dubai, United Arab Emirates

- “Can you guess where this is?” HINT- The tallest building in the world is here.
ANSWER: This map is of Dubai, United Arab Emirates (UAE).
- “Can you identify the tall building?” It’s the Burj Khalifa.

Wrap-up

Specifically Remind Students:

- Maps and GIS help us locate different land uses in our neighbourhood and around the world.
- We can use these to see how natural features in our neighbourhood are being affected, and to make sure we are not harming wildlife that lives here.
- Many of the natural areas here in Peel depend on water (our lakes and parks for example), so it is important that we keep our water clean.

REMEMBER:

- **You do not need to explain all labelled landmarks/you do not need to go through all optional landmarks.**
- **Try to keep length of activity to 10 minutes (use discretion if you feel you need to skip certain maps if you are running behind).**
- **Ask additional questions to students to have them think about the maps.**
- **Feel free to add in fun facts or questions about the maps.**
- **Have fun!**

Background Information (for high school volunteer):

Most neighbourhoods contain many different land uses such as houses, stores, schools, roads, parks and other natural features. Peel Region contains many natural features that depend on water. Some of these natural features include wetlands, woodlots, ponds, lakes and parks such as the Heart Lake Conservation Area. As the need grows for more housing, schools and businesses, it is important to conserve the natural features for future generations. In addition, climate change can create extreme weather events, such as flooding and heat waves, which impact the natural environment.

In order to track changes in the natural features and other land uses, Peel Region uses GIS. This digital information helps the Region track land uses and allows planners to see how natural environmental areas are being affected. It is also important that we maintain the connection between different environmental features to allow wildlife movement as new developments get closer to these sensitive areas.