

# CGC1P Unit 1: The Diversity of Canada's Natural Landscapes

## Activity 1: Introduction: Geography and Geographic Tools

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### Overview

**Geography** is the study of the distribution and interaction of physical and human features on the earth. Geographers use a wide array of approaches and tools in their work. Mapping, interpretation of aerial photographs, and image analysis using the global positioning system (GPS) and geographic information systems (GIS) are specific to geographic studies. This activity reviews some of these skills and concepts to aid the student to create, analyze and communicate their work in geographic form.

### Lesson

#### *The Geographers Tools*

Two basic tools of geographers are **maps and globes**. In the past, mapmaking relied on surveyors observing, measuring, and recording a specific area based on what they could see. Most mapmaking today, relies on data gathered by remote sensing (gathering information from a distance), primarily by aerial photography or by satellites. Other important tools of geographers are:

- **Geographic Information Systems (GIS)** – a digital, worldwide database of geographic information
- **Global Positioning Systems (GPS)** – a system that uses 24 satellites to find exact positions on the earth's surface by tracking latitude, longitude, altitude, and time.

Maps and globes are different because globes are a three dimensional (3D) representation of the earth while maps are a two dimensional (2D) representation of the earth. Because maps are drawn on a flat surface they can be easily portable and drawn to scale. Maps are (projected) drawn in such a way to reduce the distortion caused by trying to represent a round object (the earth) on a flat surface (the map). A mapmaker is called a **Cartographer**.

#### *Types of Maps*

1. **Thematic map** – These types of maps emphasize a specific type of information. Examples include weather maps, navigation maps (bodies of water), urban maps (cities only) and landscape maps (elevation of hills or mountains only).
2. **General purpose map**- These maps provide many types of information on one map. They are a small-scale map. Examples include road maps, atlas maps and wall maps.
3. **Topographic map** – these types of maps display contour lines that show the shape and elevation of an area. These maps often show a great amount of detail of a small area. They use a key to show a variety of features. They are a large-scale map showing natural features such as hills, mountains, lakes, rivers and human-made features such as cities, roads, airports, and schools.

## Locating Things on a Map

Location can be expressed in two ways- absolute and relative. **Absolute location** refers to the exact place on earth where a feature is found (e.g. a city). **Relative location** describes a place in comparison with other places around it (e.g. direction, time, or direction).

Maps are also divided by imaginary lines to help you locate things easily. These lines include:

1. **Equator**- imaginary line that divides the earth into North and South.
2. **Prime Meridian** - imaginary line that divides East and West.
3. **Latitude**- imaginary lines that run parallel to the equator (East-West).
4. **Longitude**-imaginary lines that go around the earth over poles (North-South).

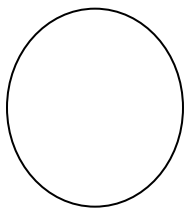
## Mapping Rules

When labeling a map you must always include the following:

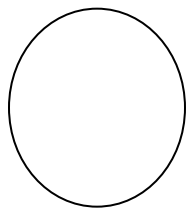
1. **Title** – be specific with your title. What is the map showing, a region, a country?
2. **Direction** – always have a North direction arrow or compass rose.
3. **Scale** – a scale indicates how to measure distance on the map.
4. **Legend** – a legend explains the symbols and colours used on the map.

## Assignment

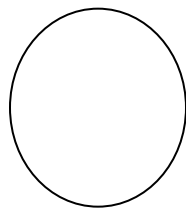
1. Define Geography.
2. What are the two basic tools of a geographer and how are they different? What are some other important tools used by geographers?
3. How is mapmaking different today than it was in the past?
4. What are the 3 types of maps?
5. How are absolute location and relative location different?
6. Draw-in the appropriate lines to demonstrate the equator, prime meridian, lines of latitude and lines of longitude:



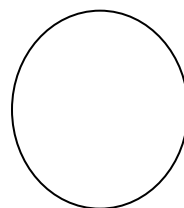
Equator



Prime Meridian



Latitude



Longitude

7. Label the Provinces and Territories and complete the map of Canada.

Title \_\_\_\_\_

Name \_\_\_\_\_



Legend

- |         |         |          |
|---------|---------|----------|
| 1 _____ | 5 _____ | 9 _____  |
| 2 _____ | 6 _____ | 10 _____ |
| 3 _____ | 7 _____ | 11 _____ |
| 4 _____ | 8 _____ | 12 _____ |
|         |         | 13 _____ |