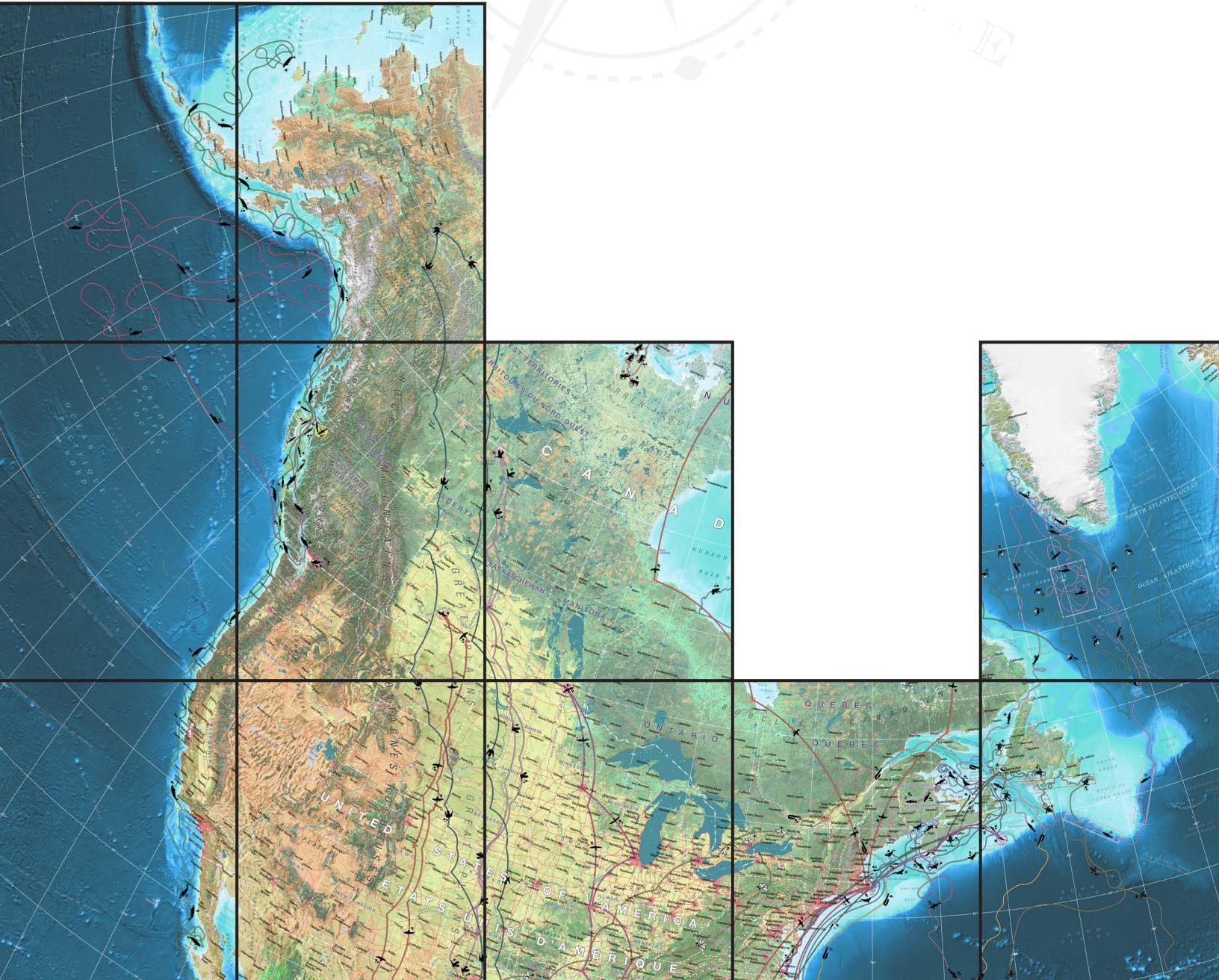


# TILED MAPS

# SENIOR

(Grades 11 - 12, Sec. V)



# SENIOR

---

## INTRODUCTION

**Spatial thinking** is a powerful and useful geographic skill that strengthens student **collaboration** and **communication** and is key to active citizenship in our increasingly global and technological society. Spatial thinking allows students to identify, understand and analyze phenomena related to the spaces around them, recognizing location, scale, patterns, trends, and relationships.

Canadian Geographic Education, in partnership with the S.M. Blair Foundation, is proud to build on the success of their **tiled map program** and offer this instructional booklet. This resource provides teachers with the opportunity to strengthen their lessons plans and enrich their geography classes with hands-on interactive activities, centred on Can Geo Education's tiled maps. Students will explore the basics of geography, mapping skills, and physical and human geography.

Spatial thinking remains a **fundamental skill** that underpins the geographic toolkit that we aim to impart onto our students over the course of their kindergarten to grade 12 or secondary 5 (Quebec) education.



## MAP READING SKILLS

Encourage students to examine the **Tiled Maps** of Canada's provinces and territories or the **Tiled Map of Canada**, and then have them find an **aerial photograph** or **satellite image** from Google Earth or Maps that corresponds to a particular area of their choice on these maps. Ask them to describe its **spatial characteristics**, such as texture, shape, colour, shadow and size. Have them identify and compare the physical and human-made features on the photograph and/or image to the representations on the map (colour, contour lines, etc.). Do they observe any **patterns**?

Present to students different types of **map projections** (conical, conformal, gnomonic, oblique, azimuthal, etc.). Go over the properties of each type. Using the **Arctic Circumpolar Tiled Map**, ask students which projection they think would be the best to represent the Arctic. Divide them into groups to discuss their choice. Would their answer change if the purpose of the map changed, but not the location?

# SENIOR

---



## HUMAN GEOGRAPHY

Using the Tiled Map of Canada, have students **plan a summer road trip** to one destination. They must discuss the appeal of that particular destination. Why do people go there? How does the destination promote itself? What makes this destination less appealing to some? What attractions are there?

Using the Tiled Map of Canada, ask students to **choose a city and research what happens to that city's waste**. Where does it go? Why do they use that system of waste disposal? How does it get there? Is this a sustainable solution? Have them locate the dump site(s) on the map. What do they notice about the location?



## PHYSICAL GEOGRAPHY

Using the Wild Migrations Tiled Map, have students **observe the different types of land cover**. Lead them to make links between the **latitude** and the **characteristics** of the different land covers, and the animals which inhabit that area during their migration cycles. Why do certain birds nest in a particular area? Have students choose and research a physical factor (climate, soil, exposure to sunlight, etc.) of a particular type of land cover. How does this factor affect the characteristics of this land cover? How have the plants and animals adapted?

Using the Lake Winnipeg Watershed Tiled Map, have students observe the expansive nature of the watershed and the number of communities that it touches. Choose a spot on the watershed where a **pollutant** could hypothetically enter the system. Follow the water's route and see how far that pollutant could go. Ask students to research a type of pollutant that has entered, or has the potential to enter, the Lake Winnipeg Watershed. How would it get into the water? How might it affect the watershed? What does this mean for the hydrologic cycle?

Have students find a map of the Arctic from the past. Ask them to compare it to the Arctic mapped on the **Arctic Circumpolar Tiled Map**. They may use ribbons or markers to outline the **shrinking ice cap**. Discuss what the impact has been. Have students predict the Arctic's borders in ten years' time. What will the effects be on trade, on the animals, on the people, etc.?