

SEASONAL CYCLES AND MIGRATION PATTERNS

PRE-TEACH/PRE-ACTIVITY

Research with your class the different seasons and discuss what they know about each. Have students list activities they do in each season, noting activities that are done only in one season. How is the land used differently in each season? Which areas of Canada experience seasons differently from the seasonal weather you experience in your local community? How are they different? Discuss how your students' knowledge of each season helps them to prepare and survive, using examples such as dressing warmly in the winter or bringing a water bottle with them in the summer.

LEARNING OUTCOMES:

- Students will be able to identify the different seasons and yearly cycles.
- Students will learn to read the land in various seasons.
- Students will understand the importance of respecting the seasonal cycles and learning how to listen to the seasons.

SEASONAL CYCLES AND MIGRATION PATTERNS

Foundational knowledge and perspectives

FIRST NATIONS

“It was once commonplace for First Nations peoples living traditional lifestyles to travel to different parts of their historic territory at different times of the year to obtain resources. This is referred to as a seasonal round. During the warmer months, it was relatively easy to move within different resource areas. But in the winter, most communities would settle in a single area where shelter was adequate and resources were readily available or could be stored.

To illustrate, consider the Secwepemc of British Columbia, known in English as the Shuswap people. “In winter people moved to their winter villages and settled in the underground pithouses. Short day trips were made for ice fishing and hunting local game. Families would also rely on their winter stores of dried salmon, deer, elk, plants and berries.

In spring the Secwepemc would venture from their winter villages in pursuit of fresh food sources. After a long winter, fresh edible green shoots of fireweed, cow parsnip, balsam root and Indian celery were welcome treats. Each plant was harvested as they became available and immediately consumed or preserved for future use.

By the end of June saskatoon berries would be ready for picking. Large amounts of these berries were harvested and dried for future use. Other berries such as strawberries, thimble berries, soapberries and

raspberries soon followed. Much of the summer was spent gathering a variety of berries.

Towards the end of summer, families would begin fishing for spring and sockeye salmon at different weir sites and riverbanks. The salmon would be dried and stored for winter usage. From September to October the primary activity was hunting. The game hunted included deer, elk, caribou, bear, mountain goat, and beaver. Small animals such as grouse, ducks, and mixed with berries and fat and made into dried cakes for storage. As the winter stores grew fuller, the Secwepemc would once again settle into their winter dwellings.”

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—from “Resource Gathering,” at http://secwepemc.sd73.bc.ca/sec_village/sec_round.html

The Athabaskan people were also mobile. A depiction of a typical Athabaskan seasonal round can be seen on the Alaska Native Knowledge Network website: ankn.uaf.edu/curriculum/Athabaskan/ObservingSnow/fourcorners.html

A great description of seasonal changes in resource availability and environmental conditions in the Yukon can be found on the Cultural Survival organization’s website: culturalsurvival.org/publications/cultural-survival-quarterly/wild-food-its-season-seasonal-round-harvest-activities



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Foundational knowledge and perspectives

MÉTIS

“Traditionally, Métis families and communities traversed the landscape following the reproductive and ripening flora and fauna cycles, which meant adapting their lives to the changing seasons. The Métis had to be flexible in order to work well together in times of plenty, and to work independently when resources were scarce. The seasonal cycle was also impacted by the availability of employment opportunities and the cultivation of garden crops or cereal agriculture. A family may have spent the late spring and early summer in a home community where they planted a garden and a plot of wheat, or they may have spent the late summer involved in bison hunting, the fall in berry collecting, the winter in trapping or as part of a winter bison-hunting camp, and the early spring at a fishery.

Today, Métis who live traditional lifestyles still maintain this focus on seasonal cycles. Natural signs indicate to the Métis when it is time to begin a particular activity and when to finish others. For instance, for the Métis of the Paddle Prairie region of northern Alberta, the seasonal cycle begins in Niskipisim or Goose Moon (March), when geese begin their migratory flight to northern nesting grounds, announcing the arrival of spring. All exposed grass, stubble fields, and dead leaves are burned at this time to renew the forest and meadows.

Weather conditions also play a role in the harvesting of resources. For instance, during periods of frequent drought, a situation quite common on the Prairies, the harvesting cycle for such animals as bison, moose, wapiti (elk), and white-tailed and mule deer is adversely affected. Berries such as saskatoons and chokecherries also grow sporadically in periods of prolonged drought.

In such situations, Métis who follow the seasonal cycles have to substitute those scarce goods with other resources, often further afield. This may mean trapping and hunting smaller fauna such as muskrats and prairie chickens (sharp-tailed grouse) or harvesting fish such as pike, pickerel or sturgeon. As a result, there is not one seasonal cycle, but many.

Taking part in a seasonal cycle is a spiritual exercise because the participant is part of a holistic system with all things in creation. Resources are gifts from the Creator for all humans to share. Therefore, when harvesting resources, Métis follow traditional ways and always leave

a gift for the Creator, usually tobacco or tea. If a gift is not left when a resource is harvested, the community runs the risk of losing that resource.

Traditional Métis Medicines

Like most Indigenous peoples, the Métis have their own traditional medicines. Métis medicine is holistic and focuses on the individual's mental, emotional, physical, and spiritual capacities.

Traditionally, Métis women were healers and midwives who provided a large assortment of medicines (known as 'la michinn' in the Michif language) to heal family and community members. Today, both Métis women and men are healers. Rose Richardson of Green Lake, Sask., is a widely respected Métis healer and medicine woman. She is one of many healers and medicine people within the Métis Nation.

Métis medicines almost always include traditional Indigenous plants and remedies, although a few medicines have been handed down from the Métis' Euro-Settler ancestors. Most medicines are gathered from the

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MÉTIS

local natural environment, and many of the same medicines are used across the Métis Nation Homeland. In the February 2011 edition of Eagle Feather News, Métis author Maria Campbell wrote, 'Our drug store was half a mile up the road in a meadow called Omisimaw Puskiwa (oldest sister prairie) where yarrow, plantain, wild roses, fireweed, asters, nettles, and pigweed could be found in great abundance. Some of it was just medicine and some of it like fireweed, nettles, and pigweed was medicine and food.'

Medicines are gathered locally and are dried and stored in the home and are either ground into a powder or made into tinctures, teas, poultices, and salves. They are used as painkillers, anti-inflammatory agents, and digestive aids, and to treat very specific ailments including arthritis, asthma, diabetes, gastrointestinal issues, tuberculosis, cancer, headaches, toothaches, colds, kidney stones, gallstones, venereal diseases, menstruation, cuts, and rashes. When gathering the plants, certain protocols must be adhered to; a prayer of thanks to the Creator is required and tobacco or another 'gift of thanks' must be offered. Moreover, medicine gatherers should harvest only what is needed and no plants should be harmed while harvesting.

There are four sacred herbs and lead medicines that the Métis use — sweetgrass (fwayn seukrii, fwayn di bufflo),

cedar (li sayd), sage (l'aarbr a saent), and tobacco (li tabaa). These herbs are used for cleansing, for sacred offerings, and for prayer. Some other Métis medicinal plants are burdock (li grachaw), balsam (la gratelle), wild sarsaparilla (sasperial), blueberries (lii grenn bleu), broad-leaved plantain (plaanten), chokecherries (lii grenn), cow parsnip (berce), highbush cranberries (lii paabinaw), lowbush cranberries (moosomina), dandelion (pisanli), ginger root (sayn Jean, rasyn), hazelnut (pakan), hemlock (carrot à moreau), juniper (aeen naarbr si koom aen nipinet avik lii gren vyalet), Labrador tea (lii tii'd mashkek), oak bark (ii kors di shenn), rosehip (lii bon tiiroozh), Seneca root (la rasinn), snakeroot (la rasinn di coulyv), spruce gum (gum di sapin), stinging nettle (mazhaan), rat root (Belle-Angélique, weecase), wild mint (li boum), wild onion (zayon faroosh), wintergreen (pipisissew), and yarrow (li fleur blaen).

Medicines can also be harvested from animals, including burbot (mariah, freshwater cod) liver oil, fish milk (bouillon or broth), goose grease, skunk oil (wil de shikaak), sucker heads, and muskrat. Many animals eat plant medicines and as a result, they can be considered medicines as well."

— from "Lifeways" in the Métis volume of the *Indigenous Peoples Atlas of Canada*



SEASONAL CYCLES AND MIGRATION PATTERNS

Foundational knowledge and perspectives

INUIT

“Environmental knowledge and survival skills continue to be important elements of modern Inuvialuit culture. As a large part of their diet is from the harvesting of local fish and wildlife, Inuvialuit look forward to the changing seasons. Geese and muskox are hunted in the spring and fall, whaling and fishing take place in the summer, and caribou hunting occurs in the fall and winter.

The long summer days provide ample opportunities for Inuvialuit to prepare for the winter. Communities appear deserted when residents move out to their whaling and fishing camps.”

—from “Inuvialuit Settlement Region” in the Inuit volume of the *Indigenous Peoples Atlas of Canada*

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SEASONAL CYCLES AND MIGRATION PATTERNS

Points of inquiry and activation related to the Giant Floor Map



- **Research original place names and locate them on the map, using the Inuit Place Names cards as a starting point.** Make connections to the seasonal cycles of the Earth.
- **Reach out to a local Indigenous group and learn words from the local Indigenous language for the different seasons, animals and plants.** Have your students create cue cards with their newly learned words, and have students place them on the Giant Floor Map where they would grow or live, based on the different seasons.
- **Using the Animal Migration cards and ropes in the teacher's kit, map out migratory routes of a variety of animals on the map and discuss how they move in relation to the seasons.** Research additional animals, particularly those in your part of the country.
- **Use the Plant Hardiness Zones, Ecozones, and Forest Regions cards to map out typical vegetation patterns on the Giant Floor Map.** Consider how these patterns may change over time and use the Precipitation Maps and Temperature Maps cards as a reference. Discuss how these vegetation patterns would affect where and how people live.

SEASONAL CYCLES AND MIGRATION PATTERNS

Age appropriate application and experiential learning

ELEMENTARY

K-6

- **Have students make drawings of seasons**, highlighting the different plants and animals they would see in their local area during each part of the year.
- **Have students create drawings of animals** they know in different seasons and discuss how they adapt and change in response to the seasons the seasons.
- **Work with students to create a list** that shows what they know about each of the seasons and how they adapt to them.
- **Explore how the seasons affect their feelings** using the example of The Turtle's Teachings, found at the Virtual Museum of Métis History and Culture: metismuseum.ca/resource.php/12608
- **Research different Indigenous stories** about the seasons and how they are determined. Use the following resources as starting points: "In Inuktitut, the names of the month are many and multifaceted" cbc.ca/news/canada/north/names-months-inuktitut-aseena-mablick-1.3977403, "First Nation Stories" firstnationstories.com/?p=1524, and "Métis Seasonal Cycles" metismuseum.ca/media/db/00742
- **Reach out to organizations** such as the Manitoba First Nations Education Resource Centre and the First Nations Education Steering Committee for a wealth of storybooks and resources to introduce the topic of seasons to your students.
- **Get students to go out** into the schoolyard or neighbourhood and see if they can recognize or find any edible plants or foods. Make a list and compare the list with different First Nations' seasonal gatherings.

INTERMEDIATE

7-9

- **In groups, have students research traditional uses** of plants and animals in your area and discuss how the gathering of each relates to the seasons. Compare and contrast this with examples from other parts of the country.
- **Have groups of students research the seasons** in different parts of the country, comparing and contrasting the regions. Discuss how the differences in regions would have affected how Indigenous Peoples in each area lived.
- **Have students research constellation legends** from Indigenous cultures and compare and contrast them to Greek or other constellation legends. How does each reflect a worldview? Is there any natural or scientific phenomenon included or "explained" through the star legend? How do the differences in the shapes and names of the constellations seen by various groups relate to their everyday lives? Note that "explained" does not have to be factual here anymore than we explain virgin births or rising from the dead. This is part of a peoples' belief system. In other cases, they are just great stories.

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Age appropriate application and experiential learning

- **Most Indigenous cultures watched the night sky** and the location of the stars as both temporal and spatial guides. Research this to learn how it informed them about the season they were in and the location or direction in which they were travelling or facing.
- **If possible, visit Science North's planetarium** to watch the show "Under the Same Stars: Minwaadiziwin."
- **Most students picture** the year as a wall calendar. Envision instead the months of a year as a wheel, or a seasonal round. What customs fall where? How do the weather and landscape change? What relationship do holidays have to the seasonal round? How do seasonal changes affect the daily life, culture, art, history and economy of a community? Use an English or French seasonal round as a template: louisianavoices.org/Unit9/edu_unit9w_seas_round_blan.html or louisianavoices.org/Unit9/edu_unit9w_seas_round_c_fr.html

SECONDARY

10-12

- **Have students individually research traditional uses** of plants and animals as local Indigenous groups use them.
- **Have groups of students research** different parts of the country. Once completed, as a class, compare and contrast the different plants and animals used by different Indigenous groups. Discuss how the landscape, seasons and migratory cycles dictated the patterns and trends they find.
- **Using online mapping tools, have students create** a map of their local area showing local knowledge of the seasons, including animal migrations, precipitation, traditional settlement locations, traditional migration areas, vegetation and any other theme they feel appropriate. If possible, organize a walk with a local Indigenous organization and collect your own data sets.
- **If possible, visit the Museum of Nature's Canada Goose Arctic Exhibit** to understand what research is being done on climate and environmental change in the Arctic and how local people are adapting and collaborating with Canadian researchers.
- **If possible, visit the First Peoples Gallery and the Our Living Languages Gallery** of the Royal BC Museum.

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DEMONSTRATION OF LEARNING

- **Ask students to accurately discuss** the difference between all four seasons from the perspective of flora, fauna and people.
- **Using the Giant Floor Map, have students highlight** areas or communities that have similar weather and seasonal cycles to their local community.
- **Have students draw images** of how the land is used differently by various Indigenous Peoples through the seasons.
- **Have students describe or map** how the characteristics of the Earth and its orbital cycles affect seasonality, and how seasonality affects precipitation and temperature patterns across Canada.
- **Have students select** a region or a population that they can use to demonstrate how many First Nations people today continue to gather resources from within their traditional territories depending on the season and that these people apply the same knowledge and skills that were used centuries ago.
- **Have students compare** the fields of cultural and physical geography and get them to discuss if either of the two can exist without the other.
- **Have students choose a story** traditionally passed on through oral storytelling and tease out any references to seasonality and their importance. Examples can be found in teaching resources on the Crown-Indigenous Relations and Northern Affairs Canada website at aadnc-aandc.gc.ca/eng/1316530132377/1316530184659#chpm1. A story about the origin of the four seasons can be found on page 4 of First Nations Weather, prepared by Lua Young for the Saskatchewan Indian Cultural Centre and the Western Development Museum in 2003: wdm.ca/skteacherguide/SICCRResearch/FNWeather_TeacherGuide.pdf.



LEARNING TO ACTION

- **Invite a local Indigenous group** to your school to learn about the plants and animals traditionally used in your local area. Integrate these lessons and ideas into your classroom.
- **Create a communal school garden**, and make a recipe using the ingredients grown in the garden to highlight the benefits and challenges of seasons.
- **Connect with a local Elder and/or community member** to arrange a nature walk to learn about how the land is used in your local community and how local Indigenous Peoples read the land. Either online or by hand, create a community map outlining your walking tour and what you have learned.
- **Share** what you have learned with others.