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| SCIENCE | GRADE 2 | LESSON PLAN |
| This sample lesson plan supports Education for Reconciliation through the inclusion of First Nations, Métis, and Inuit perspectives; treaty education; and residential schools’ experiences with learning outcomes identified in the current Alberta Programs of Study for Grades 1 to 9 in Science. Each sample lesson plan includes content(s) or context(s) related to one or more of the following aspects of Education for Reconciliation:* diverse perspectives and ways of knowing of First Nations, Métis, or Inuit, including values, traditions, kinship, language, and ways of being;
* understandings of the spirit and intent of treaties; or
* residential schools’ experiences and resiliency.

Links and relevant information in Guiding Voices: A Curriculum Development Tool for Inclusion of First Nations, Métis and Inuit Perspectives Throughout Curriculum and Walking Together: First Nations, Métis and Inuit Perspectives in Curriculum are provided to support understandings of First Nations, Métis, or Inuit ways of knowing. Both online resources are accessed through LearnAlberta.ca. |
| Education for Reconciliation: Perspective – Values |
| **Program of Studies Outcomes****2-4 Demonstrate positive attitudes for the study of science and for the application of science in responsible ways.*** a willingness to work with others and to consider their ideas
* a sense of responsibility for actions taken
* respect for living things and environments, and commitment for their care

**Topic E: Small Crawling and Flying Animals**Students learn about the structure and life habits of animals by studying small animals that live in their own community. By investigating outdoor spaces in and around the school and their homes, students discover a wide range of animals that find shelter and food within the local area. In studying these animals, they learn about where animals live, what they eat, what they are eaten by and features of the animals that suit them to their particular environment.**2-10 Describe the general structure and life habits of small crawling and flying animals; e.g., insects, spiders, worms, slugs; and apply this knowledge to interpret local species that have been observed.*** Identify each animal’s role within the food chain. To meet this expectation, students should be able to identify the animals as plant eaters, animal eaters or decomposers and identify other animals that may use them as a food source.
* Identify ways in which animals are considered helpful or harmful to humans and to the environment.

**Resource[[1]](#endnote-1)**Lethbridge, Victor. *Little Chief and Mighty Gopher: The Pemmican Frenzy*. Storyteller media and Tanaka Productions, 2010. **ISBN:** 978-0-9866738-0-01 **Language:** English (includes CD) **Summary**: This humorous tale depicts the Lakota culture and their perspective on the importance of harmony and balance in nature.*Little Chief and Mighty Gopher: The Pemmican Frenzy.* **Summary:** This is a supporting video (2010), [www.youtube.com/watch?v=apIQGtZ-RFE](http://www.youtube.com/watch?v=apIQGtZ-RFE), YouTubeCA.**Purpose**This lesson provides students with an understanding of the relationships and the role of small crawling and flying animals within a food chain. Students explore where humans and larger animals fit within a larger web. Students also discover the importance of relationships and how all things are interconnected or related and how they influence each other. Students will appreciate that when balance is lost anywhere along the food chain and web, the impact is felt in all natural relationships. **Introduction**Introduce students to the concept of a food chain by showing the [supporting video of](http://www.bing.com/videos/search?q=Littel+Chief+and+Mighty+Gopher&view=detail&mid=E01FE2C6B2C874CC34A7E01FE2C6B2C874CC34A7&FORM=VIRE) *Little Chief and Mighty Gopher*. Students can identify the animals in the video and their relationships to each other (i.e., pemmican, gopher, hawk, coyotes, and buffalo). Read or listen to the book*Little Chief and Mighty Gopher.* Pause and discuss as each new predator is introduced, and discuss what happens, making sure to describe the relationships between the new animal to the others in the food chain. Read the information in the back of the book about the Lakota values, and have students reflect on how the story portrays the importance of the Lakota value of “balance.”**Activity/Experience**In this activity, students will experience a web of food chains actively and collaboratively. Give each student a card with a picture of an animal from the story. Have students think about how their animal would relate to the other animals in a food chain. Students can also identify if this card depicts a meat eater, plant eater, decomposer, or more than one.Have a student take a ball of string and ask him/her to stand next to a student with an animal that connects to the one on their card in a food chain. The first student will pass the ball of string on to the next student standing beside while continuing to hold onto the end of the string. The second student will repeat this process while holding the string, and so on, until all students are connected by the string. The last student will then pass the ball of string back to the first person to close the web.While everyone is connected, ask one student to move a few feet away from the web while still holding onto the string. Discuss the following with students: * What happens when one piece of the web is moved?
* What would happen if one piece of the web was removed?

Discuss other additions to the web for small crawling and flying things, including some cards for invertebrates. Brainstorm different invertebrates that might also be added (e.g., worms, flies, or bees).**Conclusion**Within a talking circle, give each student an opportunity to share their thinking about the experience. Discuss with students: * Is there anything on the web more important than the other?
* Why is it important to care for all things?
* Why is each thing on the web important to all animals and plants?
* Are the smallest animals less important than big animals?
* How is balance achieved through the food chains?
* What happens when that balance is broken?
* How can balance be restored?

**Extension**Students apply their understanding through the use of an online [food chain game](https://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm). Plants and animals are added to each section of a food chain using a drag-and-drop process, starting with simple chains and moving on to more complex ones.Engage students in a group mini-research project about an endangered invertebrate, such as bees. Guide students with information about the honeybee crisis. Discuss reasons why the insect is threatened and how the values (e.g., harmony, balance, and tranquility) may be out of order. In small group talking circles, ask students to discuss what they think might happen if there were no more bees. What aspects of the food chain are impacted? What are some possible actions? Have students ask an Elder or Knowledge Keeper what might happen if there were no more honeybees or if the Elder or Knowledge Keeper knew of a time when an animal was at risk. Students can share what they have learned with the class. **Assessment for Student Learning**Consider multiple ways students can demonstrate their understanding of food chains and the relationships and roles that small flying and crawling animals play within the food chain and the impact when balance is lost anywhere within a web.**Keywords:** food chain; balance; relationships; web; values**Themes:** balance; relationships; values**Teacher Background**[[2]](#endnote-2)**Food Chain Games** * ([www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm](http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm))

**Walking Together: First Nations, Métis and Inuit Perspectives in Curriculum (Alberta Education)*** Traditional Environmental Knowledge – Respecting Wisdom ([www.learnalberta.ca/content/aswt/#/traditional\_environmental\_knowledge/respecting\_wisdom](http://www.learnalberta.ca/content/aswt/#/traditional_environmental_knowledge/respecting_wisdom))([www.learnalberta.ca/content/aswt/](http://www.learnalberta.ca/content/aswt/))

**Guiding Voices: A Curriculum Development Tool for Inclusion of First Nations, Métis and Inuit Perspectives Throughout the Curriculum (Alberta Education)*** Relationships ([www.learnalberta.ca/content/fnmigv/index.html](http://www.learnalberta.ca/content/fnmigv/index.html))

**Our Words, Our Ways: Teaching First Nations, Métis and Inuit Learners (Alberta Education)*** ([education.alberta.ca/media/3615876/our-words-our-ways.pdf](https://education.alberta.ca/media/3615876/our-words-our-ways.pdf))
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1. Some resources may not be authorized but are provided to identify potentially useful ideas for teaching and learning. The responsibility to evaluate these resources rests with the user. The selected resource(s) provide a perspective specific to an individual, group, or nation; they are not intended to represent the perspectives of all First Nations, Métis, or Inuit. [↑](#endnote-ref-1)
2. All website addresses listed were confirmed as accurate at the time of publication but are subject to change. [↑](#endnote-ref-2)