|  |
| --- |
| SCIENCE | GRADE 4 | 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 – Traditions |
| **Program of Studies Outcomes**  **Topic A: Waste and Our World**  Students learn about wastes produced through natural processes and human technology. In studying natural systems, students learn that all plants, animals and other living things are made up of materials that are recycled through the environment again and again. In studying human consumption and wastes, students identify wastes produced within their community and learn the methods used for disposal. They learn that some waste materials are biodegradable, that some are reusable, and that others are toxic. They learn that personal action in reducing, reusing and recycling materials can help decrease the waste we accumulate.  **4–5 Recognize that human activity can lead to the production of wastes, and identify alternatives for the responsible use and disposal of materials.**   * Identify and classify wastes that result from human activity. * Distinguish between wastes that are readily biodegradable and those that are not. * Identify alternative materials and processes that may decrease the amount of waste produced; e.g., reducing wastage of food, using both sides of a sheet of paper. * Identify ways in which materials can be reused or recycled, including examples of things that the student has done. * Identify actions that individuals and groups can take to minimize the production of wastes, to recycle or reuse wastes and to ensure the safe handling and disposal of wastes. * Develop and implement a plan to reduce waste, and monitor what happens over a period of time.   **Cross-curricular Linkages**  **Mathematics**  **Statistics and Probability (Data Analysis)**  Collect, display and analyze data to solve problems.   * Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions.   **Fine Arts: Art**  Component 10 (iii): Media and Techniques: Students will use media and techniques, with an emphasis on mixing media and perfecting techniques in drawing, painting, print making, sculpture, fabric arts, photography and technographic arts.  D. Sculpture   * Continue to make two- and three-dimensional assemblages from found materials, reaching for more sophistication leading to specifics, such as puppets, mobiles, mosaics, papier-mâché.   **Resource[[1]](#endnote-1)**  Farrell, Amy. “Waste Not, Respect Always” (pp. 44-47) in *Protecting the Planet*. Don Mills, Ontario: Pearson Canada Inc., 2012. **ISBN**: 978-1770583399  **Summary:** Traditionally, ancestors of First Nation, Métis, and Inuit used resources wisely, not wasting any part of the plant or animals. Many of these traditions are still honoured today.  **Purpose**  This lesson provides students with an understanding of how First Nations, Métis, and Inuit live in harmony with the natural world and are respectful of Earth’s resources. As stewards of the environment, there should be a mindfulness of how to minimize waste.  **Introduction**  Have students make a list of the things they put in the garbage yesterday. Think about mealtimes or events at school and at home. Working with partners, have students compare their lists. What happens to our waste? Where does it go? What are some problems associated with the amount of waste we produce?  **Activity/Experience**  Read the story “Waste Not, Respect Always” in *Protecting the Planet*. Discuss how the Eastern Woodlands and Haida reduce waste in their lives. As a class, make a list of the different ways identified in the reading. Why was it important for the Eastern Woodlands and Haida to be resourceful? What can we learn from these stories about waste?  From the class list, ask students how they could reduce waste in their home, school, and community. Have students make a chart and record the number of ways they were able to minimize the amount of waste in their lives over the course of day and/or a week. Chart the individual reductions of waste and represent all students’ responses in a class data pictograph or bar graph. Using the class total, make calculations. What would add up to in a month? A year? What would happen if the entire school reduced its waste?  **Conclusion**  Discuss the importance of reducing waste. As a class, develop a plan to reduce waste in the school and in the community using the class findings. Publish the plan in the school newsletter, or have students present it at a school assembly.  **Extension**  Discuss ways students can go into the community and implement their plan. Have students implement some of the strategies identified and share back to the class how it made a difference and how it made them feel.  **Assessment for Student Learning**  Consider multiple ways students can demonstrate their understandings of being respectful of Earth’s resources and how they can be mindful of wastefulness.  **Keywords:** waste; recycle  **Themes:** traditional knowledge; waste  **Teacher Background**[[2]](#endnote-2)  **Walking Together: First Nations, Métis and Inuit Perspectives in Curriculum (Alberta Education)**   * Connection to Land – Exploring Connections – Documents   ([www.learnalberta.ca/content/aswt/#/connection\_to\_land/exploring\_connections/documents](http://www.learnalberta.ca/content/aswt/#/connection_to_land/exploring_connections/documents))   * Traditional Environmental Knowledge – Respecting Wisdom   ([www.learnalberta.ca/content/aswt/#/traditional\_environmental\_knowledge/exploring\_connections/documents](http://www.learnalberta.ca/content/aswt/#/traditional_environmental_knowledge/exploring_connections/documents))  ([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, Ancestors, Time and Place ([www.learnalberta.ca/content/fnmigv/index.html](http://www.learnalberta.ca/content/fnmigv/index.html)) |

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)