

# Ecological Footprint & Food Miles

Grade: 6, 7, 8, 9

Subject: Social Studies, Health, ELA, Science

Time: 7 Lessons

## Critical Issues - Lesson Plan

### “Ecological Footprint; Food Miles; Sustainable Food Production”

**Unit:** Understanding, Skills, and Confidences; Action Planning; Compose and Create; Resources and Wealth; Interactions Within Ecosystems

“Empowering Youth for Change: The benefits of local, organic foods”

**Specific Topic:** Ecology and Sustainable Food

**URL** (\*Note: Lesson procedure can be found here): <http://foodmiles.saskorganic.com/sites/foodmiles.saskorganic.com/resources/MIDDLE-years-UNIT-ONE.pdf>

**Lesson Description:** This unit is about food sustainability in our society. It discusses ideas such as a "food imprint" (how much food we eat, waste, etc). The lesson describes ways to teach how science and health are somewhat synonymous when discussing ideas like food intake and how to properly care for food growth. It requires students to research and evaluate texts based on their value. This unit is the first of a three-unit resource that was produced by the Saskatchewan Organic Directorate (SOD) for middle year's learners to explore the challenges and advantages of local food production, particularly that which is embedded in a holistic view of human connection to and dependence on ecological systems. These units contextualize the benefits of local, organic foods within the larger picture of sustainability principles and practices.

Within unit one there are seven lessons which introduce students to the connections between their food choices and their ecological footprints, and making healthy choices.

**Lessons:**

**1. Ecological Footprint**

Students explore what a footprint represents, what their footprint is, and begin to understand why it is so important to understand an ecological footprint both personally and globally. The categories of foods, goods & services, shelter and mobility are key considerations.

**2. Ecological Footprint**

The students have calculated their footprints and are aware of how many earths would be needed to sustain their way of living. Students will creatively think about what can be done about our ecological footprints.

**3. Tracing the Footprint of Our Food**

This lesson focuses on the footprint of food production, packaging, transportation, and consumption. Students will explore the elements that constitute the ecological footprint for food.

**4. What's the story of imported foods?**

This activity requires students to do research on a variety of fruits and vegetables, becoming more aware of the factors involved in transporting food.

**5. Food Miles: Only One Part of the Picture**

The food that we see in our local grocery stores has often travelled a great distance from field to table. We often see beef in our grocery stores that was raised in Saskatchewan, shipped to Alberta for processing and then shipped back to Saskatchewan for consumption. This impacts the environment and also our communities and economies because the work of processing and the income earned is done elsewhere, minimizing the economic benefits in our communities to the local transportation and retail businesses.

**6. Sustainable Food Production: What's the best choice?** This lesson encourages students to assess and compare industrial agriculture with local organic production, arrive at a tentative conclusion regarding the merits of each regarding sustainability, to corroborate their findings with additional research, and to use their findings to contribute to appropriate changes in their family and community lives.

**7. Canada's Food Guide: Close to Home**

This lesson challenges students to research foods produced in Saskatchewan and build a healthy eating plan for three days using, as much as possible, foods from their local areas. They will then be asked to apply what they have learned to petition for a healthy food policy in their school or other institutions.

**Curriculum Outcomes:**

**Resources & Wealth (RW) - Social Studies  
Interactions within Ecosystems (IE) - Science  
Understanding, Skills, and Confidences (USC) - Health  
Action Planning (AP) - Health  
Compose and Create (CC) - ELA**

**Grade 6**

Outcome - RW6.1: Examine and analyze factors that contribute to quality of life, including material and non-material factors.

Outcome - RW6.2: Contribute to initiating and guiding change in local and global communities regarding environmental, social, and economic sustainability.

**Grade 7**

Outcome - IE7.4: Analyze how ecosystems change in response to natural and human influences, and propose actions to reduce the impact of human behaviour on a specific ecosystem.

Outcome - USC7.5: Evaluate personal food choices and needs by applying accurate and current nutritional knowledge (e.g., content labels).

**Grade 8**

Outcome - RW8.1: Analyze the social and environmental consequences of living in the Canadian mixed market economy based on consumerism.

Outcome - RW8.2: Assess the implications of personal consumer choices.

Outcome - RW8.3: Critique the approaches of Canada and Canadians to environmental stewardship and sustainability.

Outcome - USC8.6: Examine and assess the concept of sustainability from many perspectives, and develop an understanding of its implications for the well-being of self, others, and the environment.

Outcome - AP 8.10: Design, implement, and evaluate three seven-day action plans that establish multiple supports for responsible health action related to family roles and responsibilities, non-curable infections/diseases, violence and abuse, body image, sustainability, and sexual health.

Outcome - CC8.2: Create and present a group inquiry project related to a topic, theme, or issue studied in English language arts.

Outcome - CC8.3: Select and use the appropriate strategies to communicate meaning before (e.g., plan, organize, and sequence ideas to fit purpose, point of view, and format), during (e.g., use and maintain appropriate point of view for audience and purpose), and after (e.g., revise final drafts and presentations to ensure that the format and patterns within that format contribute to the effectiveness of the composition) speaking, writing, and other representing activities.

Outcome - CC8.6: Use oral language to interact purposefully, confidently, and respectfully in a variety of situations including one-to-one, small group, and large group discussions (expressing feelings and viewpoints and contributing to group harmony).

**Grade 9**

Outcome - USC9.5: Evaluate a variety of healthy food policies and plan to participate in the development, revision, and/or implementation of a healthy food policy (e.g., fundraising, feasts, canteen sales, extra-curricular events) in the community (e.g., home, school, arena, youth center).

**Assessment:**

- Provided within lesson.

**Materials:**

- See lesson plan for list of materials (URL).

**Extension Resource:** For further information on Global Citizenship Education (GCE) and additional resources, see **SCIC's Global Citizenship Education Modules**.