

LESSON PLAN

Financial Literacy in Grade 9/10 Social Sciences and Humanities - Family Studies

Social Sciences and Humanities: Food and Nutrition (HFN10/HFN20)

Connections to Financial Literacy

Students explore the economic, financial, environmental and social benefits of purchasing locally produced food. They think critically about the costs of store bought pre-packaged foods compared to the costs of food prepared at home and make relevant connections at a farmers' market. They also discuss the influences of various factors impacting food purchasing decisions such as cost, convenience/availability and quality of food.

Curriculum Expectations

Note: The accompanying video shows this lesson being delivered in a Grade 10 class. The course can also be delivered as a Grade 9 course.

Self and Others

- Complete an assessment of the importance of meeting the food needs of family members

Food Needs of Individuals and Families

- demonstrate creativity in planning, preparing and serving a meal that meets the specifically defined needs and budget of a particular family or individual

Personal and Social Responsibilities

- identify consumer responsibility in the investigation of current food issues

Consumer Awareness

- examine the relationship between consumer awareness and food marketing
- demonstrate an ability to calculate unit prices, decipher “best before” dates, read ingredient lists, and understand how comparatively expensive convenience foods are

Diversity, Interdependence, and Global Connections

- identify food supply and production industries in Canada

Canadian Food Supply and Production

- complete an assessment of the influence of geography on food supply and production

Learning Goals

By the end of this lesson, students will be able to:

- explain some of the environmental and financial impacts of purchasing local foods.
- explain the ways in which consumer awareness can affect food purchasing decisions.
- identify some of the steps in food production.
- make accurate comparisons of the costs of store bought foods and foods prepared at home.

Sample Success Criterion

- I can effectively explain the implications (e.g., environmental, financial, ethical, social and health) of purchasing local foods.

Instructional Components and Context

Readiness

- Students have basic understanding of agriculture issues in Ontario

Terminology

- Savvy consumer
- Yield
- Local Food

Context

In this lesson, students compare store-bought foods to locally grown foods from a farmers' market. In some communities and at some times of the year, it will not be possible to visit or obtain food from a farmers' market. If this is the case, teachers can vary the meals analyzed by the students to reflect foods that are available in the community. For example, in the far north, the discussion might include locally picked berries where available, hunting, fishing and traditional foods.

Materials and Resources

- Apple, cutting board and knife
- Pictures (or cards with words on them) of apples and apple sauce
- **“Quiz, Quiz, Trade” Activity Cards**
- **Meal Analysis Chart, Meal Cards**
- Copies of articles about buying local food such as:
 - <http://thelocavore.ca/>
 - <http://www.niagararegion.ca/government/initiatives/lfap/why-buy-local.aspx>
 - <http://www.theglobeandmail.com/news/national/ontario/ontario-gives-homegrown-food-a-boost/article2124555/>
- **Local Food PMI** printed on Good On One Side (GOOS) paper

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Minds On

Whole Class → Demonstration: The Earth as An Apple

Introduce the concepts of food production and sustainability issues by doing a simulation activity with the earth being represented as an apple. Cut the apple into four quarters and set aside three of the quarters. These represent the seas and oceans of the world. The fourth quarter represents the total land area of the earth.

Slice this land quarter in half, giving two $1/8^{\text{th}}$ world pieces, representing pieces of the earth. Set aside one of the pieces to represent land that people cannot live on, like polar areas, deserts, swamps, very high or rocky mountainous areas. The other $1/8^{\text{th}}$ piece represents land where people live, but cannot necessarily grow the foods needed for life.

Now slice this $1/8^{\text{th}}$ piece into four sections, giving four $1/32^{\text{nd}}$ pieces. Set aside three of these pieces to represent areas that are too rocky, too wet, too cold, too steep, or with soil too poor to produce food. They also include the areas of land that could produce food but are buried under cities, highways, suburban developments, shopping centers and other structures people have built.

This leaves a $1/32^{\text{nd}}$ slice of the earth. Carefully peel this slice. This tiny bit of peeling represents the surface of the earth in which food can grow and on which all human life depends.

From this demonstration, ask students to think about:

- What can you conclude about our food growing capacity?
- What can you conclude about land use, agriculture and geography?
- How do you feel about this?
- Why is it important that we think about the food growing capacity of the earth?

Connections

A₁₀L Assessment for Learning

Students' understanding of the food-growing capacity of the earth and issues regarding our food supply can be assessed from their answers in the whole-group discussion.

Action!

Whole Class → Apples to Apple Sauce

Create an imaginary line in the classroom. Place a sign with the word "Apple" at one end of the line and a sign with the words "Apple Sauce" at the other end of the line. (Images of an apple and apple sauce can also be used.) Give students one minute to think of all of the steps that are involved with getting the apple hanging from a tree to a jar of apple sauce in a grocery store.

Invite a student to identify a step involved in getting apples to apple sauce. The students take a place on the line to represent when in the production process their identified step takes place. Invite other students to identify other steps in the process and to take their place on the line relative to the other students who are already on the line.

As a class or in pairs, students respond to the questions: What are the benefits or drawbacks of eating processed apple sauce rather than a whole apple? Based on this exercise that we've just completed, what are the things to think about with eating processed apple sauce? (Possible responses could include: Even for a relatively unprocessed food, there are a lot of steps involved in getting apple sauce to the store shelf. We need to be aware of the resources that are used to process our food.)

Connections

A₁₀L Assessment for Learning

Students' understanding of food-production processes, their benefits and risks can be assessed in the Apples to Apple Sauce activity.

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Action!

Small Group → Placemat Activity: Consumer Awareness

In small groups, students brainstorm responses to a reflective question to elicit their thoughts and opinions about current food issues and consumer responsibility. Questions include topics such as shopping patterns, use of antibiotics in meat, organic farming, and the impact of buying locally, the availability of local foods in different communities (e.g., urban centres, the far north). In their groups, they share and discuss individual ideas.

As a class, students share ideas and discuss factors that influence decisions to shop in different ways (e.g., time, cost, convenience/availability).

To probe critical thinking, ask guiding questions such as:

- How much does price influence where you and your family shop?
- Do you think supporting local producers or having low cost options is more important?
- Is it possible to find a balance between these two things?
- Is local food more expensive or more affordable?
- What might this depend on?
- When you are grocery shopping with your family do you look for the symbol or a sign that indicates Ontario grown produce or products? Why or why not?
- Is convenience or quality more important to you and your family when making shopping decisions? Why or why not?
- Do you and your family consider factors such as supporting local businesses and food production processes and ethical consumption when making buying decisions? Why or why not?

Individual/ Whole Class → Article Reading “Quiz, Quiz, Trade” Activity

Students select an article about local foods to read.

After students have read the articles, each student receives a card with a question and sample responses or discussion points for the question, related to the articles. Students mingle throughout the classroom, quizzing each other. After sharing their responses, they high five their partner then trade cards and move on to a new partner to discuss another question. Students share information with their partner if their partner is not sure of the answer.

Small Groups → Meal Analysis

In small groups, students analyse the cost, appearance, and environmental impact of a store-bought pre-packaged meal. Each group receives a specific meal to analyse.

Remind students that when considering the cost of the meal, they should think about factors such as the yield – how much does the meal cost per serving?

Students complete the first half of the Meal Analysis Chart in class. The second half of the Meal Analysis Chart is completed on a field trip to a farmers’ market. If a field trip is not possible, students can complete their Meal Analysis Chart on their own time in their groups.

As an extension activity, students could also prepare their home made meals in class with products purchased as a class at the farmers’ market.

Consolidation

Individual → PMI Chart

Students complete a Plus Minus Interesting/Implications graphic organizer as an exit card, consolidating their thinking about what they’ve learned during the class.

Connections

Tips:

If these issues have been discussed in class previously, this activity can serve as review. If these issues have not been discussed previously in class, this activity can be an opportunity for students to surface some of their thinking about food shopping.

For all of the questions, emphasize that there are no correct answers and that the issues are complex. The activity is meant to raise some issues and thereby raise awareness.

Differentiated Instruction

Provide various articles and allow student choice based on interest. Articles can also be differentiated by reading level to support diverse student needs.

A_{as}L Assessment as Learning

Consult with small groups to support them as they complete their meal analysis charts.

Tip:

Encourage students to think of alternative meals that would be reflective of diverse cultures.

Connections

A_{for}L A_{as}L Assessment for/as Learning

Assess students’ PMI charts for their understanding of the financial, economic and environmental impact of purchasing local foods.

“Quiz, Quiz, Trade” Activity Cards

What are the benefits of buying locally-grown Ontario food?

Sample Responses or Discussion Points

- preserves family farms and rural heritage
- money goes directly to the farmer if the food is purchased at a farmers’ market
- local jobs are created or sustained
- stimulates the local economy
- food may be unique to the area

Why might locally grown food taste better?

Sample Responses or Discussion Points

- ripens on the plant rather than in the store, increases flavour
- food may be fresher because it hasn’t been stored or shipped
- more variety might be available with different tastes and flavours

Why is locally grown food healthier?

Sample Responses or Discussion Points

- picked when more ripe – increases nutrient values
- nutrients can be lost when produce travels for long distances
- you could know the farmer and/or how the food is produced (without chemicals, pesticides)

How does buying locally produced food decrease your ecological footprint?

Sample Responses or Discussion Points

- might reduce time for transporting and shipping
- some decrease in carbon dioxide and greenhouse gas emissions
- reduces use of fossil fuels, e.g., gasoline
- packaging for produce and products could be less than store-bought foods

Meal Analysis Chart

Store Bought Pre-packaged Meal		Home Made Meal		
Meal Description:		Meal Description:		
Cost	Appearance	Cost	Appearance	Possible Environmental Impact

Hamburgers for Dinner

Hamburgers
\$9.99 / package of 8



Hamburger Buns
\$3.19 / package of 8



Salad Greens
\$3.97



Stir Fry Dinner

Rice
\$3.49 - package makes
4 cups



Cookies
\$3.99



Vegetables
\$2.47 / package of frozen
vegetables



Pasta and Meat Dinner

Macaroni & Cheese
\$1.62 - package makes
4 servings



Hotdogs
\$3.49



Cinnamon Rolls
\$3.47 / package of 6



LOCAL FOOD PMI
Plus, Minus, and Interesting/Implications

+ Plus	- Minus	I - Interesting/Implications

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+ Plus	- Minus	I - Interesting/Implications