

Consumerism & Quality of Life: Food & Fuel

2nd Edition

As consumers encourage governments and industries to go “green,” many are talking about securing a cleaner future for transport. Infused in the discussion are comments about the “risk of dependence” on other countries for petroleum fuels, and the commitment to climate change awareness and to individual responsibility for carbon footprints.

In response, some biodiesel producers are seeking to include high levels of canola oil as their feedstock because of its mandated quality standards and unique characteristics. These characteristics include:

- High oil content in the canola seed
- Low levels of saturated fat, which improves its performance in cold weather
- Iodine values averaging 114 – meaning that canola is known to reduce wear on engine fuel pumps and injectors.

For farmers this decision does not start a debate on whether canola oil should be used for food versus non-food uses – rather, it impacts their decision on how much canola they should grow to meet the demand of the marketplace. For consumers, the choice to use products that come from canola may involve some questions about how these decisions will influence the available food supply as well as the environmental impact. Ultimately, consumers will choose how they wish to use the canola oil that is made from the crops that are grown in Canada – as they will for the wheat or barley grown for bread, pasta or ethanol!

Canadian canola producers believe that an increase in demand for canola can and will be met by:

- Improvements in technological advances in the yield and oil content of canola varieties
- The expansion of acreage into non-traditional production areas as a result of the development of better-adapted varieties.

This expectation of production increases is supported by experiences in other jurisdictions, including Germany, where increases in feedstocks advanced with the market development of biodiesel, and through experience with yield increases due to adoption of higher yielding, better adapted hybrid varieties in crops like corn and rice.

Yet, we also believe it is essential for Canada’s “future consumers” to understand that the uses of agricultural products for food, fuel and other non-foods are understood from the point of view of consumerism and quality of life. Ultimately, no decision will be 100% “right” or “wrong.” However, decisions need to be made, and individually, we need to accept the consequences of those decisions.

The **Alberta Canola Producers Commission** offers teachers and students this resource as a “support” in coming to terms with choices presented in the context of the Grade 9 Social Studies program.

May it be helpful to you and your students.

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Alberta Canola Producers Commission (ACPC)

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Every effort has been made to acknowledge sources used in this resource. If any have been inadvertently missed, please contact Patricia Shields-Ramsay at InPraxis Group Inc. at 866.925.7163. Corrections will be made in subsequent printings.

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INTRODUCTION & OVERVIEW

Quality of life in today's society is impacted by the increasing complexity of making economic decisions. These decisions are greatly affected by the choices we need to make and will ultimately affect our future. This resource explores the impact that consumers have on decisions made about the production and use of resources, through an agriculturally based case study. As concerns over the sustainability and environmental impact of non-renewable resources rise, society and governments are increasingly looking for alternatives. The use of canola as both an important food crop and a renewable source of energy provides an example of a consumer choice. Students explore perspectives involved in issues relating to food and fuel and are asked to come to their own conclusions as consumers.

A Critical Issues Approach

Issues that are relevant and meaningful to students support a constructivist, inquiry-based approach to learning. Critical issues frame learning around key questions that pose problems that intrigue and interest students, and set a focus for motivated learning. Posed effectively, critical issues ask students to develop and apply critical thinking skills and look at multiple perspectives, consider alternatives and recognize that challenges can often involve many different solutions.

This teaching and learning resource is developed around a critical issues approach and promotes inquiry-based learning and critical thinking. The exploration of issues is framed around inquiry questions that are relevant and meaningful to students, engage them in deliberative research and promote social participation skills.

Curriculum Support

This resource supports Alberta's **Grade 9 Social Studies** program of studies. It addresses selected values and attitudes as well as knowledge and understanding outcomes that relate to the issues involved in this topic. This resource also develops processes and skills, including critical thinking and creative thinking, decision making and problem solving, research and information inquiry, oral, written and visual literacy. A curriculum correlation chart follows. Specific charts are provided with each of the three lesson sequences in this resource, indicating curricular outcomes for each. These lesson sequences include activities that may take **two to five 50-minute class periods, depending on activities selected.**

Consumerism & Quality of Life: Food & Fuel

Grade 9 Social Studies Curriculum Connections Summary

Critical Issue & Inquiries

To what extent do consumer choices and actions influence quality of life?

Consumer Power

How much power do consumers have? (Lesson Sequence One)

Making a Point

How do differing perspectives influence decisions about what to produce and consume? (Lesson Sequence Two)

Sooner or Later

Why does quality of life matter? (Lesson Sequence Three)

Values & Attitudes Outcomes

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

Knowledge & Understanding Outcomes

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- How does marketing impact consumerism? (ER)
- What are the indicators of quality of life? (PADM, ER)
- How does individual consumer behaviour impact quality of life (e.g., *environmental issues*)? (PADM, ER)

Skills & Processes Outcomes

9.5.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- re-evaluate personal opinions to broaden understanding of a topic or an issue
- generate creative ideas and strategies in individual and group activities

9.5.4 demonstrate skills of decision making and problem solving:

- take appropriate action and initiative when required in decision-making and problem-solving scenarios
- participate in and predict outcomes of problem-solving and decision-making scenarios
- propose and apply strategies or options to solve problems and deal with issues
- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making

9.5.7 apply the research process:

- reflect on changes of perspective or opinion based on information gathered and research conducted
- integrate and synthesize concepts to provide an informed point of view on a research question or an issue
- develop a position supported by information gathered during research
- draw conclusions based upon research and evidence
- determine how information serves a variety of purposes and that the accuracy or relevance may need verification
- organize and synthesize researched information
- formulate new questions as research progresses
- practise responsible and ethical use of information and technology
- include and organize references as part of research
- > create a plan for an inquiry that includes consideration of time management
- > demonstrate the advanced search skills necessary to limit the number of hits desired for online and offline databases; for example, the use of “and” or “or” between search topics and the choice of appropriate search engines for the topic
- > develop a process to manage volumes of information that can be made available through electronic sources
- > evaluate the relevance of electronically accessed information to a particular topic

Knowledge & Understanding Outcomes

- How does consumerism provide opportunities for and limitations on impacting quality of life? (PADM, ER)
- How is consumerism used as a power of a collective (e.g., *boycotts*)? (ER, PADM, C)

Skills & Processes Outcomes

- make connections among related, organized data, and assemble various pieces into a unified message
- refine searches to limit sources to a manageable number
- analyze and synthesize information to create a product

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- use skills of informal debate to persuasively express differing viewpoints regarding an issue
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine techniques used to enhance the authority and authenticity of media messages
- examine the values, lifestyles and points of view represented in a media message
- analyze the impact of television, Internet, radio and print media on a particular current affairs issue

THE CRITICAL ISSUE & INQUIRY PROCESS

To what extent do consumer choices and actions influence quality of life?

Related Inquiries

How much power do consumers have? (Lesson Sequence One)

In Lesson Sequence One, students consider and reflect on the role of the consumer and the influence of choices that consumers make. They also explore the influence that consumers have, both individually and collectively, on production decisions. Students investigate how these choices affect current issues, introducing the example of recurring debates over the use of agricultural resources as food and fuel. This debate involves the production of inedible products that are now being made from what have traditionally been considered food ingredients.

How do differing perspectives influence decisions about what to produce and consume? (Lesson Sequence Two)

In Lesson Sequence Two, students explore consumer choices using the example of canola crops for food and fuel. They explore perspectives that individuals and groups bring to the issue of using traditional food crops as alternative energy sources. Students reflect on the importance of considering how different perspectives can influence and affect consumer and production choices.

Why does quality of life matter? (Lesson Sequence Three)

In Lesson Sequence Three, students explore and predict how different perspectives and actions can affect quality of life in the future. Students are encouraged to consider where they stand on the critical issue: *To what extent do consumer choices and actions influence quality of life?*

In their inquiry into this critical issue, students explore the impact of consumer choices on the economy, environment and society, introducing issues relating to the production and consumption of food and fuel as a case study. Students examine the power and decision-making ability that consumers have regarding choices made within the economic sector of society. They are introduced to different perspectives that have influenced this issue – consumers, canola and petroleum producers, government and environmental groups. Students build an understanding of the complexity of economic decision-making and the necessity to explore all perspectives involved in an issue before taking a stance.

This Critical Issues Guide can be integrated with the Critical Issues Guide Biotechnology and Biological Diversity: A Question of Balance for Grade 9 Science. It can also be integrated with the Grade 9 lesson sequence in the Critical Issues Guide Body Image and Food Choices: A Question of Influence for Grade 9 Health. Discuss the possibility of teaching an integrated unit with the Science and Health teachers in your school.

The Process

This resource is structured around inquiry questions that form the basis for exploring the critical issue. Each inquiry question provides a focus for a lesson sequence and for deliberative research. Each lesson sequence also contains “I can...” statements that set a context for research and inquiry, provide criteria for assessment and help students focus their learning. These statements can be shared with students at the beginning of each lesson sequence.

Each of the lesson sequences in this resource is structured around the following features:

- Each lesson sequence provides activities that introduce and explore topics in **two to five 50-minute** class periods, depending on activities selected. Choices can be made by both the teacher and students about the scope and extent of research and assignments associated with the lesson sequence. Depending on the time available, modify the number of class periods for the lesson sequence.
- Additional activity suggestions provide opportunities to extend the lesson sequence and further develop research and inquiry skills.
- An overview of instructional strategies is provided with each activity.
- Rubrics can be used to assess many of the products that students create in the lesson sequences. Sample rubrics and criteria statements are provided at the end of this section of the resource, as well as a template for creating customized rubrics.
- Student products may be displayed and shared with other classrooms and students, the school, parents and the community. If appropriate, discuss ways that projects may be completed in cross-curricular contexts with other subject area teachers.

Each of the lesson sequences is self-contained and provides the instructional process, activity ideas, Briefing Notes and other handouts. **Therefore, teachers should select those activities in the lesson sequences that they believe will be most effective in supporting their students’ learning in the Grade 9 Social Studies program.**

Briefing Notes

Each of the lesson sequences centres on a topic introduced through Briefing Notes. Each Briefing Notes handout opens with *Predict* questions that emphasize critical thinking and connect to students’ prior knowledge, understandings, attitudes and assumptions.

The Briefing Notes also provide questions, activities and internet website links that encourage research and the exploration of multiple viewpoints and opinions on issues relating to agriculture, consumerism and quality of life.

The Briefing Notes format provides an opportunity for students to take on a variety of research roles. Each lesson sequence contributes to research that students gather to explore the critical issue. Students should be encouraged to revisit, discuss and reflect on the critical issue when the lesson sequences have been completed.

At a Glance

The following chart provides an overview of each lesson sequence, inquiry focus, instructional strategies, curriculum connections and assessment focus in this resource.

Lesson Sequence One

Consumer Power

In Lesson Sequence One, students consider and reflect on the role of the consumer and the influence of choices that consumers make. They also explore the influence that consumers have, both individually and collectively, on production decisions. Students investigate how these choices affect current issues, introducing the example of recurring debates over the use of agricultural resources as food and fuel. This debate involves the production of inedible products that are now being made from what have traditionally been considered food ingredients.

Inquiry Focus and Key Concepts

How much power do consumers have?

- Consumer
- Mixed economy
- Market economy
- Opportunity cost
- Individual
- Collective

Instructional Strategies

- Media Search
- Cause and Effect Chart
- KWHL Chart
- Sphere of Influence

Curriculum Connections

- 9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)**
- 9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:**
- What is the role of the consumer in market and mixed economies? (ER)
 - To what extent do consumer actions reflect individual and collective identity? (ER, I)
- 9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:**
- What are the indicators of quality of life? (PADM, ER)
 - How does individual consumer behaviour impact quality of life (*e.g., environmental issues*)? (PADM, ER)
- 9.5.1 develop skills of critical thinking and creative thinking:**
- evaluate, critically, ideas, information and positions from multiple perspectives
 - demonstrate the ability to analyze current affairs from multiple perspectives
 - re-evaluate personal opinions to broaden understanding of a topic or an issue
 - generate creative ideas and strategies in individual and group activities
- 9.5.4. demonstrate skills of decision making and problem solving:**
- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making
- 9.5.7 apply the research process:**
- draw conclusions based upon research and evidence
 - organize and synthesize researched information
 - formulate new questions as research progresses
 - evaluate the relevance of electronically accessed information to a particular topic
 - make connections among related, organized data, and assemble various pieces into a unified message

Assessment Focus (I Can... Statements)

- **I can** identify roles that consumers have.
- **I can** describe and give examples of the impact of consumer choices on the economy and the environment.

Students should understand some of the roles that consumers have in market and mixed economies and the impact their choices can have on individual and collective quality of life.

Curriculum Connections (Lesson Sequence One)

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message

Lesson Sequence Two

Making a Point

In Lesson Sequence Two, students explore consumer choices using the example of food and fuel produced from canola crops. They explore perspectives that individuals and groups bring to the use of traditional food crops as alternative energy sources. Students reflect on ways that different perspectives can influence and affect consumer and production choices.

Inquiry Focus and Key Concepts

How do differing perspectives influence decisions about what to produce and consume?

- Quality of life
- Consumerism
- Consumption
- Production

Instructional Strategies

- Board Share
- File Folder Research
- Press Conference
- Public Service Announcement

Curriculum Connections

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- How does marketing impact consumerism? (ER)
- How does consumerism provide opportunities for and limitations on impacting quality of life? (PADM, ER)

9.5.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- re-evaluate personal opinions to broaden understanding of a topic or an issue
- generate creative ideas and strategies in individual and group activities

9.5.4 demonstrate skills of decision making and problem solving:

- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making

Assessment Focus (I Can... Statements)

- **I can** identify and compare conflicting perspectives and opinions on issues involving consumerism and quality of life.
- **I can** assess the influence that consumer choices have on the production of consumer goods.

Students should understand that consumer choices have opportunity costs and that differing perspectives influence decisions about the production and consumption of consumer goods and services and ultimately affect quality of life.

Curriculum Connections (Lesson Sequence Two)

9.5.7 apply the research process:

- integrate and synthesize concepts to provide an informed point of view on a research question or an issue
- develop a position supported by information gathered during research
- draw conclusions based upon research and evidence
- organize and synthesize researched information
- formulate new questions as research progresses
- evaluate the relevance of electronically accessed information to a particular topic
- make connections among related, organized data, and assemble various pieces into a unified message

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message

Lesson Sequence Three

Sooner or Later

In Lesson Sequence Three, students explore and predict changing consumer trends may affect quality of life in the future. Students are encouraged to consider where they stand on the critical issue: *To what extent do consumer choices and actions influence quality of life?*

Inquiry Focus and Key Concepts

Why does quality of life matter?

- Quality of life
- Economic effects
- Environmental effects

Instructional Strategies

- Class Discussion
- Comparison Chart
- Futures Wheel
- Marketing Plan

Curriculum Connections

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- How does marketing impact consumerism? (ER)
- How does consumerism provide opportunities for and limitations on impacting quality of life? (PADM, ER)
- How is consumerism used as a power of a collective (e.g., boycotts)? (ER, PADM, C)

Assessment Focus (I Can... Statements)

- **I can** analyze how perspectives and opinions on issues involving consumerism and quality of life might impact the future.

Students should understand and appreciate perspectives that influence the consumer, the economy, government actions and quality of life.

Curriculum Connections (Lesson Sequence Three)

9.5.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- re-evaluate personal opinions to broaden understanding of a topic or an issue
- generate creative ideas and strategies in individual and group activities

9.5.4. demonstrate skills of decision making and problem solving:

- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making

9.5.7 apply the research process:

- integrate and synthesize concepts to provide an informed point of view on a research question or an issue
- develop a position supported by information gathered during research
- draw conclusions based upon research and evidence
- organize and synthesize researched information
- formulate new questions as research progresses
- evaluate the relevance of electronically accessed information to a particular topic
- make connections among related, organized data, and assemble various pieces into a unified message

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message

ASSESSMENT TOOLS

The assessment criteria statements that follow can be developed into rubrics and applied to many of the products that students develop in the activities in this resource. The criteria statements should be discussed, adapted and developed with students. A template is provided for the creation of customized rubrics.

VISUAL ORGANIZERS

Excellent 4	<ul style="list-style-type: none">• Demonstrates a thorough understanding of the topic, its relationships and related concepts and ideas• Provides descriptive labels and organizers; provides information that reflects the topic• Makes appropriate links• Uses the visual organizer to make connections and draw relationships
Proficient 3	<ul style="list-style-type: none">• Demonstrates an adequate understanding of the topic and concepts• Provides appropriate labels and organizers• Provides information that relates to the topic• Attempts to make links• Uses the visual organizer appropriately for topic and concepts
Acceptable 2	<ul style="list-style-type: none">• Identifies concepts and ideas that relate to the topic• Provides labels and organizers• Includes information that relates to the topic• Uses the format of the visual organizer
Limited 1	<ul style="list-style-type: none">• Provides limited information related to the topic• Uses parts of the visual organizer to present information

GROUP ACTIVITIES

Excellent 4	<ul style="list-style-type: none"> • Demonstrates clear understanding of the group task and their individual contribution to the group • Listens to group members • Expresses original opinions and ideas • Contributes meaningful information and research • Works with the group to fulfill group responsibilities
Proficient 3	<ul style="list-style-type: none"> • Articulates understanding of the group task and the role they play within the group • Listens to group members • Contributes ideas and information • Fulfills individual responsibilities for the group
Acceptable 2	<ul style="list-style-type: none"> • Describes the group task • Describes individual role within the group setting • Listens to group members • Contributes information to group task
Limited 1	<ul style="list-style-type: none"> • Describes individual role within the group setting • Listens to others in the group • Contributes limited ideas

RESEARCH

Excellent 4	<ul style="list-style-type: none"> • Develops a strategy for conducting research • Develops and identifies research and inquiry questions • Analyzes and assesses sources of information selected for the research task • Records information using an appropriate format • Applies research to inquiry question • Makes effective use of research time
Proficient 3	<ul style="list-style-type: none"> • Identifies a strategy for conducting research • Identifies research and inquiry questions • Selects and assesses sources of information • Records information using an appropriate format • Identifies links between research collected and inquiry question • Makes effective use of research time
Acceptable 2	<ul style="list-style-type: none"> • Uses a previously identified strategy for conducting research • Records research and inquiry questions • Selects and reads sources of information • Records information using an appropriate format • Uses information from sources to answer inquiry questions
Limited 1	<ul style="list-style-type: none"> • Selects and reads sources of information • Records identified research and inquiry questions • Records information using an identified format • Identifies information from sources that relates to inquiry questions

PROJECTS

Excellent 4	<ul style="list-style-type: none">• Develops a project planning strategy and process• Identifies goals and purpose of project• Demonstrates understanding of topics and concepts represented in the project• Selects an appropriate method of constructing and creating project• Uses research and information gathered appropriately and effectively in the project• Demonstrates ability to summarize and synthesize information within the project• Displays learning with pride in final presentation of project
Proficient 3	<ul style="list-style-type: none">• Identifies a project planning strategy and process• Identifies purpose of project• Selects information relating to topics and concepts under study for the project• Selects an appropriate method of constructing and creating the project• Uses research and information gathered appropriately and effectively in the project• Demonstrates ability to summarize information within the project• Displays learning appropriately in final presentation of project
Acceptable 2	<ul style="list-style-type: none">• Uses a previously identified project planning strategy and process• Selects information relating to topics and concepts under study for the project• Selects a method for constructing and creating the project• Uses research and information gathered throughout the project• Displays learning adequately in final presentation of project
Limited 1	<ul style="list-style-type: none">• Selects information relating to topics and concepts under study for the project• Constructs and creates the project using an identified approach• Uses information gathered for the project

RUBRIC

Excellent 4	
Proficient 3	
Acceptable 2	
Limited 1	
No work completed 0	

LESSON SEQUENCE ONE: CONSUMER POWER

Overview

In Lesson Sequence One, students consider and reflect on the role of the consumer and the influence of choices that consumers make. They also explore the influence that consumers have, both individually and collectively, on production decisions. Students investigate how these choices affect current issues, introducing the example of the recurring debate over the use of agricultural resources as food and fuel. This debate involves the production of inedible products that are now being made from what have traditionally been considered food ingredients.

Rationale

Students should understand some of the roles that consumers have in market and mixed economies and the impact their choices can have on individual and collective quality of life.

Presenting students with “I can...” statements can help focus their learning and provide a context for assessment with this lesson sequence’s activities.

Inquiry

How much power do consumers have?

Key Concepts

Consumer **Mixed economy** **Market economy**
Opportunity cost **Individual** **Collective**

Preparation

Suggested Time: 2 to 4 50-minute class periods

The following handouts, materials and resources are used in this lesson sequence:

- Handouts
 - Student Resource 1A: A Matter of Choice
 - Briefing Notes 1B: The Roles and Power of Consumers
 - Student Resource 1C: KWHL Chart
 - Student Resource 1D: Sphere of Influence
- Chart paper
- Local media sources: newspapers and magazines (*Ask students to bring copies of current newspapers from home to establish a classroom collection.*)
- Index cards
- Internet access and interactive whiteboard to display and share website links

“I CAN”

Lesson Sequence One encourages students to demonstrate their learning by developing understandings such as the following:

- **I can** identify roles that consumers have.
- **I can** describe and give examples of the impact of consumer choices on the economy and the environment.

Lesson Sequence One

Grade 9 Social Studies Curriculum Connections

Inquiry

Consumer Power

How much power do consumers have? (Lesson Sequence One)

Values & Attitudes Outcomes

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

Knowledge & Understanding Outcomes

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- What are the indicators of quality of life? (PADM, ER)
- How does individual consumer behaviour impact quality of life (e.g., *environmental issues*)? (PADM, ER)

Skills & Processes Outcomes

9.5.1 develop skills of critical thinking and creative thinking:

- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- re-evaluate personal opinions to broaden understanding of a topic or an issue
- generate creative ideas and strategies in individual and group activities

9.5.4 demonstrate skills of decision making and problem solving:

- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making

9.5.7 apply the research process:

- draw conclusions based upon research and evidence
- organize and synthesize researched information
- formulate new questions as research progresses
- evaluate the relevance of electronically accessed information to a particular topic
- make connections among related, organized data, and assemble various pieces into a unified message

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message

Lesson Sequence One Teaching and Learning Strategies

How much power do consumers have?



Introductory Activity

Students begin with a media search activity in which they discuss what they know and understand about market and mixed economies and the role of the consumer in each. They also consider influences on the choices they make personally as consumers.

Instructional Strategy: Media Search

A media search activity asks students to find examples from current and local media sources. Visual representations and compilations of student research provide an opportunity to explore various viewpoints and opinions about a particular topic. A collage provides an alternate method of collecting and organizing research. A collage should be created around a particular topic or research question. Students should not only collect and organize information in their collages, but should also examine and analyze the collage. Ask them to identify what they see in their collage, what patterns they recognize, what opposing or conflicting views are represented, and where the biases may exist in the information they have included.

PROCESS

1. In a whole class discussion, review the concepts of market and mixed economies. Ask students to revisit their understandings of these concepts, listing key terms associated with them on the board.
2. What is the range of consumer products and services that are available in today's society? Provide each student with **Student Resource 1A: A Matter of Choice**. Have pairs select an industry from the handout on which to focus, or assign an industry to each pair randomly. Discuss the concept of consumer choices. *(Encourage students to consider how influences such as environmental concerns, economic conditions and limitations, advertising, values and beliefs and local conditions or issues can make consumer choices complex.)*
3. Ask students to work with a partner and use a copy of a local newspaper. Students can be asked to bring copies of current newspapers from home in advance of this activity or to search for and use internet sites.
4. Invite each pair to conduct a media search for articles, advertisements or features that provide examples of consumer products and choices related to the industry they have selected or been assigned. Provide students with a 20 to 30 minute time limit in which to complete their search.

The student textbook will explore these concepts in more depth and detail. Students can be asked to review the concepts using textbook definitions.

In a **market economy**, individuals, including individual consumers and businesses, make decisions about what they will produce and purchase. Anyone – an individual or company – can decide to produce, supply, sell and buy goods and services. These decisions are influenced by competition, supply and demand. In a market economy, there is little or no intervention from the government.

In a **mixed economy**, individuals can make the same decisions about producing, supplying, selling and buying goods and services. They are influenced by competition, supply and demand. However, the economy is also influenced by economic policies established by the government. The government in a mixed economy has a significant role and can own resources and public property. It can respond to consumer concerns by establishing laws or regulations about issues such as product safety, environmental hazards or protection, health risks, fair practices or manufacturing processes.



DIFFERENTIATE

Students can be grouped according to their interest in each of the topic areas on Student Resource 1A.

Students can alternatively be assigned topics randomly with a number of methods:

- Use playing cards that correspond to the topic numbers and randomly hand them out to assign groups or pairs to a topic.
- Number each pair randomly to match them to each topic.
- Use a spinner and numbered wheel to provide each pair or group with the opportunity to select a topic in the order in which their number is selected.

Provide each pair with the option of displaying their media items on a poster collage, a presentation board, using the inside and outside covers of a file folder or in a pizza box.

5. Use the media search displays to explore the inquiry for this learning sequence – *How much power do consumers have?* – with questions such as the following:
 - How could you compare the range of choices that consumers have in different industries? Are there similarities or differences between each industry?
 - Do you think having many different choices affects the ways that consumers make decisions? Why? How? (*Students can be asked to consider how choices can be affected by consumer concerns over issues such as organic food production, locally made products, "green" products, government or private goods and services or ethical business practices.*)
 - How do you think this range of product choices influences the ways individuals perceive their quality of life?
 - What are advantages to having this range of product choices? What disadvantages might there be?



Briefing Notes Activity

Students read and discuss the Briefing Notes with a partner. They focus on the role of the consumer and influences on consumer choices, behaviours and patterns. They then explore the impact that consumer choices can have on production and decision-making.

Instructional Strategy: Cause and Effect Chart

Reading for meaning and summarizing main points by using a visual organizer, such as the cause and effect chart used in this activity, requires students to synthesize information, critically evaluate relationships and make connections to their prior knowledge and understandings. Clustering related ideas and concepts encourages students to organize information and conclusions.

PROCESS

1. Provide each student with a copy of **Briefing Notes 1B: The Roles and Power of Consumers**. Work with students to discuss or respond in writing to the *Predict* questions at the beginning of the handout.
2. Ask students to work with a partner or small group to read the Briefing Notes and complete the cause and effect chart. Invite them to respond to the final set of questions in the handout as a class:
 - Why do you think consumers are influenced both individually and collectively? What is an example of an individual or collective influence? (*Encourage students to first consider the types of factors that influence individual decisions, such as ways of life, values or financial circumstances. Then discuss the types of influences that affect consumers collectively, such as current fads, popular culture, peer pressure and advertising.*)
 - What are two examples of the issues associated with consumer products available in our society today? (*Students may bring up issues such as product safety, environmental impact, emphasis on material acquisitions, using up limited resources.*)

- How could consumers act individually on one of these issues? How could they act collectively?
 - What difference do you think it makes if a consumer acts individually? If consumers act collectively? Why?
3. Invite each small group to share their perspectives with another group. Ask for volunteers to lead a class discussion. Provide each group with a question card that they are responsible for leading the discussion with. Prepare question cards by writing questions such as the following on index cards:
- Do you think the range of choices available to consumers provides benefits or causes challenges? Why do you think this?
 - Some people believe that one of the benefits associated with consumerism is freedom of choice – people should have the ability to choose what they purchase and what is necessary for them to have a good quality of life. Do you agree with this perspective? Why or why not?
 - Some believe that consumerism results in inequality and influences people to make choices about things that have harmful effects or that are not necessary for a good quality of life. Do you agree with this perspective? Why or why not?
 - The use of renewable resources to replace non-renewable resource use is a debate that is currently underway in our society. What could the opportunities and challenges of these types of choices involve?



4. Ask students to reflect on what they have learned from this activity by considering the following questions:
- What helped you learn about consumer choices and quality of life in this activity? How do you learn best about new ideas?
 - What criteria might you apply to the consumer choices that you make?



Closing Activity

Students complete a KWHL chart that focuses on the issue of consumer choices and influences related to agricultural products.



DIFFERENTIATE

Providing the KWHL chart at this point in the lesson provides students with the opportunity to reflect on what they have learned from the Briefing Notes as well as identify questions they have for further research. The KWHL chart can also be used to identify the different interests and learning supports that individual students have.

To complete the KWHL chart, provide students with the following choices:

- Completing the chart on their own
- Completing the chart in a small group
- Working with you to complete the chart.

Instructional Strategy: KWHL Chart

Group discussion, analysis and synthesis of information encourage students to draw conclusions and ask questions that lead to further research. Using a visual organizer such as a KWHL chart, students link their prior knowledge and understandings to ideas for further research.

PROCESS

1. Review the critical issue with students by writing the issue question on the board: *To what extent do consumer choices and actions influence quality of life?* Ask students to reflect on the extent of consumer influence in today's society.
2. Provide each student with **Student Resource 1C: KWHL Chart**. Complete the chart with another student and discuss ideas they have that are similar and different.
3. Ask students to share their perspectives, responses and ideas with the whole class. Use the charts to brainstorm some examples of conflicts, controversies or dilemmas that result from choices about how to use the resources of our society.
4. Introduce the example of choices about agricultural resources. Should society continue to increase the use of agricultural resources that have traditionally been used for food to create renewable energy sources? Should society look more closely at the impact of agricultural products for food, non-food and fuel on the environment?



Extension Activity

Students work individually to create a sphere of influence chart, reflecting on how they make decisions as consumers and the extent of their personal influence as consumers.

Instructional Strategy: Sphere of Influence

Graphic organizers provide students with structured strategies for representing and organizing their understandings and knowledge. A graphic organizer such as a sphere of influence is an effective organizer for students to explore how they connect personally to a topic, concept or question. The sphere of influence provides an opportunity for students to analyze and reflect on different levels of information and connections, starting with themselves in the centre.

PROCESS

1. Invite students to consider what influences them personally as consumers. Have them jot ideas about what they believe are the strongest influences on their choices as consumers. *(Students may be encouraged to consider factors such as advertising, family, their own values, peer pressures, convenience, interests, needs, etc.)*
2. Ask students to create a sphere of influence graphic organizer in **Student Resource 1D: Sphere of Influence** to explore the factors that influence their choices to use and purchase consumer products. Start with themselves in the centre of the circles, and then describe the factors that influence their consumer purchases. Place the factors that have the most influence in the inside circles and those with the least influence in the outside circles.
3. Invite students to compare their sphere of influence with a partner or small group.

Statistics Canada, accessed at www.statcan.gc.ca provides information on consumer prices and trends on their website and in publications. Search for the "consumer price index" and look for tables on different goods. Check *Spending Patterns in Canada* at www.statcan.gc.ca/pub/62-202-x/2008000/part-partie1-eng.htm. What examples of consumer goods and services can you identify from these publications?



A Matter of Choice

There are a multitude of choices in our society. Items that you choose to purchase or use are **consumer goods and services**. Consumer goods originate from the activities of primary industries and are manufactured or produced by secondary industries. The service industry includes a variety of activities that are provided to consumers, ranging from financial to leisure to tourism.

Which consumer goods and services are related to the industries listed below? Select **one** of these industries for a media search. Find at least five examples of advertisements or articles in a current newspaper that represent the consumer goods and services that come from this industry.

- Agriculture** (food products, clothing)
- Forestry** (paper, lumber)
- Fishing** (food products, nutritional supplements)
- Mining, Oil and Gas** (fuel products)
- Manufacturing and Construction** (houses, clothing)
- Communications** (telephone, internet services)
- Transportation** (cars, bus service)
- Personal and Financial Services** (banking services, counselling)
- Food Industry** (processed foods, processing equipment)
- Entertainment** (movies, music downloads)
- Tourism** (travel agencies, bed and breakfasts)
- Other?**

The Roles and Power of Consumers

Predict

What types of daily choices do you make as a consumer? [*Think about the consumer goods and services you use every day.*]

What do you think has the most influence on your choices about consumer goods and services?

Being a consumer

"Don't pay a cent! Lowest prices! Instant rebates! Scratch and save! Buy one, get one free! Enter the portal of the new economy! Every day, Canadian consumers are bombarded by internet ad banners, television commercials, radio jingles, direct mail and newspaper flyers promoting everything from luxury automobiles to baby shampoo."

Source:

"Trade." *Canada Year Book* (2005): Statistics Canada.

What do you do when you wake up in the morning? More than likely, the things you do involve choices you are making, or have made, as a consumer. Some of these choices may seem automatic – using a toothbrush and toothpaste, soap and shampoo. Other choices may involve more consideration – what you will have for breakfast or what clothes to wear.

These choices, and many others, combine with the choices that individuals make all over the country and the world to affect ways of life of individuals and societies. These choices form patterns of **consumer behaviours** that influence the decisions that producers make about the goods and services they provide.

The cost of consumer choices

Every choice that a consumer makes has a cost or an effect associated with it. For example:

- If people choose to use forest resources to build houses or roads, then those forest areas cannot be conserved or used for recreation.
- If a water source is used to grow crops, then it cannot be used to supply drinking water.
- If oil is used for fuel, it has the effect of creating greenhouse gas.

The use of resources to supply consumer demands is all about making choices. Once these choices are made, the alternatives cannot be applied or used. The cost of these choices is what is given up. This is called the **opportunity cost**, and every good or service has one.



Individual consumers make choices in much the same way. Making a choice to purchase one item with a limited budget means that budget is gone and cannot be used for something else. Every purchase has an opportunity cost – the items that are given up when something is purchased.

"Households and consumers use a variety of service providers to meet their needs, ranging from book and newspaper publishers, to hotels and restaurants, to real estate agents and funeral homes. Service providers for businesses include advertising agencies, lawyers and accountants. Service industries have grown more quickly than goods-producing industries in recent years. Service industries represented 71.8 percent of the economy in 2010, up from 68.9 percent in 2006 and 66.1 percent in 2000. The GDP of service industries for 2010 was \$890 billion, a 31.2 percent increase from 2000.

In 2010, 78.1 percent of working Canadians – 13.3 million people – worked in services, an increase from the 10.9 million Canadians who worked in service industries in 2000.

The choices that consumers make – to purchase certain goods and services or to live in certain ways – affect their well being or quality of life. These choices also have an effect on the well being of society as a whole as well as on the environment. Why do consumers make the choices they do? Do you think consumers really have the ability to make any choice they want about what they purchase?

Consumer choices can be influenced by a variety of pressures, beyond the cost of purchasing consumer goods and services. For example:

- Some believe that consumers are strongly influenced by pressures such as what society views as "right" or "wrong" or by popular trends and brands.
- Many believe that consumers are also influenced by current issues and concerns that receive a lot of attention – such as environmental issues, safety and security or health and well being.
- Some think that consumers need to pay more attention to the practices that producers use when they manufacture goods or provide services. They believe that consumers need to apply ethical decision-making.

What do **you** think has the strongest influence on **your own** consumer choices?

Source:

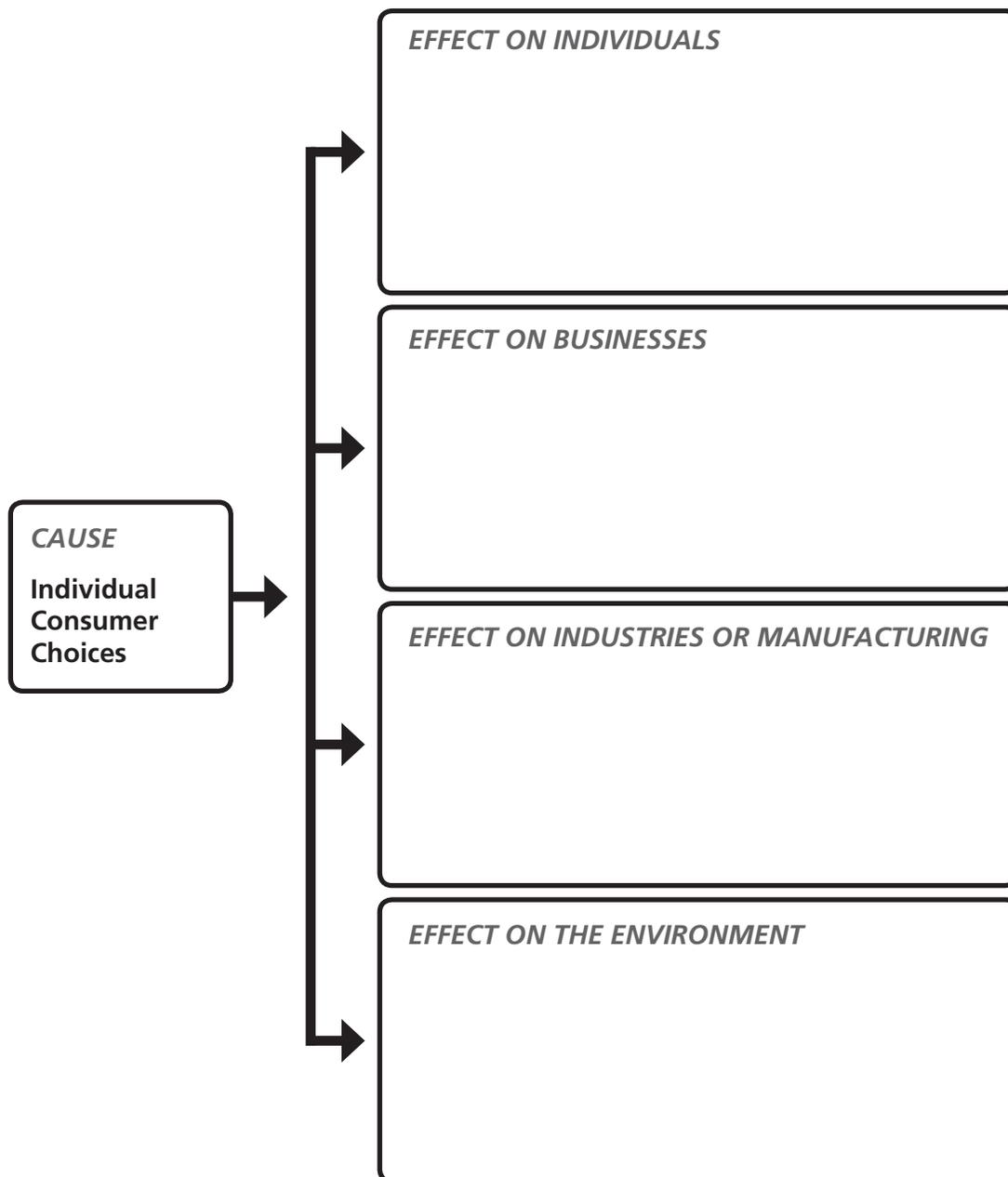
"Business, consumer and property services." Canada Year Book (2011): Statistics Canada.

www.statcan.gc.ca/pub/11-402-x/2011000/pdf/busconprop-entconprop-eng.pdf

EXPLORE

All of the consumer goods and services that you use have an opportunity cost. What is the opportunity cost of a consumer choice you have made lately?

What effects do you think individual consumer choices have on other individuals, businesses, industries, manufacturing or the environment? Identify what you think these effects are in the cause and effect chart below.



In a **market economy**, individuals, including individual consumers and businesses, make decisions about what they will produce and purchase. Anyone – an individual or company – can decide to produce, supply, sell and buy goods and services. These decisions are influenced by competition, supply and demand. In a market economy, there is little or no intervention from the government.

In a **mixed economy**, individuals can make the same decisions about producing, supplying, selling and buying goods and services. They are influenced by competition, supply and demand. However, the economy is also influenced by economic policies established by the government. The government in a mixed economy has a significant role and can own resources and public property. It can respond to consumer concerns by establishing laws or regulations about issues such as product safety, environmental hazards or protection, health risks, fair practices or manufacturing processes.

Consumer influence

Consumers influence the ways that resources are used in both market and mixed economies. However, they also have differing ideas about what decision is the best choice. Individual consumers can have different ideas about what has the most impact on a good quality of life. The choices that consumers make often reflect their values – what they believe to be most important.

In addition to making choices about what products to support and buy, many consumers bring their ways of life, attitudes and opinions into their decision-making. Some consumers may choose to buy consumer goods and services that are environmentally friendly. Some may have to choose goods and services that fit within limited budgets. Some may choose goods and services that are produced in certain places and avoid those produced in other places.

Although these are individual decisions, if many consumers act together, these decisions can become consumer trends that have a strong impact on producers. This type of influence can be called **collective** behaviour. Collective behaviours can influence consumers to purchase or avoid consumer goods and services.



Seeking a good quality of life

What are the factors that influence the way you see your quality of life? The choices that individuals make often reflect what they see as important to their ways of life. For some, these choices involve consumer goods. The purchase and use of consumer goods is called **consumerism**. Some describe an emphasis on the importance of consumer goods and services as **materialism**.

For others, quality of life means much more than “things.” Some believe that materialism can have negative effects on quality of life. Others believe that consumer choices should be based on informed and ethical decisions about what to purchase and use.

Some believe that if many consumers demand that more environmentally friendly materials and manufacturing processes be used to make consumer goods, then producers will have to adjust to these demands.

Canola is one example of a renewable resource that is being pulled in many different ways. This “pull” results in many questions, such as:

- Should canola be used for more than a food source? What would the effects of this decision be?
- Should canola be developed as a renewable energy source?
- What challenges and opportunities could there be if canola is developed for multiple uses?
- What could the effects of increased canola production be on the environment?

What is the best choice for the well being of individuals and society? You will be invited to explore this issue as a “case in point” about the extent to which consumer values and actions can affect decisions that consumers, producers and the government must make in a mixed economy.

EXPLORE

**How do you think consumers are influenced both individually and collectively?
What is an example of an individual or collective influence?**

Diverse points of view are reflected in the ways North American society is choosing to obtain, use, develop, grow and process its natural resources.

- *Rapidly growing urban areas are raising questions about the sustainability of our forest resources.*
- *Increasing populations are causing concerns about endangering fish and wildlife.*
- *Concerns and debates about climate change are affecting decisions about oil and petroleum resources as well as obtaining and producing agricultural products.*

What are two examples of the issues associated with consumer products available in our society today?

How could consumers act individually on one of these issues? How could they act collectively?

What difference do you think it makes if a consumer acts individually? If consumers act collectively? Why?

KWHL Chart

To what extent do consumer choices and actions influence quality of life?

Consumers make choices and decisions based on individual preferences, values and ways of life. However, individual consumer choices are part of collective consumer behaviours and patterns. These patterns influence the choices that producers make about what goods and services to provide.

What I Know	
What I Want to Know More About	
How I Will Find This Out	
What I Learned	

DEFINING TERMS

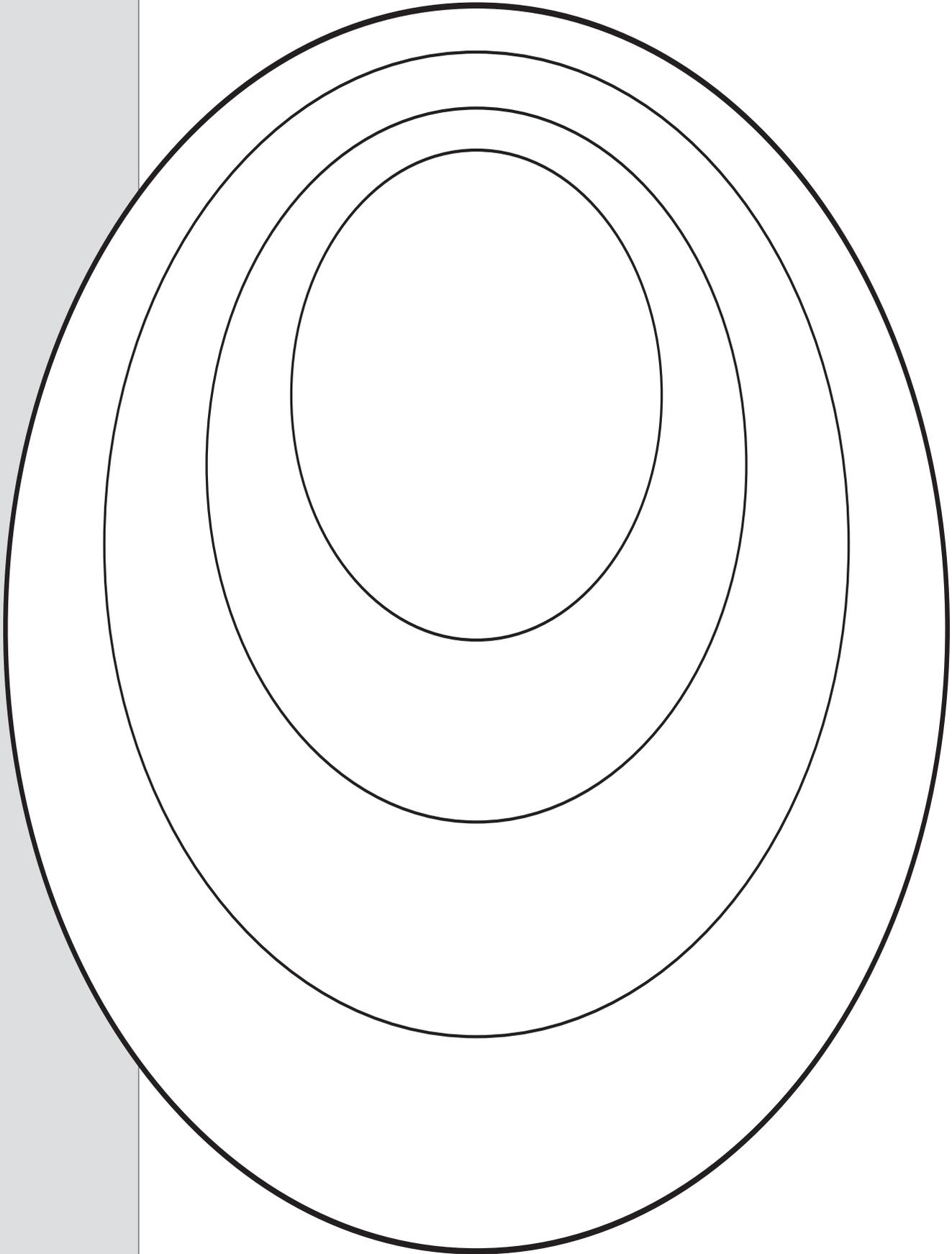
Write your definition for each term:

Consumer

Producer

Quality of life

Sphere of Influence



LESSON SEQUENCE TWO: MAKING A POINT

Overview

In Lesson Sequence Two, students explore consumer choices using the example of food and fuel produced from canola crops. They explore perspectives that individuals and groups bring to the use of traditional food crops as alternative energy sources. Students reflect on ways that different perspectives can influence and affect consumer and production choices.

Rationale

Students should understand that consumer choices have opportunity costs and that differing perspectives influence decisions about the production and consumption of consumer goods and services and ultimately affect quality of life.

Presenting students with “I can...” statements can help focus their learning and provide a context for assessment with this lesson sequence’s activities.

Inquiry

How do differing perspectives influence decisions about what to produce and consume?

Key Concepts

Quality of life **Consumerism** **Consumption** **Production**

Preparation

Suggested Time: 2 to 5 50-minute class periods

The following handouts, materials and resources are used in this lesson sequence:

- Handouts
 - Briefing Notes 2A: Food and Fuel
 - Student Resource 2B: Research Sources Organizer
- File folders
- Audiotaping or videotaping equipment
- Local media sources: newspapers and magazines (*Ask students to bring copies of current newspapers from home to establish a classroom collection.*)
- Internet access and interactive whiteboard to display and share website links

“I CAN”

Lesson Sequence Two encourages students to demonstrate their learning by developing understandings such as the following:

- **I can** identify and compare conflicting perspectives and opinions on issues involving consumerism and quality of life.
- **I can** assess the influence that consumer choices have on the production of consumer goods.

Lesson Sequence Two

Grade 9 Social Studies Curriculum Connections

Inquiry

Making a Point

How do differing perspectives influence decisions about what to produce and consume? (Lesson Sequence Two)

Values & Attitudes Outcomes

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

Knowledge & Understandings Outcomes

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- How does marketing impact consumerism? (ER)
- How does consumerism provide opportunities for and limitations on impacting quality of life? (PADM, ER)

Skill & Process Outcomes

9.5.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- generate creative ideas and strategies in individual and group activities

9.5.4. demonstrate skills of decision making and problem solving:

- propose and apply new ideas and strategies, supported with facts and reasons, to contribute to problem solving and decision making

9.5.7 apply the research process:

- reflect on changes of perspective or opinion based on information gathered and research conducted
- integrate and synthesize concepts to provide an informed point of view on a research question or an issue
- develop a position supported by information gathered during research
- draw conclusions based upon research and evidence
- organize and synthesize researched information
- formulate new questions as research progresses
- demonstrate the advanced search skills necessary to limit the number of hits desired for online and offline databases; for example, the use of "and" or "or" between search topics and the choice of appropriate search engines for the topic
- include and organize references as part of research
- evaluate the relevance of electronically accessed information to a particular topic
- make connections among related, organized data, and assemble various pieces into unified message
- analyze and synthesize information to create a product

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message

Lesson Sequence Two Teaching and Learning Strategies

How do differing perspectives influence decisions about what to produce and consume?



Introductory Activity

Students begin the lesson sequence by brainstorming and thinking about the extent to which their decisions about the goods and services they purchase and use are connected to their identity, beliefs and priorities.

Instructional Strategy: Board Share

A board share strategy asks students to work in small groups and brainstorm responses to a question. While the group brainstorms, an appointed recorder continues to record the group's ideas on the board. The recorder is responsible for ensuring that all of the group's ideas are recorded.

PROCESS

1. Ask students to think about why and how decisions about the goods and services they purchase and use are connected to what they believe to be important. Discuss the idea that what individuals believe to be important is often connected to their identity, beliefs and priorities. Consider specific goods and products that are used every day, including products or services that relate to agricultural production. Have students work with small groups to brainstorm their ideas, using a group share strategy such as a board share.
2. Record and organize brainstormed ideas in the form of a web or list on the board or on chart paper. Use students' ideas to introduce the inquiry question for this learning sequence: *How do differing perspectives influence decisions about what to produce and consume?*
3. **Extend:** Ask students to also identify examples of conflicting priorities or beliefs that can make a decision about whether or not to use a product or service more difficult to make. Create a poster list and display the poster in the classroom.



Briefing Notes Activity

Students read and discuss the Briefing Notes with a partner. They focus on consumer demands and trends and producer decisions that have influenced the increasing use of agricultural products such as canola as an energy source as well as a food source.

Instructional Strategy: File Folder Research

Group research strategies provide the opportunity for students to practice research skills in a group setting. Provide each group with a file folder to hold their research. As students collect and record information, use the file folders to organize research as well as to record group discussion and reflection on the research. Each group can be asked to focus on one research question to facilitate the development of research skills and expertise in a specific content area. Sharing file folders allows students to share their expertise.



PROCESS

1. Provide each student with a copy of **Briefing Notes 2A: Food and Fuel**. Work with students to discuss or respond in writing to the *Predict* questions at the beginning of the handout.
2. Provide each group with a blank file folder and **Student Resource 2B: Research Sources Organizer**. Assign **one** of the perspectives provided in the Briefing Notes to each group. Structure time to complete research using classroom sources, such as textbooks, library resources and the internet. Each group should consult three different sources and record their research results on the organizer. Groups include:
 - Consumers and consumer groups
 - Government
 - Environmental groups
 - Petroleum producers
 - Canola producers.

A number of internet links are provided in the Briefing Notes. Remind groups to focus on the perspective of their assigned group regarding decisions about using a traditional food crop, such as canola, as an energy source.

3. Ask groups to record or cut-and-paste additional research, excerpts from sources, examples from media sources and visuals directly in their file folders. Have each group maintain a bibliography of the resources they have used as research sources.
4. **Extend:** Students can be asked to create and maintain a class bibliography "fact sheet" with an ongoing list of resources and references that they find and use.



Closing Activity

Students display and share perspectives on issues relating to food and fuel production in a classroom press conference.

Instructional Strategy: Press Conference

A press conference can encourage students to share research and learning with other students or groups in the class. Each group decides how to present a statement that advocates their perspectives with supporting research. A spokesperson can be appointed from each group and a time limit provided for their statement. A table can be set up at the front of the classroom for representatives of each group. Once statements have been presented, other students ask questions of the representative of other groups.



DIFFERENTIATE

Students can be provided with a number of choices or options as they participate in the press conference.

- *Each group can decide how to appoint a spokesperson for the press conference.*
- *Students can be asked to focus on specific aspects their file folder research for the press conference.*
- *Groups can audiotape or videotape their press conference presentations privately before presenting it to the class.*

PROCESS

1. Have each group use their file folder research project to synthesize their findings and prepare a statement that presents the key perspectives and messages of the group they researched. Appoint a group spokesperson to participate in the press conference. Develop questions that can be asked of other groups.
2. Hold the press conference, and consider audiotaping or videotaping student presentations.
3. Once students have completed the press conference, ask them to discuss common or different perspectives they have found represented in their own and each other's research. Reflect on what was learned by responding to the following questions:
 - What did you learn about considering alternative perspectives on an issue? What most emphasized this for you? What does this suggest to you about the nature of issues in the "real" world?





Extension Activity

Students work individually to create a public service announcement that communicates the top three points that should be considered when deciding what perspective to support in issues relating to food and fuel production.

Instructional Strategy: Public Service Announcement

Student products provide an opportunity to summarize, synthesize and communicate learning and display research results. As students create a “real world” product such as a public service announcement, they are encouraged to consider and construct the central message and select relevant reasons.

PROCESS

1. Ask students to reflect on what they have learned about different perspectives involved in issues relating to food and fuel production, as well as what they consider are the most compelling arguments for supporting different points of view.
2. Ask students to create a brief public service announcement that is directed at consumers. The public service announcement should contain a message advocating what is important to consider when making consumer choices that involve the use of agricultural products for food and fuel.
3. Invite students to present their public service announcements to the class.



DIFFERENTIATE

The public service announcement can be a poster, radio or television commercial spot, print advertisement or short feature article.

Students should also be encouraged to choose the intended audience of their message. For example, they could take on the role of a lobbyist pitching a message to government; a marketing firm pitching a message to consumers; or a government agency pitching the message to industry or to citizens.

Food and Fuel

Predict

What is a consumer trend? What influence do you think consumer trends have on producers of goods and services?

Influences on Production Choices

"Canadians are embracing the ever-increasing variety of foods and beverages available to them, putting modern twists on traditional favourites, and eagerly trying new cuisines introduced through travel, foodservice, retailers, friends, and family. The Canadian diet now includes more fresh fruits, yogurts, cheeses, creams, red meats, exotic juices, low-fat milk, wine, and spirits, and less cereal, sugar, oils, fats and eggs."

Source:

The Canadian Consumer: Behaviour, Attitudes and Perceptions Toward Food Products: Agriculture and Agri-Food Canada. www.gov.mb.ca/agriculture/statistics/food/canada_consumer_report_en.pdf

Research in the United States has identified three demographic trends that influence food markets:

- More informed consumers
- More cultural and ethnic diversity
- More people to feed.

These trends may result in higher food expenditures and demand for different products, or commodities.

Source: Ballenger, Nicole & Blaylock, James. (2003) *Consumer-Driven Agriculture: Changing U.S. Demographics Influence Eating Habits*. Amber Waves: The Economics of Food, Farming, Natural Resources, and Rural America (April 2003).

Food supplies are one of the most important needs of every society. Agriculture has evolved over the years in both its use of technology and its connections to the world. Technology has made the demands of consumers more accessible to farmers. Consumer preferences and trends influence the choices that farmers make about what to produce and how to produce it.

Changes in consumer **demographics**, or the make up of the population, have also shaped food production. Demand for different types of products, such as *trans-fat* free products or more health-wise foods, has influenced the ways that food is grown and produced. Increasing populations also result in higher demand for food products. More concerns over the impact of food production on the environment have resulted in debates about food production methods.

Other products have also been affected by consumer concerns. Some people believe that our reliance on fossil fuels is dangerous. They believe that society should be looking for alternatives that involve renewable resources, such as those that can be produced from agricultural products. This search for alternative energy sources has resulted in disagreements about what these choices really involve.

One example involves canola **biodiesel**. Diesel is an energy source, made from petroleum, that is used to fuel vehicles. Biodiesel is an energy source made from biological organisms, such as vegetable oils from crops such as canola.

There are a range of different points of view on the alternative use of an important food crop like canola for fuel.

People who support the growth of the biodiesel industry say that it will be good for the economy because new factories will be built, jobs created and farmers' production and incomes will rise.

Some argue that increasing the amount of canola production is positive, as canola is effective as a **rotational crop**, which means they can be used in fields that may otherwise be left empty. They point out that canola biodiesel is **biodegradable**, or able to be broken down by natural processes, and that it reduces pollution.



People who are concerned about the use of crops for biodiesel say that the use of food crops for fuel will reduce its availability for food use and may potentially harm the environment if more crops are planted to satisfy the demand for energy. Increasing the proportion of canola that is used for fuel causes competition for land, water and crop nutrients such as fertilizers.

Some believe that the use of canola for biodiesel will lead to more **greenhouse warming**, or warming that results when gases are released and trapped by the atmosphere. They say it takes a lot of nitrogen fertilizer, which converts to a gas that has a greater effect on the environment than carbon dioxide.

Changing energy sources

Source:

Biodiesel Basics: Canola Council of Canada.
www.canolacouncil.org/canola-biodiesel/canola-biodiesel/biodiesel-basics/

"By replacing 2% of the petroleum diesel used in Canada with biodiesel, we can reduce greenhouse gas emissions by about 1.8 million tonnes. That's the equivalent of taking 300,000 cars off the road. Replacing 5% of regular diesel with biodiesel would be like removing 750,000 cars."

Consumer demands for more environmentally sustainable energy sources have resulted from the rising cost of petroleum products and concerns about climate change and the environment. **Environmentally sustainable energy sources** are those that can be produced from renewable resources. Many countries around the world, including Canada and the United States, are looking at "clean" fuel alternatives, including biofuels. Many believe that biofuels – and biodiesel – provide opportunities to reduce greenhouse gas, increase income and employment in rural communities and provide more consumer choice of fuel sources.

In both Canada and the United States, federal, provincial and state governments have set new standards for the production of environmentally sustainable energy sources. Many of the machines that "power" the Canadian economy – heavy equipment, long haul trucks, farm machinery, government vehicles and generators – are powered by diesel fuel. As of July 2012, all diesel fuel sold in Canada is required to contain 2 percent biodiesel.

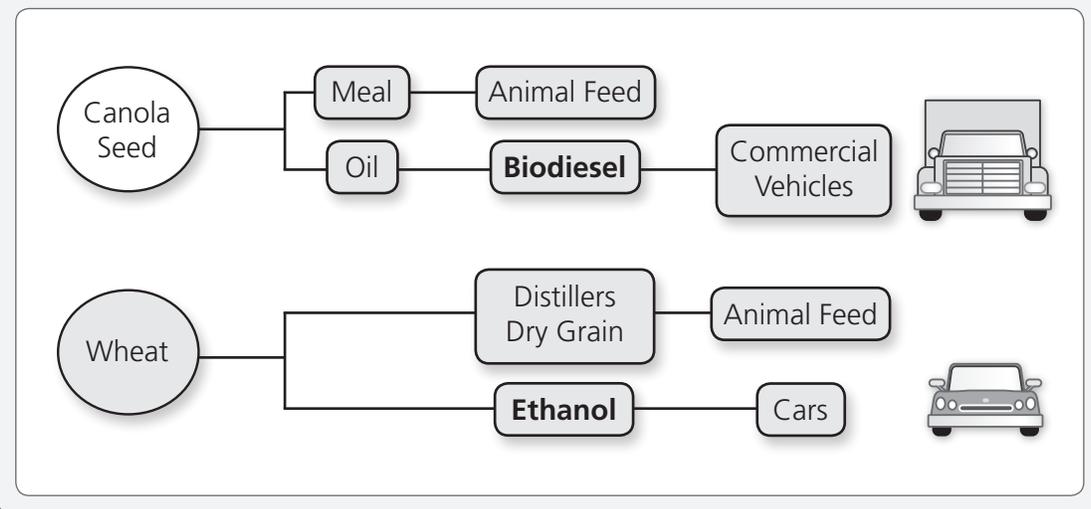
The Canadian government has also stated a goal that all fuels will eventually have 5 percent renewable content. It is expected that substituting just 5 percent of the diesel used today with Canadian-produced biodiesel will generate more production and result in additional farm income.



What are biodiesel and ethanol made from and how are they used?

Canola is an oilseed crop which is grown on approximately 13 million acres of Canadian farm land. When the seed is processed it produces 43 percent oil and 57 percent animal feed, called meal. The oil is further processed into products such as margarine and cooking oil. Biodiesel is made from oils like canola. It is used in diesel engines for commercial vehicles like trucks or buses. Some other commercial vehicles include heavy equipment, locomotives and ships.

Biodiesel shouldn't be confused with ethanol. Although both are "biofuels," biodiesel is produced from oils, such as soy, palm and canola, while ethanol is produced from cereals such as corn and wheat.



When agricultural resources traditionally used for food are used to produce non-food products, there is an opportunity cost. That cost involves the food supply. One of the issues associated with bioproducts is commonly referred to as the food versus fuel debate. Should an agricultural resource such as canola increase production so it can be used as biofuel as well as a food source? What would be the effects of growing enough canola to meet an increased demand for both food and fuel?

These questions are environmental and political issues, but they are also consumer issues. The demand for food and energy is ultimately driven by the consumer and consumerism. The debate is also affected by the possible effect on the supply and price of food that may result from using agricultural crops for fuel. It is also affected by concerns over the effect on the environment of both increased food production and fuel sources.

If more and more agricultural land is used to produce biofuel and other non-edible products, what could the effects be in the future? Or if alternative energy sources are not used for fuel, what are the effects of increased use of non-renewable resources?

Canola as a food product

Canola oil is used in many food products. It is low in saturated fat, rich in vitamin E and a good source of omega-3 fatty acids. Because of its light colour and taste, canola oil is used for cooking and baking in many different foods, and in salad dressings and marinades.



EXPLORE

There are a number of different perspectives involved in the discussion about biofuels, including:

- Consumers and consumer groups
- Government
- Environmental groups
- Petroleum producers
- Canola producers.

Research one of these perspectives with your group. Collect and organize your research using a blank file folder:

- Identify and describe the group you are researching on the front cover of your folder.
- Organize your research results inside the file folder. The internet links that follow provide some starting points for your research.
- Summarize your group's perspective on the back cover of the file folder. Consider the following questions in your summary:
 - o What position does this group take on the decision to use traditional food crops for fuel?
 - o How does this group influence consumer choices? Production choices?
 - o To what extent do you think this groups' perspectives may influence collective consumer actions?

Find Information

The Canola Council of Canada provides a number of fact sheets on a canola-based biodiesel industry. Check these fact sheet links at www.canolacouncil.org/canola-biodiesel/reports-and-news/fact-sheets/.

Is there a new energy economy? Check Industry Canada's website on Hydrogen and Fuel Cells. <http://strategis.ic.gc.ca/epic/site/hfc-hpc.nsf/en/mc00060e.html>

The Renewable Fuels Association provides information on biodiesel and ethanol at www.greenfuels.org.

The American Petroleum Institute website provides information about the American oil and natural gas industry at www.api.org. Explore current issues by clicking on the links under *Industry Issues*.

The American Petroleum Institute website also includes information on alternative fuel sources from the perspective of the oil and gas industry, at www.api.org/Oil-and-Natural-Gas-Overview/Fuels-and-Refining/Alternative-Fuels-and-Renewables.aspx.

A booklet, *Understanding Today's Crude Oil and Product Markets* is available at www.api.org/aboutoilgas/upload/oilprimer.pdf.

What is the government of Canada's involvement? Search for "Canada's renewable fuels strategy" to find the most recent government-related information. Environment Canada provides a backgrounder on this strategy in *Renewable Fuels Strategy is reducing greenhouse gases and creating jobs* at www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=836027A7-252D-461F-A539-9CC10159D0E4.

Will Biofuels Starve the Developing World? This article discusses the cost of using grain crops for fuel to the world's food supply. Find this article at www.spiegel.de/international/world/corn-for-cars-will-biofuels-starve-the-developing-world-a-479940.html.

A perspective on the potentially negative effects of using biofuels can be found in the article, *Biofuels: Biodevastation, Hunger & False Carbon Credits*, on the Institute of Science in Society website at www.i-sis.org.uk/BiofuelsBiodevastationHunger.php.

Search the internet using search terms, "concerns over rising food prices" to find the most recent articles on food supply and prices. Compare the information you find to the perspective in *Canola can meet the demand*, found on the Canola Council of Canada's website at www.canolacouncil.org/canola-biodiesel/canola-biodiesel/canola-can-meet-the-demand/.

Research Sources Organizer

Individual or Group

Source 1

Source 2

Source 3

What are some other questions that are connected to the perspective we are researching?

LESSON SEQUENCE THREE: SOONER OR LATER

Overview

In Lesson Sequence Three, students explore and predict how the different perspectives and actions can affect quality of life in the future. Students are encouraged to consider where they stand on the critical issue: *To what extent do consumer choices and actions influence quality of life?*

Rationale

Students should understand and appreciate perspectives that influence the consumer, the economy, government actions and quality of life.

Presenting students with “I can...” statements can help focus their learning and provide a context for assessment with this lesson sequence’s activities.

Inquiry

Why does quality of life matter?

Key Concepts

Quality of life **Economic effects** **Environmental effects**

Preparation

Suggested Time: 2 to 5 50-minute class periods

The following handouts, materials and resources are used in this lesson sequence:

- Handouts
 - o Briefing Notes 3A: Future Effects
 - o Student Resource 3B: Comparison Chart
 - o Student Resource 3C: Wheel Chart
- Internet access and interactive whiteboard to display and share website links

“I CAN”

Lesson Sequence Three encourages students to demonstrate their learning by developing understandings such as the following:

- **I can** analyze how perspectives and opinions on issues involving consumerism and quality of life might impact the future.

Lesson Sequence Three

Grade 9 Social Studies Curriculum Connections

Inquiry

Sooner or Later

Why does quality of life matter? (Lesson Sequence Three)

Values & Attitudes Outcomes

9.2.2 appreciate the relationship between consumerism and quality of life (C, CC)

Knowledge & Understanding Outcomes

9.2.4 compare and contrast the principles and practices of market and mixed economies by exploring and reflecting upon the following questions and issues:

- What is the role of the consumer in market and mixed economies? (ER)
- To what extent do consumer actions reflect individual and collective identity? (ER, I)

9.2.5 critically assess the relationship between consumerism and quality of life in Canada and the United States by exploring and reflecting upon the following questions and issues:

- How does marketing impact consumerism? (ER)
- How does consumerism provide opportunities for and limitations on impacting quality of life? (PADM, ER)
- How is consumerism used as a power of a collective (e.g., *boycotts*)? (ER, PADM, C)

Skills & Processes Outcomes

9.5.1 develop skills of critical thinking and creative thinking:

- determine the validity of information based on context, bias, source, objectivity, evidence or reliability to broaden understanding of a topic or an issue
- evaluate, critically, ideas, information and positions from multiple perspectives
- demonstrate the ability to analyze current affairs from multiple perspectives
- generate creative ideas and strategies in individual and group activities

9.5.4. demonstrate skills of decision making and problem solving:

- take appropriate action and initiative when required in decision-making and problem-solving scenarios
- participate in and predict outcomes of problem-solving and decision-making scenarios
- propose and apply strategies or options to solve problems and deal with issues

9.5.7 apply the research process:

- integrate and synthesize concepts to provide an informed point of view on a research question or an issue
- develop a position supported by information gathered during research
- draw conclusions based upon research and evidence
- organize and synthesize researched information
- formulate new questions as research progresses
- evaluate the relevance of electronically accessed information to a particular topic
- make connections among related, organized data, and assemble various pieces into a unified message

9.5.8 demonstrate skills of oral, written and visual literacy:

- communicate in a persuasive and engaging manner through speeches, multimedia presentations and written and oral reports, taking particular audiences and purposes into consideration
- elicit, clarify and respond appropriately to questions, ideas and diverse points of view presented in discussions
- make reasoned comments relating to the topic of discussion
- listen to others to understand their perspectives

9.5.9 develop skills of media literacy:

- examine the values, lifestyles and points of view represented in a media message



Lesson Sequence Three Teaching and Learning Strategies

Why does quality of life matter?

Introductory Activity

Students begin by sharing ideas and insights they have about the factors that influence consumer choices and those that determine quality of life.

Instructional Strategy: Class Discussion

Discussing initial ideas and insights on a topic reinforces the importance of considering meanings and perspectives associated with key concepts. It also provides an opportunity for students to consider what they already know and understand, and what they would like to know more about. A whole class discussion encourages students to share understandings, re-examine prior knowledge and revise opinions as they listen to the perspectives of others.

PROCESS

1. Have students revisit the concept of quality of life and present some initial discussion questions to them, such as:
 - What does quality of life mean to you?
 - Do you think there are factors that everyone agrees with that influence quality of life? What do you think people may see as different in influencing their quality of life?
 - How do individuals establish a good quality of life? What actions do they take? How might collectives take action?
 - How important is it that people consider the future when taking actions to build a good quality of life? Or is it more, less or just as important to be concerned about quality of life now?
2. Introduce the inquiry question to students: *Why is quality of life important?* Consider how individuals' quality of life affects their choices as consumers.

Quality of life can be described as the influences upon the goodness and meaning of life, as well as people's happiness and well being. Quality of life can involve different factors and mean different things to individuals.

The University of Toronto's website provides a detailed overview of factors that influence quality of life. These factors can be accessed at www.utoronto.ca/qol/qol_model.htm.

A report, *Does Money Matter? Determining the Happiness of Canadians* (February 2011), also provides insights into factors that influence quality of life. This report can be accessed at www.csls.ca/reports/csls2010-09.pdf.



Briefing Notes Activity

Students read and discuss the Briefing Notes with a partner. They analyze a number of different perspectives regarding issues related to food and fuel production, and what others predict for the future.

Instructional Strategy: Comparison Chart

Comparison charts are an effective way for students to develop research skills in both collecting and organizing research data. Comparison charts can encourage the collection of information from multiple sources and the consideration of multiple perspectives.

PROCESS

1. Provide each student with a copy of **Briefing Notes 3A: Future Effects**. Work with students to discuss or respond in writing to the *Predict* questions at the beginning of the handout.
2. Use the Briefing Notes as well as other sources to explore the potential effects of the food and fuel issue on the economy, consumers, producers and the environment. Consider the extent to which the food and fuel issue currently affects quality of life, as well as potential effects in the future.
3. Provide students with **Student Resource 3B: Comparison Chart** and invite them to compare the positions, effects and potential actions of two of the perspectives they have explored. Encourage students to consider both intended and unintended effects of the position represented by each of the quotations in the handout as well as those they collect on their own.
4. Ask students to reflect on their learning by discussing the following questions:
 - How do the perspectives you have explored affect your own opinion about the food and fuel issue?
 - What aspects of this activity helped you consider both the current and future effects that may result from issues relating to food and fuel production?



DIFFERENTIATE

Students can consider the discussion questions individually, with a partner, and then participate in a whole class discussion in a Think-Pair-Share cooperative learning structure.

Use students' insights and ideas to gain an understanding of their prior knowledge and understandings of quality of life.



Closing Activity

Students create a “futures” wheel chart to create a vision of the economy of the future.

Instructional Strategy: Futures Wheel

Visual organizers provide an opportunity for students to synthesize their research and use it to make predictions based on evidence and facts. A “futures” wheel chart can be used to develop a conclusion and base a prediction on evidence gathered through research. The prediction can be placed in the centre of the wheel, with evidence that supports the viability of the prediction placed in the spokes of the wheel.

PROCESS

1. Provide each student with **Student Resource 3C: Wheel Chart**.
2. Have each student create a “futures” wheel chart that describes a prediction about the economy of the future. What are the roles and responsibilities of consumers in this economy?
3. Encourage students to use evidence found and shared by classmates to record reasons for their predictions in the spokes of the futures wheel.
4. Have students discuss their futures wheel in the context of the critical issue: *To what extent do consumer choices and actions influence quality of life?*



Extension Activity

Students create an outline for a marketing plan that communicates the different points of view and compelling arguments that support making an informed decision.

Instructional Strategy: Marketing Plan

Student products provide an opportunity to summarize, synthesize and communicate learning and display research results. As students create a “real world” product such as a marketing plan, they are encouraged to consider a range of opinions and predictions about the future of food and fuel production.

PROCESS

1. Have students use the information they collect to create an outline of a marketing plan for a booklet or internet site designed to inform consumers about the range of perspectives involved in issues relating to food and fuel production and promote the importance of making an informed decision.
2. Design the marketing plan to include:
 - A potential market
 - How the marketing message will be promoted and advertised
 - The important points of the marketing message
 - When and where the message will be provided
 - What will influence consumers to use the booklet or internet site.
3. **Extend:** Alternatively, provide students with the opportunity to identify other current issues associated with the use of resources and economic decision making around which to develop a marketing plan. Students may identify other issues such as those connected with changes in farming, urban growth, the impact of agriculture on the environment and new technologies.

Marketing is a strategy that involves communicating information about a product or service with the purpose of encouraging consumers to purchase or use the product or service.

A **marketing plan** provides details about the why, what, how, where and when of the marketing strategy.

Students can be asked to use a PowerPoint template to create their marketing plan. There are a number of PowerPoint templates available on internet sites.

Graphic organizers can also be created for the marketing plan by using an application such as Inspiration.

Future Effects

Predict

How do you think quality of life could be affected in the future if more and more agricultural resources were used for purposes other than the food supply?

Many newspaper and magazine stories contain a mixture of factual information and opinions. A **fact** describes something that has actually happened, or something that can be proven to be true. An **opinion** describes an attitude, judgment, point of view or conclusion that cannot be proven true or false.

When an opinion is expressed as if it were true, it has a **bias**. A bias can also be represented when perspectives or points of view are left out or only one side of an issue is presented.

There are a number of different perspectives involved in issues relating to food and fuel production. Many of these perspectives involve concerns and predictions about how different actions on these issues will affect quality of life in the future. What differing opinions are expressed about the future impact of using agricultural crops for fuel sources?



Each of the eight sources that follow present perspectives and opinions about biofuels. These perspectives show that there can be strong and conflicting opinions about the uses and effects of biofuels. What position do you think each of the sources represent?

1 *A clean energy source*

Biodiesel and ethanol production is generally a very clean industry. Air emissions are considerably less than from oil refineries. Biofuel refineries are closely regulated by air and water pollution policies, and in many places, must install the best available control technologies so that air and water emissions meet stringent standards.



Biodiesel's health effects have been tested extensively. It has been classified it as a non-toxic substance that poses absolutely no threat to human health. Unlike gasoline and diesel, ethanol and biodiesel are not harmful when they come into contact with skin.

2 So what's the problem?

The problems with biofuels start to emerge when we look at the proposed scale of production. As governments around the world look at biofuels as a way to reduce greenhouse gas, many are setting mandatory targets and providing subsidies, or financial support, to biofuel producers.

The volume of agricultural products required to meet the increasing percentage of ethanol or biodiesel content in gasoline or diesel fuels has already had significant impact on the environment. In fact the carbon dioxide emissions can actually be higher for ethanol and biodiesel when the entire chain of production is taken into account. This should be cause for alarm – putting biofuels in the category of a *cause of*, not a *solution to*, climate change.



BIOFUELS IN PERSPECTIVE

The Good

- A good possibility of no threat to food security when excess or non-food plants are used
- Potentially requires low levels of energy for production
- Decreased emissions when compared to fossil fuel use
- Economic benefits for farmers and communities
- Renewable source of energy

The Bad

- High water consumption
- Threat to food security where food competes with fuel for arable land
- Energy requirements could be high when produced with large machinery, fertilizers and pesticides
- Biodiversity could be lost if deforestation is a result of more crops being grown

Source:

Adaped from "Biofuels:
The good and bad."
*Climate Change IQ:
Greener transportation*
(2010): National Union
Research. [www.nupge.
ca/files/publications/
Environment/Greener
Transportation.pdf](http://www.nupge.ca/files/publications/Environment/GreenerTransportation.pdf)

3 *Imagine...*

imagine...

Fuel that provides a made-in-Canada solution for a better environment

Fuel that helps Canadian farmers earn money and diversify their businesses

Fuel that helps industrial and municipal trucks reduce toxic emissions

Fuel that's clean, renewable and produced right here at home

Fuel that can help start clearing our air **today.**



For more information about the environmental and economic benefits of a made-in-Canada canola-based biodiesel industry, visit www.canola-council.org/CanadaGold.



Source:
Canola Council of
Canada.

4 *Reduced consumption + increased efficiency*

The pressure to deliver an endless flow of low polluting fuel is at the heart of the problem. As long as someone can make a profit on biofuels, they will be packaged and delivered to us as a solution. We need to focus on reducing consumption through a variety of measures. Different types of incentives, programs and regulations can reduce our need for increasing quantities of fuel, such as:

- Mandatory fuel economy standards on vehicles
- Taxes on gas to influence consumer habits
- Walking paths and cycling lanes to encourage alternatives for short trips
- Improvements to public transit systems
- Tax-free bus passes
- Rebates for efficient vehicles
- An improved rail system to limit trucking of freight.



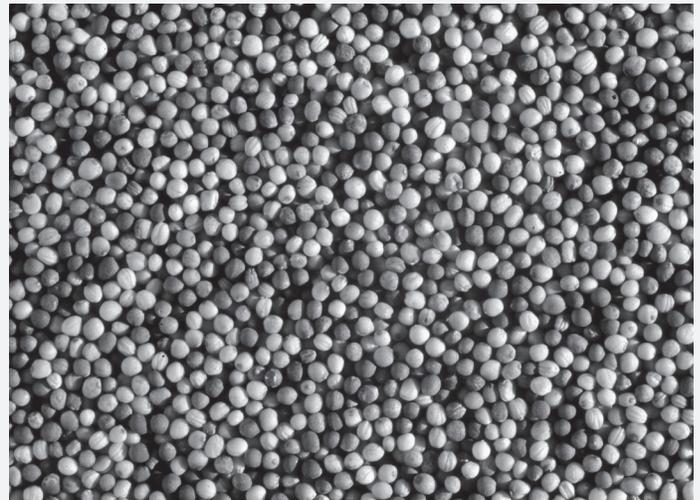
5 Biofuel concerns

Recent media reports have focused on two key areas of concern about biofuels: the use of food crops for fuel and the net environmental benefit of biofuels relative to petroleum.

Will using canola oil as a feedstock for biodiesel cause food shortages?

There are several reasons why the new demand for canola oil created by biodiesel will not reduce the availability of canola for food use.

- a. We grow more than enough canola. The federal government's 2 percent biodiesel mandate would require about 1 million tonnes of canola seed annually. Historically, food demand has resulted in enough **carryover**, or leftover stock, of canola seed to fill this biofuel demand. Some of the carryover is lower quality, non-food grade canola that is difficult to sell. That means Canadian canola producers can easily fill the biodiesel demand without diverting canola from food use. When more biodiesel feedstock is needed, it can be provided in the form of other vegetable oils, animal fats and recycled restaurant grease.
- b. The numbers of canola acres planted by farmers is increasing, as is the yield of seed that is harvested from those acres. For example, average canola yields have risen 50 percent in 15 years, and Canada is on track to produce 15 million tonnes of canola a year by 2015. Farmers continue to harvest bigger yields as new varieties increase the productivity of land already in production.



Will we harm the environment or the soil by planting more canola for biodiesel?

There have been several studies which have shown the advantage of growing canola the year after wheat has been grown on the same land. This "rotation" reduces weeds and disease that can occur if the same type of crop is grown from year to year.

How much energy does it take to make biodiesel compared to petroleum diesel?

It takes one litre of petroleum diesel as energy to produce four litres of petroleum for consumer use. It does take more energy to produce biodiesel. But it does **not** take more energy to make the biodiesel than it provides for consumers. Also, biodiesel is a renewable rather than non-renewable resource.

Source:
Canola Council
of Canada.

Will using biodiesel really make any difference given how much petroleum we use?

As of July 2012, all diesel fuel sold in Canada must contain 2 percent biodiesel. Canadian jobs and communities can grow by making biodiesel right here, instead of importing it from the United States. Greenhouse gas emissions can be reduced by about 1.8 million tonnes. That's the equivalent of taking 300 000 cars off the road. Replacing 5 percent of regular diesel with biodiesel would be like removing 750 000 cars.

The reality is that by itself, biodiesel won't be the entire solution to reducing our dependence upon petroleum but it is a good place to start.

6 *The world's food supply*

The world already grows more than enough food to feed everyone. About a billion people now don't have enough food to meet basic daily needs, but that's NOT because there's not enough food. There's more food per capita now than there's ever been before – enough to make everyone fat. There's enough to provide at least 4.3 pounds of food per person a day: two and a half pounds of grain, beans and nuts, about a pound of fruits and vegetables, and nearly another pound of meat, milk and eggs.



People starve because they're victims of an inequitable economic system, not because they're victims of scarcity and overpopulation.

Source:
Food or Fuel?: *Journey to Forever* website.
http://journeytoforever.org/biofuel_food.html.

7 Consumer messages

The food industry approaches consumers as choosers, communicators and explorers. It appeals to a positive notion of ourselves, the people we would like to be. Some environmentalists and health proponents too often appeal to us in negative terms. "Don't do this or that." "Be fearful." Only by controlling the system of food production can consumers have confidence in both quality and price.

8 Rising consumer consumption

Consumers buy and influence the purchase of a wide variety of products. The production of these products depends on the earth's natural systems. Some products supply essential human needs, while others are luxuries. If our resources continue to be used to provide these luxuries, we won't have enough to meet essential needs.

Higher levels of obesity, more spending and less recreational time, increasing debt and environmental risks are all signs of a decreased quality of life for many people. Citizens and governments need to shift their focus away from consumer spending.

Increasing consumer spending also has an effect on the environment. Homes, malls, businesses and farms take over forests, wetlands and other natural places. Cars and other forms of transportation use energy and non-renewable resources. Governments need to set rules and develop policies to limit this economic expansion and the production of more and more unnecessary consumer goods. Alternative energy sources, like biofuels, should be developed using renewable resources.



EXPLORE

What do each of these sources say about how quality of life could be affected by decisions about the use of food crops for fuel?

Use the graphic organizer below to make "jot notes" about the perspectives represented in each of the eight sources.

1

2

3

4

5

6

7

8

Find Information

The examples and excerpts in this Briefing Notes are from a variety of sources. The sources are listed below. Explore them in more depth to help you research what these different perspectives involve.

The Canola Council of Canada provides a number of fact sheets on a canola-based biodiesel industry. Check these fact sheet links at www.canolacouncil.org/canola-biodiesel/reports-and-news/fact-sheets/.

Additional information on biodiesel is provided by the Alberta Canola Producers Commission in Canola Biodiesel at <http://canola.ab.ca/biodiesel.aspx>.

Check National Geographic at Biofuels: The Original Car Fuel at <http://environment.nationalgeographic.com/environment/global-warming/biofuel-profile/>.

Background information and perspectives on the environment, biofuels, climate change and genetic technology can be found in National Union of Public and General Employees website at www.nupge.ca/publications/environment.

The *Journey to Forever* website is found at http://journeytoforever.org/biofuel_food.html.

Comparison Chart

What **effects** could different decisions and actions result in? Use the chart below to compare the position, potential effects and impact on quality of life from the opinions expressed in two different Briefing Notes sources.

Consider the effects of each position on:

- Agricultural activities and production
- The economy
- The environment.

Look at the intended and unintended effects of each position.

<p>What is the perspective represented by this individual or group? Summarize the perspective in your own words.</p>		
<p>What position is this individual or group taking on the food and fuel issue?</p>	<p>What are the potential effects of using food crops for fuel, according to this position?</p>	<p>What impact would the decisions advocated have on quality of life?</p>
<p>What is the perspective represented by this individual or group? Summarize the perspective in your own words.</p>		
<p>What position is this individual or group taking on the food and fuel issue?</p>	<p>What are the potential effects of using food crops for fuel, according to this position?</p>	<p>What impact would the decisions advocated have on quality of life?</p>

What do **you** think?

Wheel chart

