



#MyFoodChoice

**An Educational Inquiry Resource
for Canadian High School Students**





Introduction

The #MyFoodChoice resource is a national inquiry-based resource that promotes students critical thinking skills when looking at the food choices they make and answering the overall question of 'How can I make informed food choices'. This resource will take approximately 2 weeks to complete and has videos, interactive student sheets, approved resources and more! There are 5 lessons total in this resource. It is aimed at grade 9-12 students in subjects such as science food studies, English, agriculture, social studies, humanities and more.

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Agriculture in the Classroom Canada values the subject matter experts that led in the development of this resource:

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Resource Overview

#MyFoodChoice is an inquiry-based resource that encourages students to think critically when asked, “How can I make informed food choices?” This resource will help students develop the skills to be informed consumers. Throughout this resource, students will be exploring information using an inquiry approach that incorporates a broad range of web-based resources.

RESOURCE OUTLINE			
Lesson 1	Critical Thinking Activity Hook Video	60 minutes	Engage students' critical thinking skills and inquiry mindset.
Lesson 2	Teacher-Led Inquiry <i>Topic: Science and Technology</i>	60 minutes	Teacher models inquiry in class using mini-project.
Lesson 3	Student-Led Inquiry <i>Topics: Environment, Sustainability, Media, Health, Food Security, Food Safety, Economy</i>	60 minutes	Students choose one topic to research: Environment, Sustainability, Media, Health, Food Security, Food Safety and Economy. Students develop their inquiry questions.
Lesson 4	Research	120 minutes	Two class periods devoted to research.
Lesson 5	Presentations	120 minutes	Two class periods devoted to presentations.

Inquiry-Based Learning

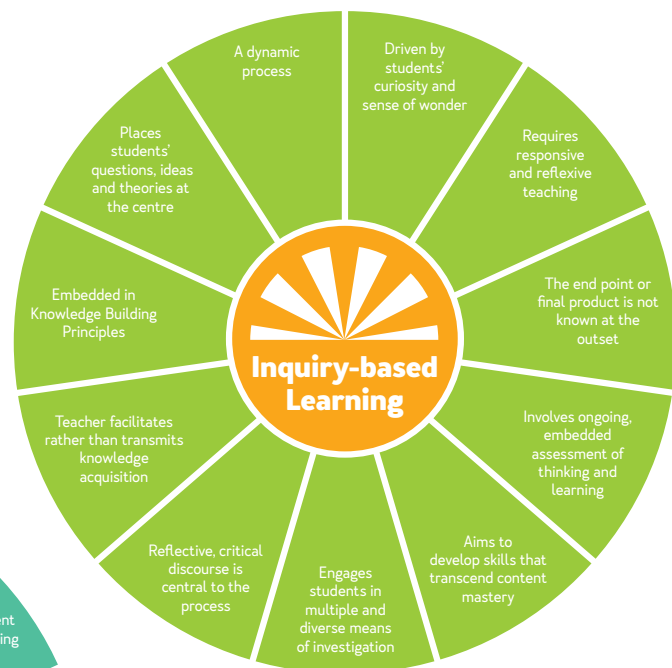
What is inquiry-based learning?

Inquiry-based learning starts by posing questions, problems, or scenarios—rather than simply presenting established facts or portraying a smooth path to knowledge. You, as a facilitator, will assist the process.¹

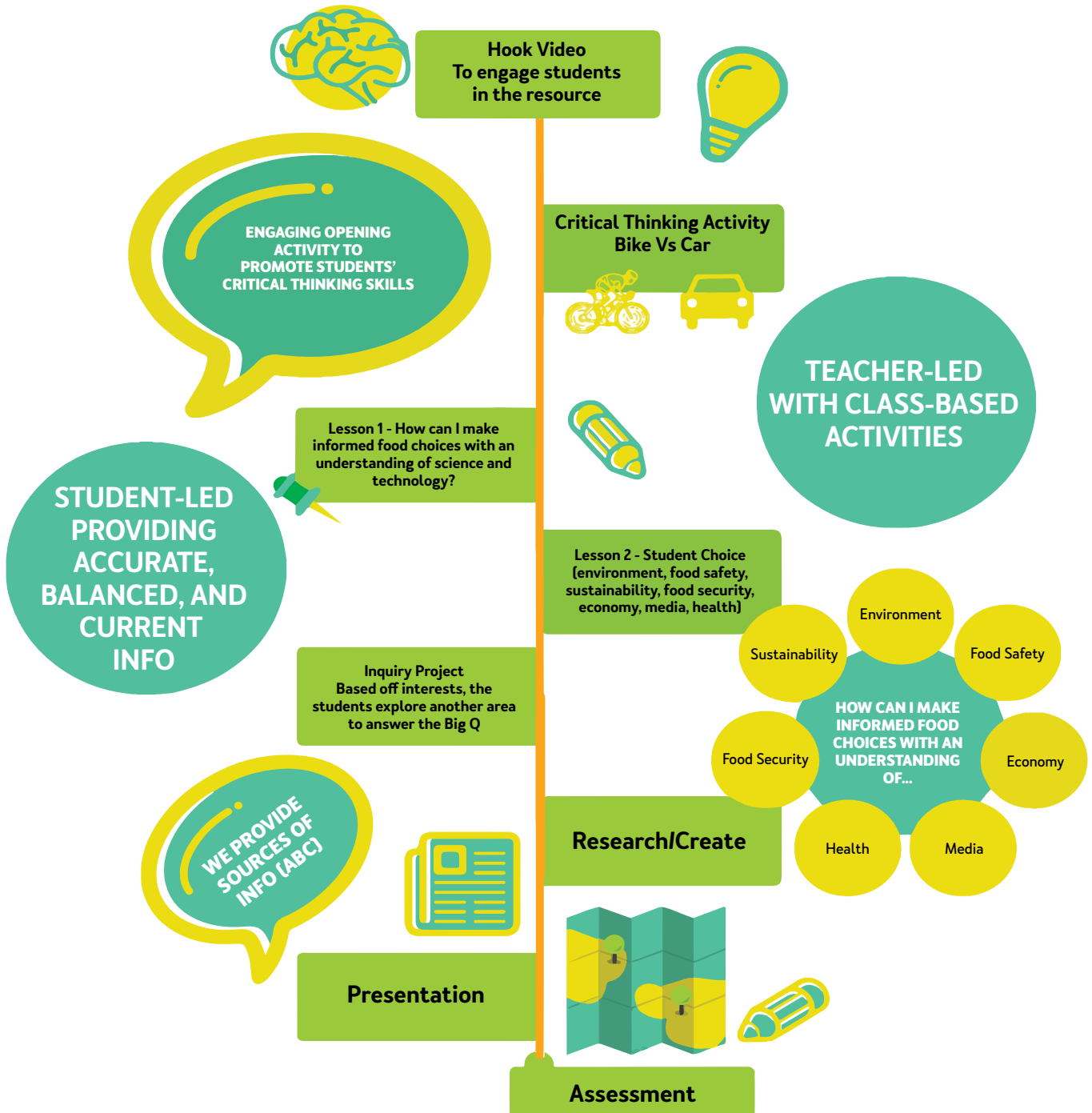
Why inquiry-based learning?

Inquiry-based learning is a great opportunity for students to explore topics that they find interesting. Students are motivated by the power to choose their own path of learning.

1. https://en.wikipedia.org/wiki/Inquiry-based_learning



HOW CAN I MAKE INFORMED FOOD CHOICES?





Provincial Learning Outcomes

ALBERTA

AGR1010

- Introduction to Agriculture

AGR1100

- Agriculture Technology

AGR2010

- Diversity in Agriculture

BRITISH COLUMBIA

Environmental Science 11

- Diversity in Local Ecosystems
- Changes in Local Ecosystems
- Sustainability in Local Ecosystems

Food Studies 10

- Food safety
- Food choices based on mental/physical health
- Food trends in marketing
- Global food systems and how they affect food choices, including environment, ethical, economical, and health impacts.

Food Studies 11

- Food safety
- Food ingredients
- Food security
- Creation of food guides
- Roles, responsibilities, and regulations of Canadian government agencies and food companies with respect to food labeling
- Food promotion and marketing practices

MANITOBA

Social Studies 9

- Cluster 3: Canada in the Global Context
- Cluster 4: Opportunities + Challenges

Geographic Issues 10

- Cluster 1: Geographic Literacy
- Cluster 2: Natural Resources
- Cluster 3: Food from the Land
- Cluster 4: Industry + Trade

Science Topics 10

- Dynamics of Ecosystems
- Weather Dynamics

Science Topics 30S

- Nature of Science + Technology
- Scientific Technologies, Skills, and Attitudes
- Science, Technology, Society, and the environment

Agriculture 30S

- Most of the course is relevant

Interdisciplinary 40s

- Nature of Science + Technology
- Research/Information Management
- Attitudes + Scientific Habits of Mind
- Science, Technology, and Environment

World Geography 40s

- Food from the land
- Fishing + Agriculture
- Technological Development
- Present challenges
- Distribution and demands
- Present status and future demands

NEW BRUNSWICK

Media Studies 120

- Advertising, Marketing, and You
- Media and Internet

Journalism Studies 120

- Inquiry
- Accountability
- The Medium and The Message

Wellness through Phys Ed 10

- Health
- Choosing Wellness
- Wellness & the World around us

Nutrition and Healthy Living 120

- Health & Wellness
- Health Trends & Issues
- Consumer Issues



Provincial Learning Outcomes

Biology 111-112

- Science/Technology

Biology 112-122

- Science/Technology, Society & the Environment

Science Grade 9

- Science/Technology, Society & the Environment

Science Grade 10

- Science/Technology, Society & the Environment

Environmental Science 120

- Agriculture

NOVA SCOTIA

ELA 10/11/12

- Speaking and Listening
- Reading and Viewing
- Writing and other ways of representing

Agriculture/AgriFood 11

- Primary Production Systems: Industries, Production and Technology
- Support Systems: Farm Supports
- Support Systems: Society and Environment Connections
- Beyond the Farm Gate: From Farm to Consumer
- Foods: Production Safety
- Agriculture/AgriFood Project: Design an Investigation
- Agriculture/AgriFood Project: Performing and Presenting

ONTARIO

Food and Nutrition 9/10

- Research and Inquiry
- Nutrition and Health
- Food Choices
- Local + Global Foods
- Food Safety

Food and Culture 11

- Research and Inquiry
- Food Practices

Nutrition and Health 12

- Research and Inquiry
- Nutrition and Health
- Eating patterns and trends
- Local and global issues

Food and Healthy Living 12

- Research and Inquiry
- Food fundamentals
- The food consumer

Applied Science 9

- Sustainable ecosystems + human activity

Environmental Science 11

- Sustainable agriculture and forestry

PEI

Agriscience 621

- Crop Production
- Canada
- Culinary

Environmental Science 621A

- Responsibility in Developing Food Resources
- Science/Technology

Biology 621

- Science/Technology

SASKATCHEWAN

Environmental Science 20

- Human Population & Pollution

Health Science 20

- Nutrition

Media Studies 20

- Module 2: Exploring the Medium of Television
- Module 4: Media and Cultural Studies Project

Journalism Studies 20

- Module 3: On Assignment (Project)

Social Studies 10

- Economy



Provincial Learning Outcomes

Economics 20

- Production, Specialization, and Exchange

Social Studies 20

- World Issues, Population, and Environment

Economy 30

- Saskatchewan Economy



Lesson 1: Critical Thinking Activity (Part 1 & 2)

In this lesson, students will:

1. Practice critical thinking skills, including evaluating quality of the information and its source.
2. Begin to ask questions with respect to food, food choices, and food production.

Overview

Students will use critical thinking skills in order to decide whether cars or bicycles are the better choice depending on the scenarios presented in the PowerPoint slides. The purpose of this activity is to show students that all choices we make are situational. This is also true for how we make our food choices. Making food choices could be based on location, availability, affordability, and many other factors. Students need to think critically about the information presented to them throughout this resource.

At the end of this activity, students are encouraged to question the information presented to them. Some of the PowerPoint slides present inaccurate information or statistics. Do students question and/or trust information and its sources?

Suggested time

- 1 class period (approximately 60 minutes)

Materials required

- Projector

TEACHER NOTE

PowerPoint can be found on the #MyFoodChoice website under the Teacher Section.

#MyFoodChoice website:

www.aitc-canada.blogspot.ca

Part 1: Critical Thinking Activity

Learning Activities

1. Split the classroom into two sides representing both sides. One end of the classroom will be pro car while the other end will be pro bike.
2. Each slide will contain a scenario. Based on the information from the slides, students will decide which side of the room to stand in, either the pro car or pro bike side.
3. Each slide is designed to make students choose which option they believe would be the best.
4. Students should be reminded to think objectively and to put aside personal opinions for this activity. Rather, they should choose a side based on the scenario presented.
5. The teacher, acting as the facilitator, presents the PowerPoint and encourages discussion amongst the students.
6. The information on the slides has been chosen to challenge students decisions based on biased pictures, inaccurate information/ statistics, etc.
7. Follow the slide show with the discussion questions of your choice.

Discussion Questions

- a.) How do we know which information is accurate, unbiased, and current?
- b.) What are some 'red flags' that can occur when researching information on a website?
- c.) Do you question where the information comes from when you read a statistic? Why or why not?
- d.) Do you question what celebrities say? Why or why not?
- e.) Did your peers influence your decision about which side of the room to move to? Why or why not?

Part 2: Hook Video

Description

Hooking the students' interest before doing an inquiry project is key for engagement. Thomas Sanders, an internet personality, created a video with AITC-C to share his questions about food with Canadian students. The intention of the video is to engage the students and inspire them to develop their own questions in relation to their food choices.



THINK-MOVE-PAIR-SHARE

1. Give students a moment to *THINK* about their choice.
2. Have students *MOVE* to the side of the room based on their choice.
3. Once students have moved, have them *PAIR* up in their groups.
4. Have students *SHARE* with their group why they made their choice, then have a few students share their responses with the class.

EXTENSION ACTIVITY

Create a student blog to use with your class throughout the inquiry process. See rubric attached to Appendix C.



Lesson 2: Teacher-Led Inquiry

Topic: Science & Technology

In this lesson, students will:

1. Gain an understanding of how science and technology are involved in agriculture.
2. Gain an understanding of industry terms such as “GMO” and “organic”.
3. Gain an understanding of the inquiry process.

Overview

The teacher will use Lesson 2 to model the inquiry process (guided inquiry). Students will need to have a basic understanding of science and technology, as well as the role that these play in food production. After this module, students will use this information and participate in an inquiry project on one of the following topics: Environment, Sustainability, Media, Health, Food Security, Food Safety, and Economy.

Suggested time

- 1 class period (approximately 60 minutes)

Materials required

- #MyFoodChoice Learning Chart (one per student, or have students create their own on a piece of paper)
- Pencil
- Access to technology (cell phone, computer, iPad, etc.) and a wifi connection
- Projector

Learning Activities

1. Students will need access to technology (cell phone, laptop, iPad) and a wifi connection.
2. Project the #MyFoodChoice website for students to follow along. Select the Science and Technology section.
3. Follow the instructions laid out on website.
4. Hand out the #MyFoodChoice Learning Chart.
5. Students fill in #MyFoodChoice Learning Chart, focusing on the question: “How can I make informed food choices with an understanding of Science and Technology?”
6. When students have completed the activity, collect the Learning Charts. These can be assessed using the customizable rubric, and returned to students for use in Lesson 3.
7. Proceed through the teacher-led inquiry process on the next page.

TEACHER NOTE

If your class is new to inquiry, check out “Developing Inquiry Questions” on the #MyFoodChoice website for more information as well as a graphic organizer for students. You may choose to review the information with your class.

#MyFoodChoice website:

www.aitc-canada.blogspot.ca

TEACHER NOTE

The #MyFoodChoice Learning Chart is an adapted version of a KWL chart. It can be found on the #MyFoodChoice website in the Teacher and Student Sections.

#MyFoodChoice Learning Chart			
Name: _____			
Topic: _____			
What do you think you know?	What questions do you have?	What information did you learn?	What questions do you still have?



QUESTION

In small groups, discuss these questions: What information do you think you already know about Science and Technology and its relationship to food? What further questions do you have? What information are you unsure of? Record your responses on your #MyFoodChoice Learning Charts.

DO

Watch the video “Why Are Two Kinds of Food” (12 minutes) from LEARN GMO as one example of Science and Technology used in Agriculture. You are encouraged to continue to add new information from the video to your #MyFoodChoice Learning Charts.

After the video, you will break out into small groups. Take ten minutes to research other types of Science and Technology that are connected to Agriculture. Your teacher will assign your group a topic to research. You have ten minutes to find five facts you did not know about your topic to share with the class.

REVIEW

Following the video, conduct a group discussion based on the following questions. What information was confirmed from your #MyFoodChoice Learning Chart? What questions did the video trigger? What else are you unsure of when it comes to your food? What new information did you learn?

INQUIRE

Prepare for lesson 3 by reviewing a topic that you would like to research. The topics are: Environment, Sustainability, Media, Health, Food Security, Food Safety, and Economy. If you are unsure which topic you would be most interested in and want more information, read the “Why inquire...” section on each topic on the #MyFoodChoice website, or do some further research on your own.

ASSESSMENT

- #MyFoodChoice Learning Chart Assessment Rubric (Appendix C)

TEACHER NOTE

Students can follow along on the #MyFoodChoice website.

TOPICS OF TECHNOLOGY

- Robotic Milking Machines
- Global Positioning Systems/Precision Agriculture
- Soil Probes
- Soil and Water Reclamation
- Transportation, Distribution, and Storage Technology

On the #MyFoodChoice website students can click directly on each topic which will link them to resources.

TEACHER NOTE

Check out the video “GMO with Lego” for a great explanation (using Lego) of plant breeding and genetic engineering. The video link is located on the Science and Technology page of our website.

EXTENSION ACTIVITY

Have the students develop an idea or design a prototype for a new piece of technology that they can use on the farm.



Lesson 3: Student-Led Inquiry

Topic: Student-Selected

In this lesson, students will:

1. Choose a topic that interests them and form small groups for collaboration.
2. Complete a web-based activity that will help students create an inquiry question.
3. Begin the inquiry process as a group.

Overview

Students will choose one of seven topics connected to making informed food choices to research. These topics are: Environment, Sustainability, Media, Health, Food Security, Food Safety, and Economy. Students are encouraged to work in small groups and to choose a topic based on their interests. All topics can be found on the #MyFoodChoice website. Students will complete all the activities on the webpage. Please refer to “Presentation Options for Inquiry” (Appendix A) for ideas, or choose your own method of presentation.

Suggested time

- 1 class period (approximately 60 minutes)

Materials required

- Access to technology (cell phone, computer, iPad, etc.) and a wifi connection
- Completed #MyFoodChoice Learning Chart from Lesson 2
- New copies of #MyFoodChoice Learning Chart

Learning Activities

1. Allow students time to investigate and decide on a topic for their inquiry. Student choice and engagement is vital to the inquiry process. Students should also form groups based on their topic of interest at this stage.
2. Students work through the sections **QUESTION, DO, REVIEW, INQUIRE** on the #MyFoodChoice website.
3. Each group will come up with the inquiry question to guide their research. Refer to “Inquiry Question-Graphic Organizer” to assist students in developing strong inquiry questions.
4. Meet with each group to discuss the inquiry question before research begins.

Assessment

- #MyFoodChoice Learning Chart Rubric (see Appendix B)

TEACHER NOTE

Students can access all activity pages, rubrics and resources directly from the #MyFoodChoice website.

#MyFoodChoice website:

www.aitc-canada.blogspot.ca

EXTENSION ACTIVITY

“What Did We Learn?”

Have each group work through a topic every week during a guided Genius Hour period. Every week, student groups present on a different topic. The following week, the next group of students working on that topic have to add to the previous group’s research.



Lesson 3: Student-Led Inquiry

Topic: Environment

Why inquire about the environment and its relationship to agriculture?

If you are interested in learning about environmental stewardship and sustainability, watch “All I Do Is Farm”, in which the Peterson brothers talk about no-till precision farming and how to decrease water and nutrient erosion.¹

QUESTION

In your small group, start with these discussion questions: What information do you think you already know about the Environment and its relationship to food? What further questions do you have? What information are you unsure of? Record your information on your #MyFoodChoice Learning Charts.

DO

Watch the video, “Why Are There Two Kinds of Farming” from LEARN GMO. Throughout the video, complete the Video Scavenger Hunt Crossword. All crossword answers will be found in the video. Once completed the crossword, ask your teacher for the password to the answer key.

REVIEW

Review your #MyFoodChoice Learning Chart and record what you’ve learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

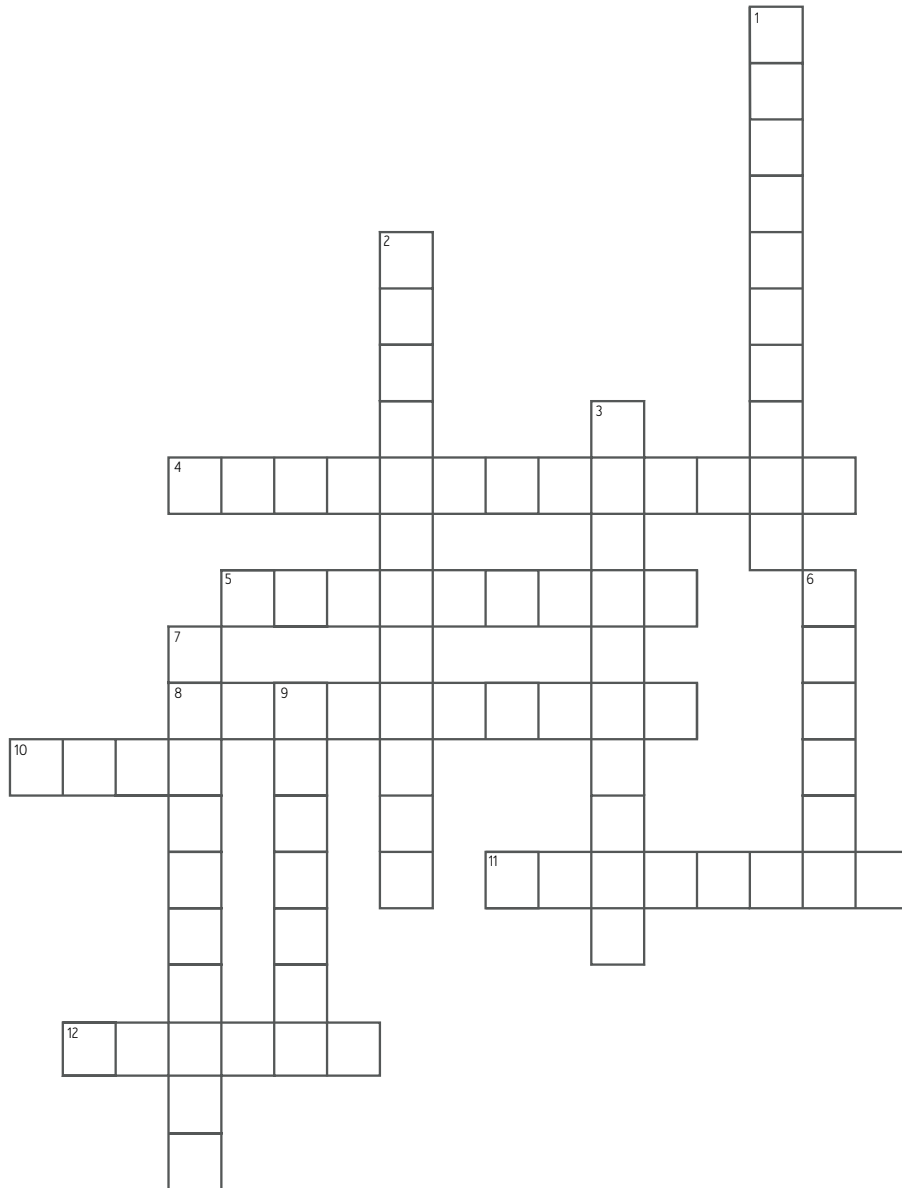
After completing this activity, what questions do you still have about the environment and our food? Develop a strong inquiry question in your group. Check out the “Developing Inquiry Questions” section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

1. <https://www.agriculturemorethanever.ca/from-the-team/all-i-do-is-farm-environmental-responsibility-in-a-song/#.WcKhijMrlzY>

TEACHER NOTE

The crossword answer key is located on the scavenger hunt web-link. The password is AITC.

Video Scavenger Hunt



ACROSS

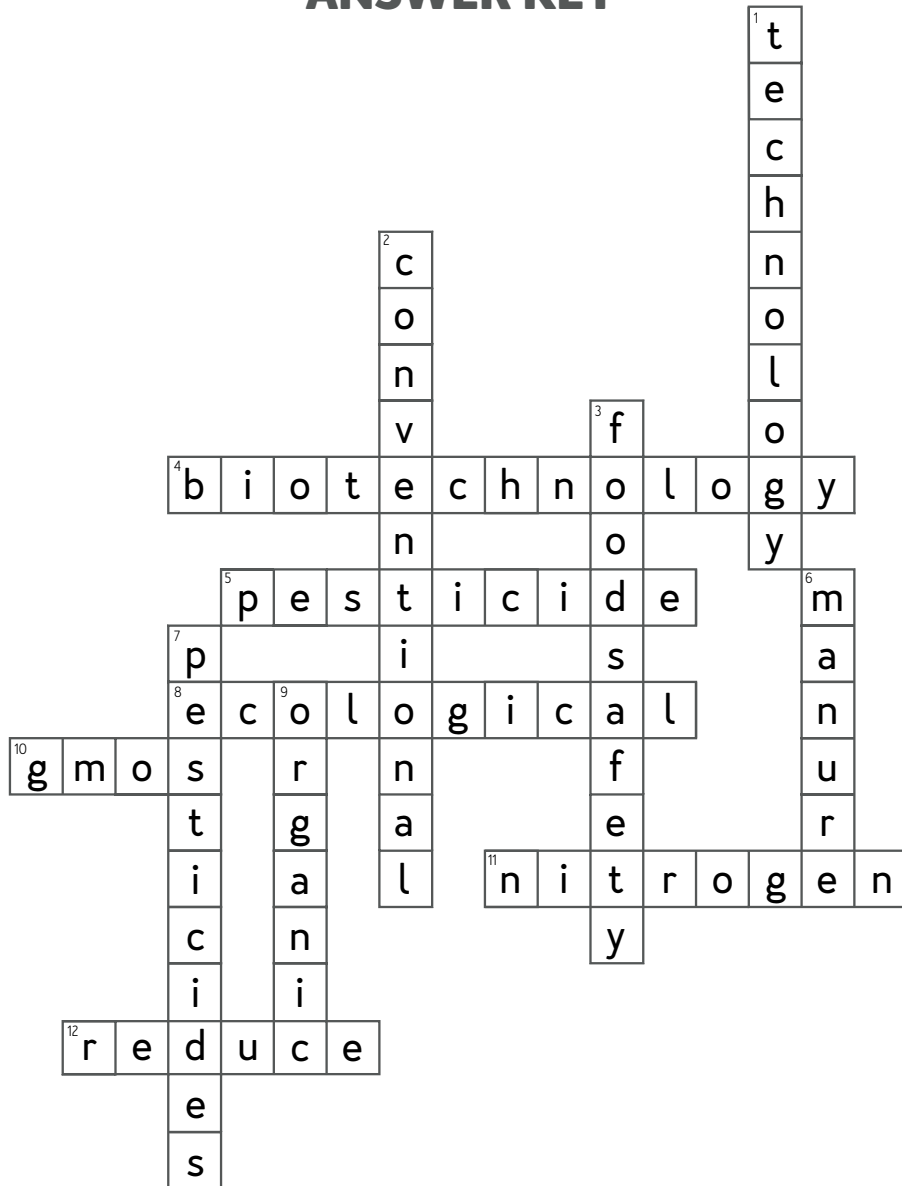
4. Name an example of technology conventional farmers have available to them?
5. "Organic does not mean _____ free".
8. Organic = ?
10. "_____ does not need pesticides to grow."
11. ? = Animal By-Products
12. "GMOs can reduce pesticide use."

DOWN

1. Conventional farming utilizes _____ that farmers have available to them today.
2. What is the traditional type of farming we use?
3. "Almost half of EU Organic Pesticides failed _____ evaluations."
6. How do you replenish soil nutrients organically?
7. What is reduced, but not eliminated, in organic farming systems?
9. "Non-GMO does not mean _____"

Video Scavenger Hunt

ANSWER KEY



ACROSS

4. Name an example of technology conventional farmers have available to them?
5. "Organic does not mean _____ free".
8. Organic = ?
10. "_____ does not need pesticides to grow."
11. ? = Animal By-Products
12. "GMOs can reduce pesticide use."

DOWN

1. Conventional farming utilizes _____ that farmers have available to them today.
2. What is the traditional type of farming we use?
3. "Almost half of EU Organic Pesticides failed _____ evaluations."
6. How do you replenish soil nutrients organically?
7. What is reduced, but not eliminated, in organic farming systems?
9. "Non-GMO does not mean _____"



Lesson 3: Student-Led Inquiry

Topic: Media

Why inquire about the media and its relationship to agriculture?

We are absorbed in the media. Whether it's Twitter, Facebook, Instagram, radio, or television, we are immersed in a world where information is readily available to us at all times. Do you see articles or advertisements about food claims shared on social media? Ask yourself, is the information accurate, balanced, and current? Who is sharing the information? How do we know the claims made in food advertisements are accurate or even necessary? Are false claims being made about our food? How do we know what information is 'real'?

QUESTION

In your group, discuss these questions: *What information do you think you already know about the media and its relationship to food? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

Watch "What Does the Public Think" from LEARN GMO. In your group, discuss whether or not you are influenced by food ads.

Read the article "Social Media Activity". How can we tell if this article is accurate, balanced, current, and from a reliable source? What information is credible? What other sources support the information given?

Read the comments on the article. Decide whether each comment is supported by facts or if it is an opinion. Then, choose one comment and research whether or not the information in the comment is accurate or not. Find three supporting or opposing points from other sources.

REVIEW

Review your #MyFoodChoice Learning Chart and record what you've learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

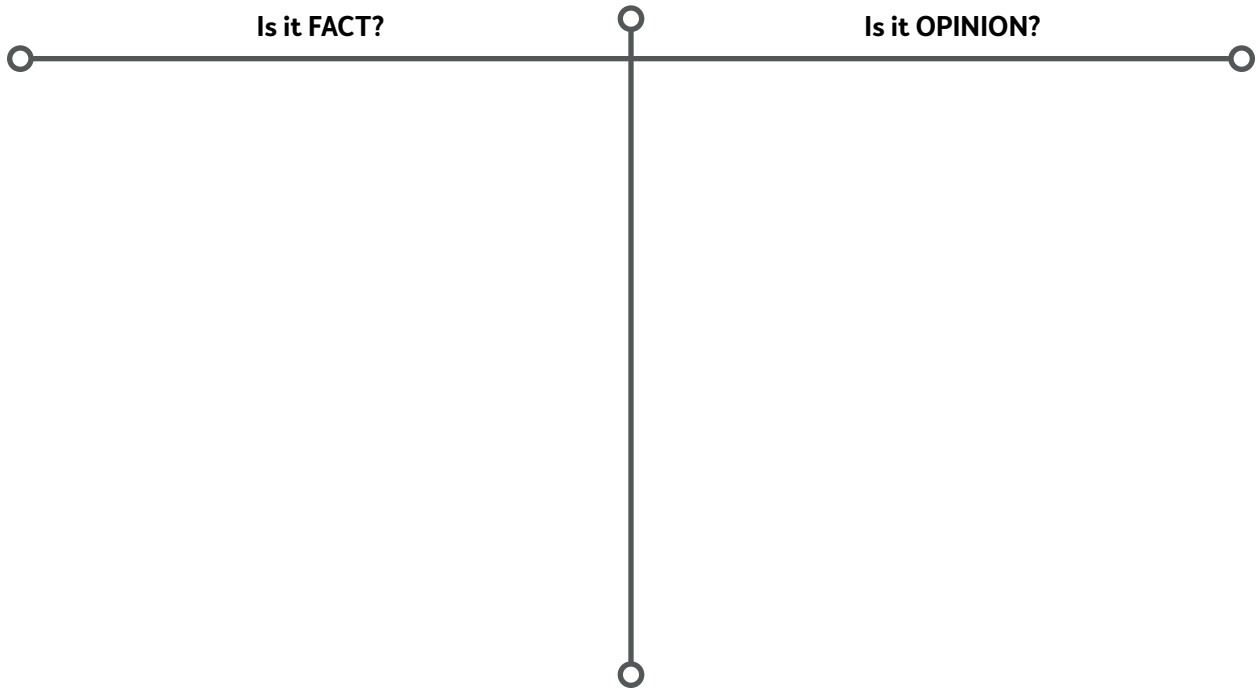
After completing this activity what questions do you still have about the media and our food? Develop a strong inquiry question in your group. Check out the "Developing Inquiry Questions" section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

EXTENSION ACTIVITY

"The Student Perspective"
Now that students have seen adult perspectives in the public discourse, have students interview peers, teachers and their families on media influences that affect our informed food choices. Students can record responses to create the student perspective.

Social Media Activity

Read the comment on the post. Decide whether each comment is **FACT** or **OPINION**.



Choose one comment and research whether the information is accurate. Find three supporting or opposing points from a reliable source to support or deny the comment you choose.

1

Source:

2

Source:

3

Source:



Lesson 3: Student-Led Inquiry

Topic: Health

Why inquire about health and its relationship to agriculture?

Has the question of “what is healthy” been overused? What do we know about some of the trendy words—“gluten free”, “organic”, “GMO-free”, and “natural”—used on food labels? Basically, how do we know which foods are healthy and which foods are not?

QUESTION

In your group, discuss these questions: *What information do you think you already know about health and its relationship to food? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

It's time to do some research! Explore the online interactive tool for food labels. Choose one of your favourite foods. Look up the nutrition label and fill in the “What's in My Food” chart using the list of ingredients. Research the ingredients you can't identify. Healthy foods are made up of simple ingredients. Would you consider your favourite food to be healthy? Why or why not?

Do you ever question what some of the labels on your food really mean? What exactly is organic farming? How do we produce organic food? How does an organic farm get to be certified? Are organic farms regulated? Do organic farms use pesticides? Is organic food a healthier option? These are all valid questions that we as consumers have of organic food. You are going to do an online Scavenger Hunt to answer some of these questions and more about organic food. Head over to the “What Exactly Is Organic Farming?” page and use the resources attached to answer the questions.

REVIEW

Review your #MyFoodChoice Learning Chart and record what you've learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

After completing the activity, what questions do you have about healthy eating and food choices? Develop a strong inquiry question as a group. Check out the “Developing Inquiry Questions” section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

“What Exactly Is Organic Farming?”

Online Scavenger Hunt

Follow the links attached to each question to find the answer through this online scavenger hunt:

What is organic farming?

How do we produce organic food?

How does an organic farm get to be certified?

How are organic farms regulated?

Do organic farms use pesticides?

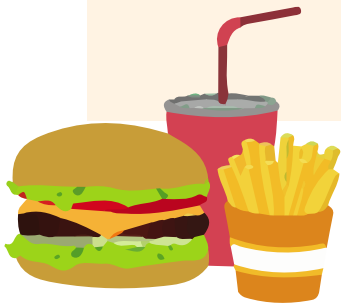
Are organic foods healthier or safer than regular foods?

What's in My Food?

WORDS I CAN IDENTIFY...

WORDS I DON'T KNOW...

Now, pick two or three ingredients from the second column (of words you don't know). Do some research online and record what the words mean and why they are used in food products.



Name: _____

Date: _____



Lesson 3: Student-Led Inquiry

Topic: Sustainability

Why inquire about sustainability and its relationship to agriculture?

What is sustainability? Why do we want to be sustainable? To be sustainable means we have to act responsibly to maintain our planet's resources. Farmers need to act sustainably to maintain the nutrients in their soil to produce food for the world. How can we sustainably feed our growing world?¹

QUESTION

In your group, discuss these questions: *What information do you think you already know about Sustainability and its relationship to food? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

Upload the interactive online simulation, **Journey2050**, which will take you on a virtual simulation that explores world food sustainability. Using an inquiry based approach, this simulation encourages you to make decisions and adjust them as you see their impact on society, the environment and the economy on a local and global scale. You experience the lives of three farm families in Kenya, India, and Canada.²

Start with the demo from Journey 2050 and play the game for the next 40 minutes. Record what factors play into sustainable farming? How can we be more sustainable?

REVIEW

Review your #MyFoodChoice Learning Chart and record what you've learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

After completing the activity, what questions do you have about sustainability and food choices? Develop a strong inquiry question as a group. Check out the "Developing Inquiry Questions" section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

1. <https://cft.vanderbilt.edu/guides-sub-pages/teaching-sustainability/>
2. www.journey2050.com
3. (2017, *The Real Dirt on Farming*).

TEACHER NOTE

The simulation can be found at **www.journey2050.com**. If you are using computers, check to see if they load the Journey 2050 simulation properly. If they will not, the **Journey 2050: School Edition** can be downloaded from the App Store for use on cell phones or tablets.



Lesson 3: Student-Led Inquiry

Topic: Food Security

Why inquire about food security and its relationship to agriculture?

The phrase “food security” means that everybody has adequate access to healthy food. How can we improve food security? What are the ways can we effectively reduce food wastage? Think of your own meals this week. Were you able to save food?¹

QUESTION

In your group, discuss these questions: *What information do you think you already know about Food Security? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

ACTIVITY 1: Upload the interactive online simulation, **Journey 2050**, which will take you on a virtual simulation that explores world food sustainability. Using an inquiry based approach, this simulation encourages you to make decisions and adjust them as you see their impact on society, the environment and the economy on a local and global scale. You experience the lives of three farm families in Kenya, India, and Canada.²

ACTIVITY 2: Challenge: Zero Food Waste! Did you know that on average \$31 billion dollars of food is wasted every single year in Canada? What can we do to decrease food waste in our own households? This challenge is focused directly on YOU. Your task is to create a 7-day cookbook that focuses on repurposing food we typically throw away. Your cookbook will consist of a 7-day menu for healthy breakfast, lunch and supper

options with the focus being “repurposed ingredients” many people would regularly throw away. For example: Did you know that brown bananas make the perfect ingredient in banana bread? Check out resources such as The Ugly Food Movement and incorporate ideas from other young people about how eating ugly food could change our world. Once you have organized your cookbook menu using the Zero Food Waste graphic organizer, you will be required to create a good copy of your cookbook with at least 3 pictures of meals you’ve made to share with the class during your inquiry presentation. Share resources with your classmates and other ideas you’ve researched on how we can decrease food waste to do your part for Food Security.

REVIEW

Review your #MyFoodChoice Learning Chart and record what you’ve learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

After completing the activity, what questions do you have about food security and food choices? Develop a strong inquiry question as a group. Check out the “Developing Inquiry Questions” section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

1. <http://www.foodfirstnl.ca/what-is-food-security/>
2. www.journey2050.com
3. <http://www.cbc.ca/news/business/food-waste-costs-canada-31b-a-year-report-says-1.2869708>

EXTENSION ACTIVITY

The **Journey 2050** computer simulation is a great tool that can be used in the classroom with all students. Check it out for additional learning opportunities.

TEACHER NOTE

The simulation **www.journey2050.com**. If your computer[s] don’t load the simulation properly, the **Journey 2050: School Edition** can be downloaded from the App Store for use on cell phones or tablets. If you are unable to participate in the simulation, use Activity 2 as a replacement.

CHALLENGE: ZERO FOOD WASTE

TASK: Create a 7-day cookbook that focuses on repurposing food we typically throw away. Be sure to include the recipes and cooking instructions in your final copy.

	MEAL 1	MEAL 2	MEAL 3
DAY 1	REPURPOSED INGREDIENT: <i>Leftover fruit can be frozen and used to a breakfast smoothie!</i>	REPURPOSED INGREDIENT: <i>The cut-off ends of asparagus can be used in a delicious soup!</i>	REPURPOSED INGREDIENT: <i>Leftover stuffing from Thanksgiving can be used to make stuffed mushrooms!</i>
DAY 2			
DAY 3			
DAY 4			
DAY 5			
DAY 6			
DAY 7			

What can you do to prevent food waste?



Lesson 3: Student-Led Inquiry

Topic: Food Safety

Why inquire about food safety and its relationship to agriculture?

Canada is a world leader in agriculture and food production. But farming doesn't look the same as it did 100, 50, or even 10 years ago. Farmers are producing more with less, using more efficient and sustainable practices than ever before. So why do consumers carry so much doubt around the way their food is produced? When did fear begin to trump science-based facts when it comes to food production—and how do we earn back that valuable consumer confidence? ¹

QUESTION

In your group, discuss these questions: *What information do you think you already know about Food Safety? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

Using the scenario cards, discuss which scenarios you consider to be 'safe', and 'unsafe'. Provide three points to support your thinking.

Watch the documentary *Licence to Farm* (30 minutes).

Go back to the scenario cards. Were the cards you chose as 'safe' or 'unsafe' accurate? Discuss with your group. Review your rationale. What information was presented that either confirmed or changed your opinion?

REVIEW

Review your #MyFoodChoice Learning Chart and record what you've learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

After completing this activity, what questions do you still have about the safety of our food? How can you make informed food choices when considering food safety? Develop a strong inquiry question as a group. Check out the "Developing Inquiry Questions" section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

1. <http://licensetofarm.com/>

TEACHER NOTE

Video located on #MyFoodChoice webpage in the Food Safety Student Section.

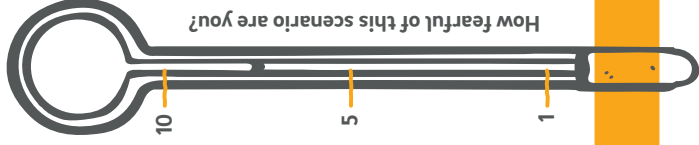
TEACHER NOTE

For more resources, check out www.licensetofarm.com

SCENARIO #1

You are scrolling through Facebook and see an article titled “The Cancer Causing Dangers of GMO Foods”. The next day, you are picking out some snacks for school. One bag says “Non-GMO”, and the less expensive bag doesn’t say anything. On a scale of 1 to 10, how fearful are you of the bag without a “Non-GMO” label?

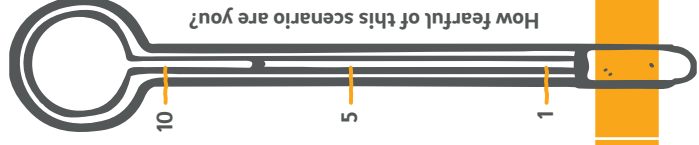
Fear Factor



SCENARIO #2

You are a consumer. Farmer A uses traditional pesticides, Farmer B uses organic approved pesticides, and Farmer C chooses not to use any form of pesticide. Which farmer, and their products, do you trust the least? Discuss. On a scale of 1 to 10, how trusting are you of pesticide use in modern agriculture?

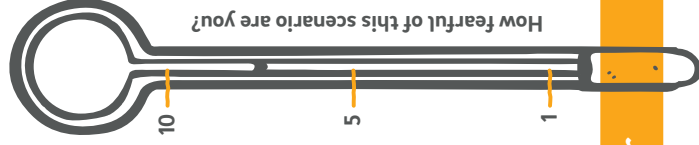
Trust Factor



SCENARIO #3

Picture a large farming operation that farms beef cattle, hogs, grain, and vegetables. Based on a wide variety of livestock and crops that this large operation produces, would you consider it a family farm, or a corporate farm? How much confidence do you have in this operation on a scale of 1 to 10. Discuss your answers with your group.

Confidence Factor





Lesson 3: Student-Led Inquiry

Topic: Economy

Why inquire about the economy and its relationship agriculture?

What if you were told that 1 in 8 Canadian jobs is in ag and agri-food sector. Can you list what some of those jobs might be when only 2% of Canada's population are farmers? These jobs help make Canada's economy sustainable. When making food choices, what is the economic impact?¹

QUESTION

In your group, discuss these questions: *What information do you think you already know? What further questions do you have? What information are you unsure of?* Record your responses on your #MyFoodChoice Learning Charts.

DO

As a group you have 25 minutes to create the "perfect country". List specific jobs and resources you would need to make your country the best it could be. Then, open up the scenario cards and respond to each scenario as directed.

Requirements for your country:

Open up the "Economy Simulation Worksheet." List all the possible careers and resources you would need for your country to be sustainable, profitable, and successful. Think food, shelter and what else you would need to survive. List all the possible resources you would need for your country. Shade in your farmable land, livable land and city land in three different colours. Every square on the map must be shaded in. Your country's population is 50 people:

- 1 square = enough farmland to feed 1 person
- 2 squares = enough livable land for 1 person
- 1 square = cities with businesses, grocery stores, schools, land for development, etc. (need at least 25 squares dedicated to businesses).

Scenario Card 1: Drought: Your country has experienced its first season of drought. Half of your crops have withered. Do you have enough crop left to feed your population? Do you have someone in your country who could solve this problem [e.g. a scientist who can create a drought-resistant crop]?

Scenario Card 2: Pests: A new bug called "Bug X" has infested your crops. It has destroyed 10% of your food supply. Can you feed your population with the food supply you have left? Do you have someone in your country who could solve this problem?

Scenario Card 3: Population Increase: The population in your country has doubled in size. Do you have enough farmable land and livable land to support a growing population?

Scenario Card 4: Education: It is now 50 years later. The people who were in the career roles you had originally listed have now retired. Did you consider education and training for the careers that you listed? Who will train people to fill those careers now?

REVIEW

Review your #MyFoodChoice Learning Chart and record what you've learned. In your small group, discuss what knowledge you have gained, what information you knew already, and any questions you may still have.

INQUIRE

After completing this activity, what questions do you still have about the economy and our food? Develop a strong inquiry question with your group. Check out the "Developing Inquiry Questions" section of the #MyFoodChoice website for more information. Your teacher will provide inquiry project presentation options for you.

1. <https://www.agriculturemorethanever.ca/resources/fact-photos/beef-production-contributed-51-billion-in-production-and-sales-to-canadas-economy/>

EXTENSION ACTIVITY

If you would like to further explore careers in agri-food with your students, check out **thinkAG** (www.aitc-canada.ca). Planet X is a thinkAG resource which links to a wide variety of courses in grades 9-12. Planet X gives students a 'mission' to select a team of professionals to address food production issues on a new planet in the year 2050. They will gain appreciation and knowledge of the multitude of professions that exist within agri-food, while also understanding the importance of everyday food production and sustainability to the global population.

SCENARIO #1

DROUGHT: Your country has experienced its first season of drought. Half of your crops have withered. Do you have enough crop left to feed your population? Do you have someone in your country who could solve this problem (e.g. a scientist who can create a drought-resistant crop)?

SCENARIO #2

PESTS: A new bug called "Bug X" has infested your crops. It has destroyed 10% of your food supply. Can you feed your population with the food supply you have left? Do you have someone in your country who could solve this problem?

SCENARIO #3

POPULATION INCREASE: The population in your country has doubled in size. Do you have enough farmable land and livable land to support a growing population?

SCENARIO #4

EDUCATION: It is now 50 years later. The people who were in the career roles you had originally listed have now retired. Did you consider education and training for the careers that you listed? Who will train people to fill those careers now?

Economic Simulation Worksheet

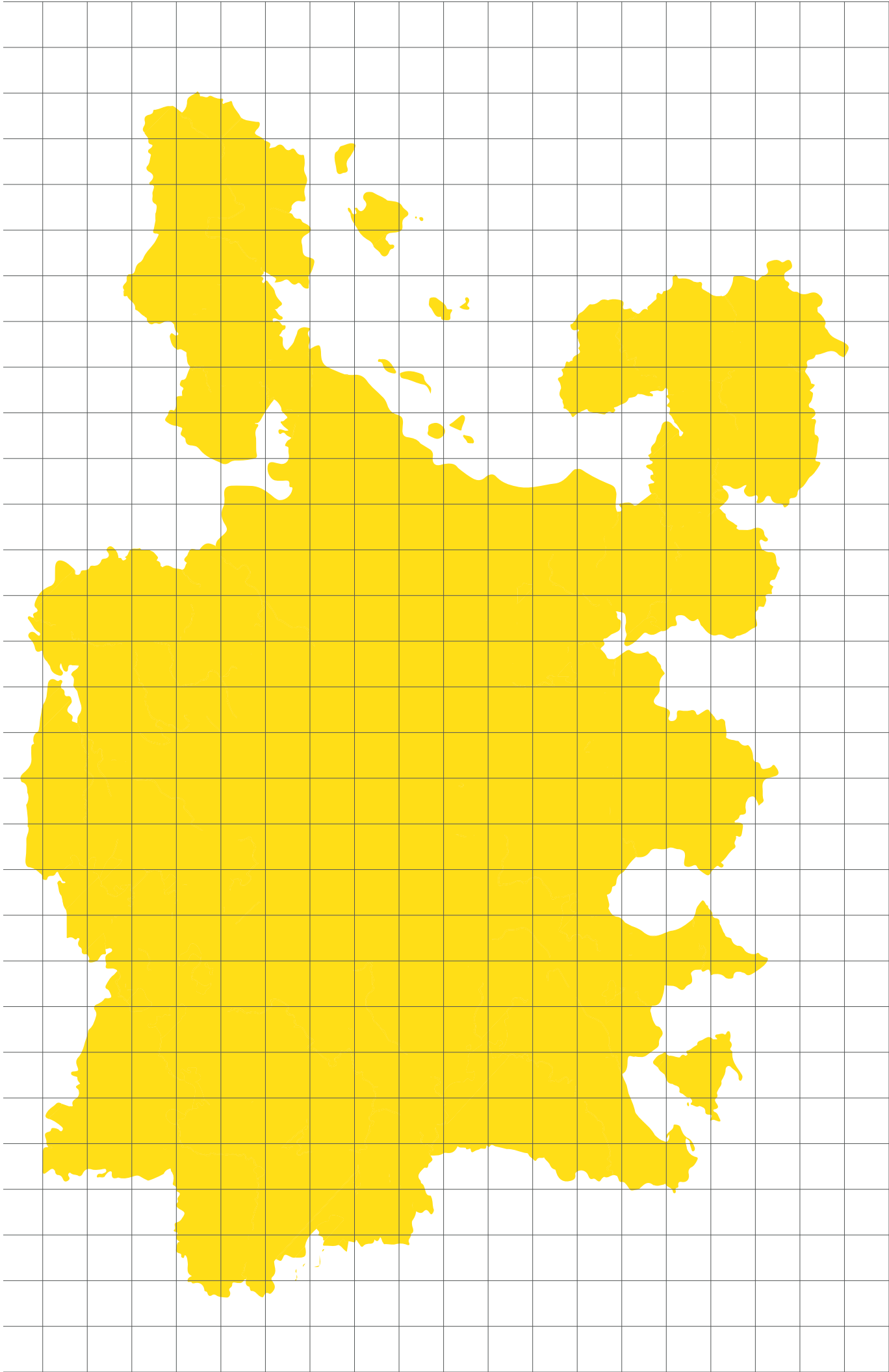
Country Name: _____

Your country's population is 50 people:

1 square = farmland to feed 1 person

2 squares = livable land for 1 person

1 square = cities with businesses, grocery stores, schools, land for development, etc. (need at least 25 squares dedicated to businesses)



Lesson 4: Research

In this lesson, students will:

1. Research their approved inquiry questions in small groups.
2. Use the student section of the #MyFoodChoice website for approved resources that are accurate, balanced, and current.
3. Get the information they need in order to answer their inquiry question and create a presentation or project.

Overview

After receiving teacher approval of their inquiry questions, students will use the approved resources listed on the #MyFoodChoice website to aid their research. These resources are accurate, balanced and current. Students may also use the Internet, books, industry people, community connections, etc. for information. Ensuring they are using reliable information from reliable sources.

Suggested time

- 2 class periods (approximately 120 minutes)

Materials required

- Access to technology (cell phone, computer, iPad, etc.) and a wifi connection
- #MyFoodChoice Learning Charts (completed with information and questions from Lessons 2 and 3)
- Graphic Organizer

Learning Activities

4. In groups, students will discuss and research their inquiry questions.
5. Students will continue to use their #MyFoodChoice Learning Chart to record information learned and further questions they have.
6. Students will begin synthesizing the information for their inquiry presentations (leading into Lesson 5: Inquiry Presentation Options)

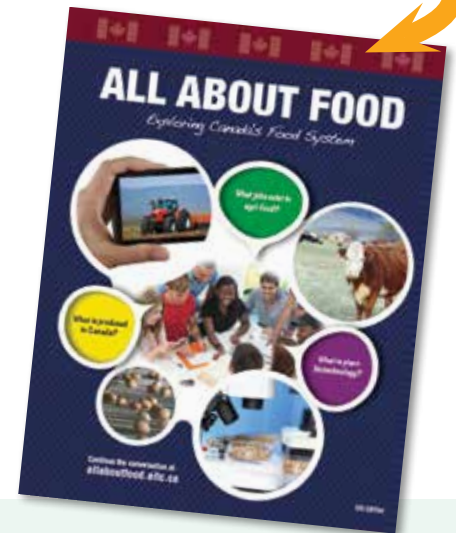
Assessment

- #MyFoodChoice Learning Chart Rubric
- References Page

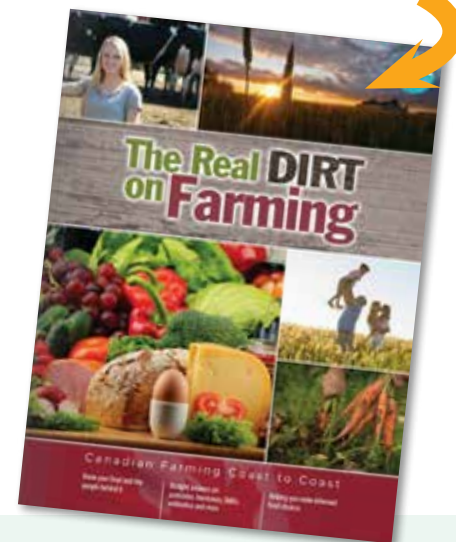
EXTENSION ACTIVITY

If you haven't practiced developing strong inquiry questions as a class, refer to the section "Develop Inquiry Questions" on the #MyFoodChoice website page and review together.

APPROVED RESOURCES



www.allaboutfood.aitc.ca



www.realdirtinfarming.com

TEACHER NOTE

See Student Section on #MyFoodChoice website for more approved resources.



Lesson 5: Inquiry Project Presentation

In this lesson, students will:

1. Choose a presentation method
2. Complete a peer assessment for their group.
3. Complete a self assessment.

Overview

Students will create their inquiry project presentation. Teachers have multiple options for inquiry projects listed below or they can use their own methods for presenting. Teachers can also give students the choice on how they want to present their information or some parameters can be given.

Suggested time

- 2 classes periods (approximately 120 minutes, depending on the type of presentations students choose)

Materials required

- Appropriate materials to allow students to create their presentations [technology, poster boards, PowerPoint, etc.]

Assessment

- #MyFoodChoice Learning Chart Rubric
- References Page



Appendix A: Inquiry Presentation Options

The presentation of information to the entire class is an important part of the inquiry process. It allows students to disseminate information on their own topic while learning about other topics from their peers. It also gives students an opportunity to reflect on the process as it unfolded and to share these insights with their peers. Students are encouraged to write down questions they develop during their peers' presentations. Finally, students will contribute a peer assessment of their choice (exit slips, mini quiz, etc.) to evaluate their peers' learning.

Students can choose their presentation method from the following options, or the teacher can provide other options.

Inquiry Fair

Just like a science fair, groups can create visuals for sharing the information that they learned throughout the inquiry process. Their visuals can link directly back to their inquiry questions. To ensure enough time to observe all presentations, the fair can take place over a couple periods or days. Half of the groups present on the first day and the other half present on the second.

PowerPoint/Video Presentation

Groups can create a PowerPoint or multimedia presentation of their inquiry project.

Action Project + Presentation

Groups can create action projects based on their inquiry questions by providing information that supports choices and outcomes of their projects.

Example: Groups will create a ten-day #MyFoodChoice Healthy Eating Plan. Students present what they changed in their lives (e.g. patterns of consumption) based on the information they found while researching. Guiding questions can include:

- a. How did you decide to make the changes to your current eating plan?
- b. What barriers did you anticipate?
- c. Did you have to draw up a budget for your healthy eating plan?
- d. What barriers came up during the challenge?
- e. What foods were the hardest to remove from your eating plan?

- f. What if you had a strict budget for your healthy eating plan? Could you still eat healthy food for 10 days if you were on a tight budget?
- g. Did you notice a change right away?
- h. Could you continue with your healthy eating plan past 10 days? If not, why?
- i. What data can you track in 10 days to show the validity of your healthy food choices and change?
- j. What else goes into a healthy eating plan?

Commercial or Short Video

Students can create a commercial or short video teaching their classmates what they have learned during their research.

#MyFoodChoice Learning Chart

Name: _____ Topic: _____

**What do you think
you know?**

**What questions do
you have?**

**What information
did you learn?**

**What questions do
you still have?**



#MyFoodChoice Blog Rubric

Name: _____

CRITERIA	0-1	2	3	4
Content: Viewpoint and Supporting Material	Postings present no specific viewpoint and do not provide supporting material (e.g.: examples, website links, documents); or material is inaccurate, biased, and/or outdated, and/or does not add any value to the information presented.	Postings present a specific viewpoint, but lack supporting material (e.g.: examples, website links, documents); or supporting material is provided, but some of it is inaccurate, biased and/or outdated, and/or does not enhance the information presented.	Postings present a specific viewpoint that is substantiated by supporting material (e.g.: examples, website links, documents) that is accurate, unbiased and current, but some material does not enhance the information presented.	Postings present a focused and cohesive viewpoint that is substantiated by supporting material (e.g.: examples, website links, documents) that is accurate, unbiased and current, and effectively enhances the information presented.
Content: Engagement	Postings do not stimulate dialogue and commentary, and do not connect with the audience.	Postings are brief and unimaginative, and reflect minimal effort to connect with the audience.	Postings are generally well written, with some attempts made to stimulate dialogue and commentary.	Postings are creatively and fluently written to stimulate dialogue and commentary.
Writing Quality	Postings contain numerous grammatical, spelling and/or punctuation errors. The writing style does not facilitate effective communication.	Postings contain some grammatical, spelling and/or punctuation errors that distract the reader.	Postings are mostly free of grammatical, spelling and/or punctuation errors. The writing style generally facilitates communication.	Postings are free of grammatical, spelling and/or punctuation errors. The writing style facilitates effective communication.
Feedback Notes				
Total Score				

Adapted from <https://www2.uwstout.edu/content/profile/rubrics/blogrubric.html>
 Word Version located on #MyFoodChoice website in Teacher Section



#MyFoodChoice Learning Chart Rubric

Name: _____

CRITERIA	0-1	2	3	4
“What do you think you know?” section of the Learning Chart	<p>Needs improvement</p> <p>Section is missing major items from the list prepared in class, and is incomplete.</p>	<p>Approaching expectations</p> <p>Section is missing two or more items from the list prepared in class.</p>	<p>Meets expectations</p> <p>Section is missing one item from the list prepared in class.</p>	<p>Exceeds expectations</p> <p>Section is not missing any items from the list prepared in class.</p>
“What questions do you have?” section of the Learning Chart	<p>Needs improvement</p> <p>Section contains no questions about what the student wishes to find out about the topic.</p>	<p>Approaching expectations</p> <p>Section contains 1-2 questions about what the student wishes to find out about the topic.</p>	<p>Meets expectations</p> <p>Section contains 3-4 questions about what the student wishes to find out about the topic.</p>	<p>Exceeds expectations</p> <p>Section contains 5+ questions about what the student wishes to find out about the topic.</p>
“What information did you learn?” section of the Learning Chart	<p>Needs improvement</p> <p>Section lists no points about what the student learned about the topic.</p>	<p>Approaching expectations</p> <p>Section lists 1-3 points about what the student learned about the topic.</p>	<p>Meets expectations</p> <p>Section lists 4-6 points about what the student learned about the topic.</p>	<p>Exceeds expectations</p> <p>Section lists 7+ points about what the student learned about the topic.</p>
“What questions do you still have?” section of the Learning Chart	<p>Needs improvement</p> <p>Section contains no questions about what else the student wishes to find out about the topic.</p>	<p>Approaching expectations</p> <p>Section lists 1-2 questions about what else the student wishes to find out about the topic.</p>	<p>Meets expectations</p> <p>Section lists 3-4 questions about what else the student wishes to find out about the topic.</p>	<p>Exceeds expectations</p> <p>Section lists 5+ questions about what else the student wishes to find out about the topic.</p>
Feedback Notes				
Total Score				

Adapted from <http://www.rcampus.com/rubricshowc.cfm?code=Y7W32B6sp=true>
 Word Version located on #MyFoodChoice website in Teacher Section



#MyFoodChoice Inquiry Project Rubric

Name: _____

CRITERIA	0-1	2	3	4
Inquiry Question	The inquiry question developed could be answered with little/no research.	The inquiry question developed required some research.	The inquiry question developed required research, which prompted new questions.	The inquiry question developed required research from multiple areas, and prompted new questions.
Research	No research was done, or unapproved resources (containing information that is inaccurate, opinion-based and outdated) were used.	Research was done using a few approved resources containing information that was accurate, balanced and current.	Research was done using many approved resources containing information that was accurate, balanced and current.	Research was done using an exceptional number of approved resources containing information that was accurate, balanced and current.
Information Accuracy	No information was used from resources, or limited information was used from resources that were inaccurate, opinion-based and outdated.	Used a mixture of accurate, balanced, current information from approved resources; and inaccurate, opinion-based, outdated information.	Used information that was accurate, balanced and current.	Used accurate, balanced and current information from a wide variety of resources.
Connections	Made no/few connections between project work and the world beyond the school.	Some connections were made between project work and the world beyond the school.	A variety of connections was made between project work and the world beyond the school.	A wide variety of connections was made between project work and the world beyond the school.
Creative and Critical Thinking	Demonstrated no / limited effective creative and critical thinking in order to create final product and reflect on learning.	Demonstrated limited effective creative and critical thinking in order to create final product and reflect on learning.	Demonstrated effective creative and critical thinking in order to create final product and reflect on learning.	Demonstrated highly effective creative and critical thinking in order to create final product and reflect on learning.
Feedback				
Total Score				

Word Version located on #MyFoodChoice website in Teacher Section



#MyFoodChoice Oral Presentation Rubric

Name: _____ Topic: _____

(Poor → Excellent)

1 2 3 4

PRESENTATION SKILLS

Were the main ideas presented in a logical order?

Did the speaker maintain the audience's interest?

Did the presentation contain a theme or "take-home message"?

Was the presenter responsive to the audience's questions?

KNOWLEDGE BASE

Was adequate background information given about the topic?

Was adequate and appropriate material selected for this presentation?

Was enough essential information given to allow the audience to evaluate their stance on the topic?

Was irrelevant or "filler" information excluded?

Did the presenter demonstrate a clear understanding of the material presented?

CRITICAL THINKING

Were the main points about this topic clearly identified?

Did the presenter make recommendations about further work in this area?

Did the main conclusion(s) follow logically from the material presented?

Were competing explanations and/or theories considered and dealt with effectively?

TOTAL SCORE _____ / 52

COMMENTS: _____

Steps to Your #MyFoodChoice Inquiry Research Project

STEP 1: WONDER

Write three "Wonder Questions" about your topic:

- 1 _____
- 2 _____
- 3 _____

Use your wonderings to identify your Inquiry Question:

- ? _____

REMEMBER

A GREAT INQUIRY QUESTION:

- IS IMPORTANT TO YOU
- IS BACKED UP WITH RESEARCH
- IS RELEVANT TO YOUR TOPIC

STEP 2: FIND

Find three resources to use that are accurate, balanced, and current.

- 1 _____
- 2 _____
- 3 _____

RESEARCH

WRITE NOTES, LOOK FOR ANSWERS, AND FIND CONNECTIONS BETWEEN THE INFORMATION AND YOUR QUESTION.

Did you find the answer to your question?

Did you find connecting information?

Do you need to change your question?

STEP 3: SHARE

Take a look at your research. What is the best way to share what you've learned?

IDEAS

POSTER
TALK SHOW
GAME SHOW
COMMERCIAL
DIAGRAM
SKIT/PLAY

ARTICLE
MAGAZINE
NEWSPAPER
POWERPOINT
SONG
BROCHURE

What is your plan?

Let your teacher know the plan!
Sign your Inquiry Contract here:



Name: _____

Topic: _____



Thank You

Agriculture in the Classroom Canada (AITC-C) would like to sincerely thank the many individuals and organizations that support its resources, programs and initiatives.

Thank you to the following educators for participating in the review process and contributing valuable ideas, feedback and expertise in developing this resource:

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- Susanne Kwiatkowski
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#MyFoodChoice

Our Members



AGRICULTURE IN THE CLASSROOM CANADA

For more educational resources, visit www.aitc-canada.ca, email us at info@aitc-canada.ca, or call toll free **1-833-248-2226 (1-833-AITCCAN)**

