

# MB Ag Days Adventure Virtual Resource

## TEACHER GUIDE (Grade 7)

Welcome to Agriculture in the Classroom – Manitoba's virtual **MB Ag Days Adventure Resource**. This virtual offering of our resource has two parts:

### PART 1: THINK GLOBAL – AGRICULTURE & OUR WORLD VIRTUAL LEARNING EXPERIENCE, SEE P. 3

This virtual learning experience is designed to increase students' awareness of the essential and global nature of agriculture. Although agriculture provides us with fibre, many ingredients used in everyday items and alternate biofuels, in this resource students will focus on its primary goal which is the production, processing, and distribution of safe, healthy food to meet the global, basic human need to eat.

In Part 1 students will:

- Define agriculture
- Explore Canada's connection to the world through agricultural trade
- Identify how agriculture and trade impact their personal lives
- Compare population and land distribution across six continents
- Describe the trends in world population growth and distribution and how agriculture has impacted and is impacted by these trends
- Define food security
- Describe food security in the six continents and discover agriculture's role in improving food security

#### AGRICULTURE'S IMPACT ON THE 2019 MANITOBA ECONOMY

- \$18.3 billion in total output
- \$11.5 billion in direct sales
- \$9.2 billion in GDP
- \$4 billion in labour income
- 105,178 total jobs
- 40,830 agriculture jobs

### PART 2: ACT LOCAL – AGRICULTURE & MANITOBA, SEE P. 8

MB Ag Days, Canada's largest indoor farm show, is the backdrop to this video which explores the depth, diversity, economic impact, and job opportunities in agriculture in our province and beyond.

In Part 2 students will:

- Discover how their interests in subjects like science, math, technical courses, English etc. relate to the diverse job opportunities in agriculture
- Identify that agriculture jobs are found in:
  - Rural and urban areas
  - Locally, nationally, and globally
- Outside in places like fields and watersheds and inside in places like laboratories, IT offices, classrooms, news departments, food processing facilities, machine shops etc.
- Explore agricultural career opportunities using virtual tools (optional)



Agriculture, a foundational industry in Manitoba, Canada and throughout the world, provides many career opportunities requiring diverse interests, skills, and levels of education.

- There are over 2.3 million agriculture and agri-food jobs in Canada. Farmers represent only 0.3 million of those jobs.
- Agriculture is an essential industry that will always employ people now and in the future.
- There are currently many job vacancies in agriculture and demand for skilled workers is projected to increase by 15% over the coming decade.
- Agriculture stewards many of our natural resources and is an industry that can provide people with the tools and opportunities to develop solutions for mitigating climate change and improving food security.

## Curriculum Connections

Grade 7 Social Studies	
Cluster 1	
7-KL-016	Locate on a world map the continents, major landforms, and major bodies of water.
7-VL-008	Appreciate the diversity of the global natural environment.
7-KL-018	Locate on a world map the major population clusters and explain the relationship between population distribution and the natural environment.
Cluster 3	
7-KL-009	Identify elements that all societies have in common. <i>Examples: social structure, communication, art, beliefs, technology, governance, economic organization...</i>
7-KL-022	Identify on a map the major cities, landforms, and bodies of water of a society of Asia, Africa, or Australasia.
7-KL-013	Describe factors that affect health in a society of Asia, Africa, or Australasia. <i>Examples: access to safe water, food, and medical care; AIDS and other epidemics...</i>
7-KE-046	Identify major economic activities in a society of Asia, Africa, or Australasia.
Cluster 4	
7-KL-024	Identify on a map the major cities, landforms, and bodies of water of a society of Europe or the Americas.
7-KE-050	Identify major economic activities in a society of Europe or the Americas.
7-KL-025	Give reasons for increased urbanization in a society of Europe or the Americas. <i>Examples: housing, access to services, employment, industry...</i>
7-KE-052	Identify issues related to food production and distribution in a society of Europe or the Americas.

# PART 1: THINK GLOBAL - AGRICULTURE & OUR WORLD VIRTUAL LEARNING EXPERIENCE

Suggested Delivery Options:

- Option A - Teacher Led Classroom Experience, see p.3
- Option B - In-class Independent Student Learning Experience, see p.9
- Option C - Remote Student Learning Experience, see p.9

## OPTION A - TEACHER LED CLASSROOM EXPERIENCE

The Virtual Learning Experience, **Think Global – Agriculture & Our World**, is divided into 5 sections:

1. What is Agriculture?
2. Global Agricultural Trade
3. World Population
4. Global Land Distribution
5. Global Food Security

The teacher led classroom experience gives students the opportunity to work through each section of the virtual experience, **Think Global – Agriculture & Our World** independently on their own device.

At the end of each section, students will come to the **Stop and Discuss** prompt.

At this point, students come back together as a class to share what they learned in that section generally and/or about their assigned continent and compare their findings to those of other students who are exploring other continents.

This also provides you, the teacher, with a chance to **assess** the student's learning and extend it in areas of interest. To introduce **Think Global – Agriculture & Our World** and to assist with the class discussion and assessment, use the **Class Discussion PowerPoint** listed in the materials.

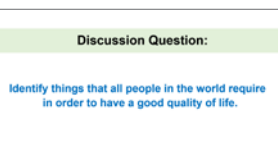
## Suggestions for class delivery

### ➡ Activate

Project the discussion question on slide 1 of the **Class Discussion PowerPoint** on your classroom screen.

Have the students identify things that all people in the world require in order to have a good quality of life.

(Answers could include food, water,



## MATERIALS NEEDED

- Computer, projector, and screen
- Class Discussion PowerPoint for projection and Answer key, which can both be found at [MB Ag Days Adventure Virtual Resource - Teacher Page](#).
- One device (tablet, laptop) with Wi-Fi connection per student.
- Provide each student with the link to the virtual **Think Global - Agriculture & Our World – Teacher-Led Version**.

shelter, health care, safety, education, freedom.)

Tell students that we are going to look more closely at one thing all people require – food to eat and the essential industry responsible for providing that food - agriculture.



Play the *What is Agriculture?* video (1:12 minutes), embedded on the next PowerPoint slide.

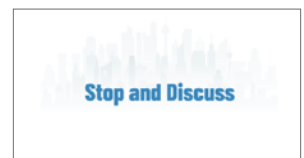
Then move to the title slide. Let students know that they will be completing the **Think Global - Agriculture & Our World virtual learning experience** on their devices. Explain that this virtual activity is divided into 5 sections:



- Agriculture
- Trade
- World Population
- Land Distribution
- Food Security

Go to the next slide, the **Stop and Discuss** slide, on the **Class Discussion PowerPoint**.

Explain that each time they come to this **Stop and Discuss** slide at the end of a section, they are to stop and be prepared to share what they have learned.



Provide each student with a Wi-Fi connected device and the link to **Think Global - Agriculture & Our World learning experience Teacher-Led Version**.

**THINK GLOBAL - AGRICULTURE & OUR WORLD****SECTION 1: WHAT IS AGRICULTURE?****➡ Acquire**

Have students work through the [Think Global - Agriculture & Our World](#) instructions and complete *Section 1: What is Agriculture?* Remind students to stop when they come to the **Stop and Discuss**.

**➡ Assess**

Once students have reached the **Stop and Discuss** slide in the activity on their devices, assess their learning by discussing the three agriculture discussion questions found on slides 6 - 8 of the [Class Discussion PowerPoint](#).

See the [Answer Key](#) for answers to the questions.

Agriculture Discussion Questions:	Agriculture Discussion Questions:	Agriculture Discussion Questions:
1. What is Agriculture?	2. How are you connected to agriculture?	3. a. Do you know anyone who works in agriculture? b. Do they work in: i. Production? Are they a farmer or do they provide services or products to farmers? ii. Processing? Does that person work in a facility that brings in product from farms and processes them into a finished product for us to buy at the grocery store? What food product? iii. Distribution? Does this person transport agriculture or food products? Do they sell food products to consumers?

**SECTION 2: GLOBAL AGRICULTURAL TRADE****➡ Acquire**

In this section of the activity, students will need to select a continent.

Therefore, **before** they continue in the activity, **assign 1/6 of your students to each continent; Africa, Asia, Europe, North America, Oceania, and South America**, so that all the continents can be discussed and compared by your class.

Move to slide 9 of the PowerPoint and remind students to stop when they reach the **Stop and Discuss** slide in the activity.

Then have students play through the *Agricultural Trade* section.

**➡ Assess**

The two assessment questions are on slides 10 - 11 of the [Class Discussion PowerPoint](#) presentation. Answers are in the [Answer Key](#).

Global Trade Discussion Questions:	Global Trade Discussion Questions:
1. What foods would you no longer be able to eat in Canada if we stopped importing all food produced in other countries? Why?	2. If Canada stopped exporting agriculture products, how do you think this would affect: a. Agriculture jobs in Canada b. Farmers in Canada c. Canada's economy and balance of trade d. Other countries in the world?

### SECTION 3: WORLD POPULATION

Move to slide 12 of the [Class Discussion PowerPoint](#) and remind students to stop when they reach the **Stop and Discuss** slide at the end of the *Population* section. Then have students play through the *Population* section.

**Assess** student learning using the five discussion questions on [Class Discussion PowerPoint](#) slides 13 – 17.

<p><b>Population Discussion Questions:</b></p> <p>1. Identify the percentage of world population that lives in each continent today.</p>	<p><b>Population Discussion Questions:</b></p> <p>2. Why do you think the world population has increased and is predicted to continue increasing?</p>	<p><b>Population Discussion Questions:</b></p> <p>3. Which of these phrases best describes how the population in your continent is predicted to change between 2020 and 2050?</p> <ul style="list-style-type: none"> <li>a. Slowly increase</li> <li>b. Rapidly increase</li> <li>c. Slowly decrease</li> </ul>
<p><b>Population Discussion Questions:</b></p> <p>4. Between 1960 and 2020 and beyond, we see a change in the amount of people in the world that live in urban areas rather than rural areas. What has the general trend been?</p>	<p><b>Population Discussion Questions:</b></p> <p>5. a. What has made it possible for farmers to produce enough food to feed the increased world population?</p> <p>b. Why has this made it possible for more people to move into cities?</p>	

### SECTION 4: LAND DISTRIBUTION

Move to slide 18 of the [Class Discussion PowerPoint](#) and remind students to stop when they reach the **Stop and Discuss** slide at the end of the *Land Distribution* section. Then have students play through the *Land Distribution* section.

**Assess** student learning using the three discussion questions on slides 19 - 21.

<p><b>Land Distribution Discussion Questions:</b></p> <p>1. What fraction of the land in your continent can be used for agriculture?</p>	<p><b>Land Distribution Discussion Questions:</b></p> <p>2. Identify reasons why the rest of the land in your continent cannot be used for agriculture.</p>	<p><b>Land Distribution Discussion Questions:</b></p> <p>The world population is increasing, so more food is needed. The amount of agriculture land is decreasing, and we want to preserve and expand remaining wildlife areas, not convert them to farmland.</p> <p>3. What suggestions do you have to meet the challenge of producing more food on less land, using less water and fossil fuel energy?</p>
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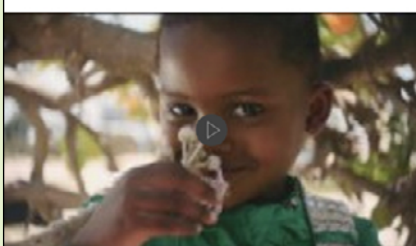
## SECTION 5: GLOBAL FOOD SECURITY

Show the *What is Food Security?* video (2:21 minutes), on slide 22 of the **Class Discussion PowerPoint**.

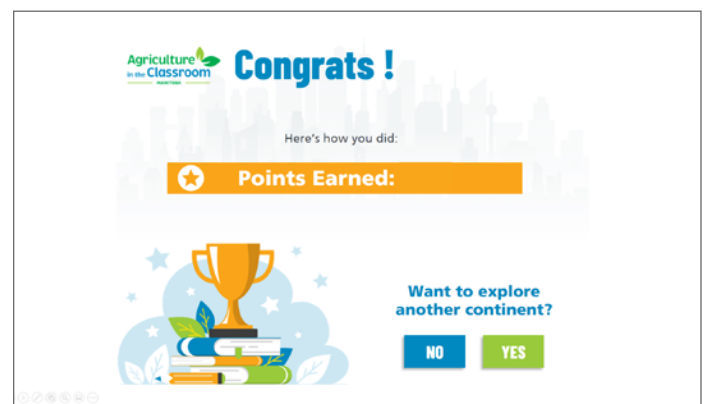
Move to the next **Stop and Discuss** slide and remind students to stop when they reach that slide at the end of the *Food Security* section. Then have students play through the *Food Security* section.

**Assess** student learning using the four discussion questions on slides 25 - 27, & 30. (Optional: show video(s) on slides 28 or 29.)



<p><b>Land Distribution Discussion Questions:</b></p> <p>The world population is increasing, so more food is needed. The amount of agriculture land is decreasing, and we want to preserve and expand remaining wildlife areas, not convert them to farmland.</p> <p>3. What suggestions do you have to meet the challenge of producing more food on less land, using less water and fossil fuel energy?</p>	<p><b>Food Security Discussion Questions:</b></p> <p>1. How food secure is your continent?</p> <p><a href="http://www.fao.org/state-of-food-security-nutrition/2.1.1/en/">http://www.fao.org/state-of-food-security-nutrition/2.1.1/en/</a></p>	<p><b>Food Security Discussion Questions:</b></p> <p>2. Why is a successful agriculture industry essential to ensuring food security?</p>
 <p>Women Need One Thing: A Hand Up, World Food Program USA</p>	 <p>Female Farmers + Food Storage = 98% Less Food Loss, World Food Program USA</p>	<p><b>Food Security Discussion Questions:</b></p> <p>Between 1990 and 2015, the number of hungry people decreased from 1 billion to 815 million, while the world's population increased from 5.3 billion to 7.3 billion. But since then, the number of hungry people has been slowly increasing. The UN states that the main reasons for this increase are war and climate change.</p> <p>4. a. Explain how you think war affects agriculture and leads to more hungry people. b. Explain how climate change affects agriculture and leads to more hungry people. c. Suggest ways we can overcome these food security obstacles: i. War ii. Climate change</p>

Have students finish the learning experience to discover their final score. Students may explore another continent at this time or exit the experience.



## OPTION B - IN-CLASS INDEPENDENT STUDENT LEARNING EXPERIENCE

### MATERIALS NEEDED

Provide the students with:

- o Link to the virtual **Think Global - Agriculture & Our World learning experience Student-Led Version**. (The link can be found on the [MB Ag Days Adventure Virtual Resource - Teacher Page](#).)
- o One device (tablet, laptop) with earphones and a Wi-Fi connection.
- o Link to the **Think Global – Agriculture & Our World Kahoot**. (The link can be found on the [MB Ag Days Adventure Virtual Resource - Teacher Page](#).)

\*The **Think Global - Agriculture & Our World Student-Led Version** is the same as the teacher led version except it includes the videos and contains no **Stop and Discuss** slides.

In the **Think Global – Agriculture & Our World virtual learning experience**, students pick which continent(s) they want to explore. Students have the option to play as many times as they like choosing a different continent each time.

As per the Grade 7 Social Studies curriculum, it is suggested that students explore the learning experience at least twice. The first time they could explore one of these continents: Asia, Africa, or Oceania. The second time they could explore one of these continents: Europe, North America, or South America.

Have students play the activity from start to finish.

The **Think Global - Agriculture & Our World virtual learning experience** is divided into 5 sections:

1. What is Agriculture?
2. Global Agricultural Trade
3. World Population
4. Global Land Distribution
5. Global Food Security

Section 1 will introduce your students to agriculture and set them up for the learning experiences in Sections 2 – 5. Interactivity and assessment are built in throughout the learning experience.

The **Think Global – Agriculture & Our World Kahoot** can be used to assess the students' and classes' overall learning and spark discussion on related topics of interest.

## OPTION C - REMOTE STUDENT LEARNING EXPERIENCE

\*The **MB Ag Days Adventure Virtual Resource - Remote Student Page** contains step-by-step instructions and links to all materials that students will need to complete the following:

### Part 1:

- *Think Global – Agriculture & Our World virtual learning experience*
- *Think Global – Agriculture & Our World Assessment Kahoot*

### Part 2:

- *Pre and post video questions*
- *Act Local – Agriculture & Manitoba video*

### MATERIALS NEEDED

- Provide the students with the link to the **MB Ag Days Adventure Virtual Resource – Remote Student Page**. (The link can be found on the [MB Ag Days Adventure Virtual Resource - Teacher Page](#).)
- One device (tablet, laptop) with Wi-Fi connection.



## PART 2: ACT LOCAL - AGRICULTURE & MANITOBA

### Suggestions for class delivery

#### ➡ Activate

Before showing the [Act Local– Agriculture & Manitoba video](#), ask students to name as many agriculture jobs as they can. List these jobs on the board.

Then, ask the students if any of them have considered a future career in agriculture. List any careers that are being considered and ask students what interests them about each career.

#### ➡ Acquire

Watch the [Act Local– Agriculture & Manitoba video](#).

#### ➡ Assess

Have students identify any more agriculture careers that could be added to the list.

Ask if any other students would now consider a future career or a different future career in agriculture. Why or why not?

If yes, then what career would interest them and why.

#### MATERIALS NEEDED

- Computer, projector, and screen
- Act Local– Agriculture & Manitoba video (The link can be found on the [MB Ag Days Adventure Virtual Resource - Teacher Page](#).)

#### Extension Activity:

[Planet X](#) – virtual resource. This interactive resource casts students as ‘headhunters’ tasked with finding the best employees for agriculture job openings on the new experimental farm operation on *Planet X*.

#### Websites:

[ThinkAG](#) – students identify their talents and interests and then explore agriculture and food careers that match their interests.

Note: *Part 2: Act Local - Agriculture & Manitoba* is also included in the *Option C - Remote Student Learning Experience* on the page above.