



THE HAVEN PROJECT

An Audio Drama about the Future of Food

Lesson Plan
Grade 11-12

UNIVERSITY
of GUELPH

IMPROVE LIFE.

ARRELL
FOOD INSTITUTE
AT THE UNIVERSITY of GUELPH



AgScape®

About This Lesson Plan

Curriculum connections designed in August 2020.

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LESSON PLAN: THE HAVEN PROJECT

ABOUT THIS LESSON

How can we create a future without hunger? Following along with The Haven Project audio drama, students will explore the role of individuals and governments in creating change, research real life food security issues, and communicate their findings by designing a website and participating in a class debate.

The Haven Project audio drama can be found on our website, feeding9billion.com, or through [Google Podcasts](#), [Apple Podcasts](#), or [Spotify](#). Full transcripts of each episode are also available on our website.

TIMELINE

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
INTRODUCTION TO THE HAVEN PROJECT	POLITICS AND THE INDIVIDUAL	SUSTAINABLE FOOD	GOOGLE SITES MINI LESSON + WORK PERIOD	THE FOOD WE EAT
DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
DEBATE MINI LESSON + WORK PERIOD	EVOLUTION OF AGRICULTURAL LABOUR	REFERENCING MINI LESSON + WORK PERIOD	WORK PERIOD + GOOGLE SITES DUE BEFORE CLASS	DEBATE DAY

DIGITAL TOOLS USED IN THIS PLAN

Several of the activities in this lesson plan use collaborative online applications to increase engagement and support remote learning.

Flipgrid (flipgrid.com) is an online message board where students can engage through video responses to topics posted by teachers. For this lesson plan, you will need to set up your own grid (message board) and topics (one for each episode of the podcast, starting with episode 2). You will also need to add your students to your grid so they can respond to your topics.

- The Educator's Guide to Flipgrid (Version 4) by Sean Fahey, Karly Moura, & Jennifer Saarinen: https://static.flipgrid.com/docs/Flipgrid_eBook_2nd_edition.pdf

Padlet (padlet.com) is another online message board that you can use to communicate with your class. Padlet will be used in this plan to coordinate interactive in-class research.

- Padlet Support page with How-To Guides: <https://padlet.com/support>

MindMup ([mindmup.com](https://www.mindmup.com)) is an online collaborative mind mapping app. MindMup can be linked to your Google Drive if you want to save and share ideas.

- MindMup Tutorials and Guides: <https://www.mindmup.com/tutorials/>

Google Sites (sites.google.com) is a basic website builder that allows collaboration between multiple editors.

- Google Sites help: <https://support.google.com/sites/>

CURRICULUM EXPECTATIONS

This plan aligns with the following expectations from strand A for all Grade 11 and 12 geography courses in the Ontario Curriculum:

Throughout these courses, students will:

- A1. use the geographic inquiry process and the concepts of geographic thinking when investigating world issues (A1.1, A1.5, A1.6, A1.7, A1.8)
- A2. apply in everyday contexts skills developed through geographical investigation, and identify careers in which a background in geography might be an asset. (A2.3, A2.4)

Forces of Nature: Physical Processes and Disasters, Grade 11 (CGF3M)

Throughout this course, students will:

- C1. analyse the role of physical processes and human practices in maintaining a sustainable natural environment (C1.3)
- C3. analyse the influence of physical processes and features on human activity (C3.1)
- D1. analyse issues relating to natural and human impacts on the environment and the sharing of natural resources between population groups (D1.2)
- E1. analyse impacts of physical processes and disasters on human and natural systems, locally, nationally, and globally (E1.3)

World Issues: A Geographic Analysis, Grade 12 (GCW4U)

Throughout this course, students will:

- B2. analyse relationships between demographic and political factors and quality of life for various countries and regions (B2.3)
- C1. analyse strategies and initiatives that support environmental stewardship at a national and global level, and assess their effectiveness in promoting the sustainability of the natural environment (C1.1, C1.2, C1.4, C1.5)
- E1. analyse the influence of governments, groups, and individuals on the promotion and management of social change (E1.2)
- E2. analyse impacts of selected agents of change on society and quality of life (E2.1, E2.2)
- E3. analyse issues relating to human rights, food security, health care, and other challenges to the quality of life of the world's population (E3.4)

World Issues: A Geographic Analysis, Grade 12 (CGW4C)

Throughout this course, students will:

- B1. analyse interrelationships between social conditions, access to natural resources, government policies, and economic disparities within and between countries or regions (B1.1, B1.2)
- C1. analyse the role of individuals, the local community, and governments in achieving sustainability, and assess opportunities for personal stewardship and involvement in sustainability initiatives (C1.2)
- C3. explain the meaning and significance of the global commons, and analyse issues associated with the use and sustainability of its various elements (C3.2)

World Geography: Urban Patterns and Population Issues, Grade 12 (CGU4M)

Throughout this course, students will:

- C1. analyse impacts of human activity and human settlements on the environment, and assess the effectiveness of solutions to these impacts in selected ecumenes (C1.2)
- C2. assess ways in which stewardship practices can contribute to the sustainability of human settlements (C.2.1, C2.2, C2.3)
- D1. analyse impacts of public opinion and policy on interactions within and between ecumenes (D1.3)
- D3. analyse the effects of international assistance and formal and informal international economic activity on quality of life in developed and developing countries (D3.1)

The Environment and Resource Management, Grade 12, (CGR4M)

Throughout this course, students will:

- C1. analyse the roles and contributions of individuals, governments, and organizations with respect to the sustainable management of the world's natural resources (C1.2)
- E1. assess a variety of strategies for resolving environmental and natural resource management issues, locally, nationally, and/or globally (E1.1, E1.3)
- E3. analyse impacts of various human behaviours on the natural environment, and assess the role of behaviour, ethics, and technology in reducing these impacts (E3.4)

Living in a Sustainable World, Grade 12 (CGR4E)

Throughout this course, students will:

- C1. assess the contributions of stewardship initiatives by groups and individuals to the sustainable use and management of natural resources, locally, nationally, and globally (C1.1)
- D1. assess the role of various strategies, organizations, and agreements in reducing the impact of human activity on the environment (D1.1, D1.2)
- E1. assess the contribution of various individual, workplace, and community initiatives to reducing the human impact on the natural environment (E1.2)

BEFORE THE FIRST LESSON: DRAWING SQUARES ACTIVITY

1. In the last class session before you begin this lesson plan, give each student a **5" x 5" square of thick paper or bristol board**.
2. Tell students that, for homework, you would like them to draw what comes to mind when they think of the future. Try to encourage them to think creatively, without leading them to an answer. They could draw buildings, technology, individuals, specific items, diagrams, or try to capture a certain feeling. They can include labels if they would like, but the majority of the paper should be filled with drawing. Students should write their names on the back of their squares, along with a sentence or two description of what they drew.
3. This activity can also be done using Flipgrid, Google Docs, or any other shared platform. The size of the paper is not important. The aim is to explore what can be elicited through nonverbal communication of ideas.

DAY 1: INTRODUCTION TO THE HAVEN PROJECT

Guiding Questions

What will the world be like in the future? How can we affect what happens in the future?

Materials Needed

- [The Haven Project: Episode 1](#)
- [The Haven Project Student Booklets, Day 1](#)

Minds On

1. Lay the student drawings out around the classroom so that everyone can examine them without crowding. Give students ten minutes to walk around and look over the drawings from their peers.
2. Hand out **The Haven Project Student Booklets**. Ask students to reflect on and answer the questions in the Day 1 section of their **Student Booklet**. Did they notice any common themes among the drawings? Are the futures depicted in the drawings plausible? What would they like to see in the future, and what can we do to bring a positive future into reality? Have students form pairs to discuss what they wrote, and select one or two pairs to share their discussion with the class.
3. Either return the drawings, or display them in the classroom somewhere.

Action

1. Tell the class that over the next couple of weeks, you will be following a story about a community living in one plausible version of the future, based on evidence from our world in the present. Ask them to listen for clues to what this world is like as you listen to the first episode, and record their notes in their **Student Booklets**. Listen to [The Haven Project: Episode 1](#) as a class.
 - a. Pause after the first scene ends (5:38), and ask the class what they can tell about the world in the audio drama so far. Have students add to their own notes as you discuss.
 - b. Pause at the end of the second scene (9:45), and ask if the class has learned anything new about the world Haven exists in? Can they think of any trends in our world that could lead to this version of the future (e.g. unchecked climate change, social inequality, us vs. them thinking)?
 - c. In pairs, ask students to discuss why Marlene and Thomas might have developed such different viewpoints. Who do they agree with more? Come back to discuss as a class.

Conclusion and Consolidation

1. Considering the trends discussed in 1b) above, discuss as a class what role governments play in shaping the future? What role do individuals play?

Homework

Give students your custom Flip Code, and either have them sign in with their school emails or assign them student IDs. Their homework will be to listen to [Episode 2](#) of The Haven Project, and post a one to two minute video that summarizes the episode in the matching grid topic, following the prompts and taking notes in Day 1 of their **Student Booklets**.

Make sure to add students to your grid first, tell them how to log in (school email or ID numbers assigned by you), and create a topic dedicated to Episode 2! You could also create a flipgrid summary of episode 1 yourself, and show it to the class as an example in the first lesson.

Opportunities for Assessment

- **Observation:** Paired discussions; note taking
- **Conversation:** Class discussions
- **Product:** future drawings; Student Booklet notes

DAY 2: POLITICS AND THE INDIVIDUAL

Guiding Questions

How can individual values and beliefs change public opinion? Do individuals have a responsibility to collaborate to solve issues of environmental sustainability?

Materials Needed

- [The Haven Project Student Booklets, Day 2](#)
- 2 x [The Haven Project Political Spectrum \(p.30\)](#) (print and cut out two copies: one for parties from Haven and one for parties from the Outsider City)

Minds On

1. Ask one student to volunteer to share their Flipgrid summary of [Episode 2](#).
2. As a class, discuss:
 - Whether anyone has anything to add to the summary?
 - How do the situations in Haven and the City differ? What might have led to these differences? (E.g. availability of natural resources, differences in political policies, population density, individual values and beliefs, security, etc.)

Action

1. Introduce four corners activity. Tell students that you will present them with an issue, and they should go stand in the corner of the room that best represents their opinion. Set up 4 corners to represent strongly agree, agree, disagree, strongly disagree. (You may want to place signs to signify which corner is which.)
 - a. Choose a food-related issue that you think would be controversial to your class. Examples include: Should stores be able to sell genetically modified foods? Do you agree with implementing a universal basic income to reduce food insecurity? Should the government support school lunch programs?
 - i. Once students have settled into their corners, count the results for each and record these on the board. Students should also note this in their **Student Booklets**.
 - ii. Give these opinion groups a few minutes to come up 3 reasons to support their opinion, and allow each group to present these reasons in an attempt to convince the students from other groups to change their minds.
 - iii. After each group has explained their reasoning, tell students that they can change corners if they would like.
 - iv. Recount totals for each corner and record the results on the board.
 - b. Allow students to sit back in their seats, and lead a discussion about the role of individuals in influencing a community, and how our daily lives can be affected by engaging in political discussion and voting in elections.
2. Introduce the culminating project (requirements and expectations are detailed on p.26-29 of this document, and in the **Student Booklets**). Tell students that they will be working in groups to represent different political parties campaigning for election in either Haven or

the Outsider City. They will build a political platform that covers major issues in each of these communities, and communicate their stance on these issues by designing a website and participating in a debate. Have students record the due date for the website assignment (the *start of class* on Day 9 of this lesson plan) and the date of the final debate (Day 10 of this lesson plan).

- a. Assign students to groups of 3-4 each. Choose half of the groups to represent the Haven Project and half to represent the Outsider City.
- b. For each community (Haven and the City), print a copy of **The Haven Project Political Spectrum**, cut out and fold all the party descriptions. Keep the two sets separate.
- c. Have all the groups representing Haven randomly choose a party from one of these sets. Have the groups from the City choose randomly from the other set.

Conclusion and Consolidation

1. In their project groups, ask students to brainstorm any issues related to food, agriculture, or the environment that they've noticed so far in their community (Haven or the City). Ask each group to share one issue that their party would like to change.

Homework

Listen to [Episode 3](#) and [Episode 4](#) of The Haven Project, and post a one to two minute video for each that summarizes the episode in the matching topic, following the prompts and taking notes in Day 2 of their **Student Booklets**.

Opportunities for Assessment

- **Observation:** Four corners activity – individual decisions and group discussions
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; Student Booklet notes

DAY 3: SUSTAINABLE FOOD

Guiding Question

How do government policies affect our everyday lives? How can we use policy to build a better future?

Materials Needed

- [The Haven Project Student Booklets, Day 3](#)
- [‘Northern Agricultural “Frontiers” \(video\)](#)

Minds On

1. Ask for a volunteer who hasn't shared yet to share their Flipgrid video summary of [Episode 3](#). Ask whether the rest of the class has anything to add?
 - a. Repeat for [Episode 4](#).
2. Thinking back to the first episode, what are some of the reasons that Haven has been able to produce enough food for its citizens (technological advancements, and climate change causing agricultural land to shift north)?

Action

1. Tell the class that mind maps are an alternate form of note taking that can help you organize your thoughts visually. They encourage creativity and can be helpful when brainstorming. Your main subject goes in the centre, with smaller subjects and ideas branching off of that. Ask students to follow along on their smart phone or device while you open app.mindmup.com and start a new mind map. As you start to build, have students copy your moves to create their own matching mind map. Add a root node, and label it *Climate Change*. Demonstrate how to change the colour, font and font size for this node. Add three child nodes to this root node, and label them *Causes* (e.g. increasing greenhouse gases in the atmosphere), *Consequences* (e.g. more extreme weather patterns), and *Adaptations* (e.g. vertical farming). Elicit 2-3 examples from the class to add to this shared mind map. (This can also be done on paper or on the board.)
 - a. Give students 5 minutes to fill their individual mind map out with as many ideas as they can.
 - b. Watch the [Northern Agricultural Frontiers video](#) allowing students to add to their mind map as they watch.
 - c. In their political party groups, have students create one summary map that incorporates all their ideas. This can be in MindMup, on paper, or on the board (if space permits).
 - d. Ask each group to discuss their mind map with the class. Allow all groups to continue to add to their own mind maps during the discussion.
2. Looking at the mind maps they have created, do any of the topics correlate to issues or opportunities experienced by the world in the podcast? Make a list as a class. Students can record this list in their **Student Booklets**.

Conclusion and Consolidation

In their project groups, ask students to think of one environmental issue in the podcast, that is related to food and/or agriculture, and that would matter to their political party, keeping in mind their political ideology. What would be their stance on the issue? For example, are they for or against expanding agriculture into previously undisturbed land, considering both the benefits and consequences? Allow groups to share their issue and stance with the class.

Homework

Listen to [Episode 5](#) and [Episode 6](#) of The Haven Project, and post a one to two minute video for each that summarizes the episode in the matching topic, following the prompts and taking notes in Day 3 of their **Student Booklets**.

Opportunities for Assessment

- **Observation:** Group and individual mind map creation; note taking
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; mind maps; Student Booklet notes

DAY 4: GOOGLE SITES MINI LESSON + WORK PERIOD

Materials Needed

- [The Haven Project Student Booklets, Day 4](#)

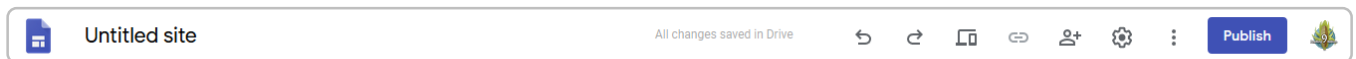
Minds On










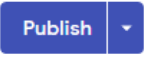
1. Ask for a volunteer who hasn't shared yet to share their Flipgrid video summary of [Episode 5](#). Ask whether the rest of the class has anything to add?
 - a. Repeat for [Episode 6](#).

Action

1. Walk students through the basics of creating a Google Site. Students can follow along on their devices, if possible. Otherwise, they should fill out the **Google Sites Activity** in their **Student Booklets** while you demonstrate. Make sure to cover the components below. There is a summary of this in the back of the **Student Booklets** ('Designing a Google Site').

TOP NAVIGATION BAR



	Navigate back to Google Sites home page (start a new site)
Untitled site	File name (what your site will be named in your Google Drive)
	Undo/redo last action
	Preview (see what your website will look like when published)
	Get the address for your published site (where others can find your site)
	Share (choose who can view or edit your site, by invite or shared link)
	Settings:
	Change the look or location of the navigation bar
	Add a logo to the navigation bar or browser tab
	Help
	Publish your website so that it can be found on the internet (either publicly, or by those with the link) <ul style="list-style-type: none"> - Choose a custom web address - View changes before publishing - Unpublish

HEADER



Site Name	The name of your site (this stays the same on all pages)
Your page title	This can change on each page
Home Page 1 Page 2	Navigation bar
Change image	Change the background of the header (can change per page)
Header type	Change the header size (can change per page)

SIDE MENU



Insert	Add elements to your page	
		Add a text box
		Add an image
		Embed content from another website
		Add sections with premade layouts for images and text
		Point to any section to reveal this side menu, with options to change the background of the section, duplicate the section, delete the section, or rearrange the section on the page
Pages	Add new pages to your website (these will show up in the navigation bar)	
		Add a new page <ul style="list-style-type: none"> - Pages can be duplicated, renamed, rearranged, or set as the home page
Themes	Change the font and background colour of the site	

2. Allow groups to work on their websites for the rest of the lesson, with a focus on designing their home page, which should include their logo, slogan, and chosen leader.

Conclusion and Consolidation

Ask each group to briefly describe one thing they would like to add to their site to help them communicate their political platform. No group can repeat something that has already been mentioned.

Homework

Listen to [Episode 7](#) of The Haven Project, and post a one to two minute video that summarizes the episode in the matching topic, following the prompts and taking notes in Day 4 of their **Student Booklets**.

Opportunities for Assessment

- **Observation:** Group website work
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; Google Sites Activity; creation of party logo and slogan

DAY 5: THE FOOD WE EAT

Guiding Questions

What is the role of government in monitoring people's health and wellbeing? Should they be able to decide what foods people can and cannot eat?

Materials Needed

- [The Haven Project Student Booklets, Day 5](#)
- ['What the World Eats' \(slideshow\)](#)
- ['Man Drinking Fat' \(video\)](#)

Minds On

1. Ask for a volunteer who hasn't shared yet to share their Flipgrid video summary of [Episode 7](#). Ask whether the rest of the class has anything to add?
2. Present students with the list of countries on the second slide of the ['What the World Eats' slideshow](#). The following slides compare a week's worth of food for families from each of these countries. Can students guess which countries are represented by each picture?

Action

1. Tell students that in 2012, Michael Bloomberg, the mayor of New York City tried to ban food establishments from serving soda in sizes larger than 16oz. (2 cups). Play the ['Man Drinking Fat' YouTube video](#).
2. Many felt that it was their right to consume as much soda as they wanted. Ask students whether they think the government should have a role in determining the quantity of unhealthy food a person consumes, and why?
3. Ask students if they think the government should allow Real Meals to sell post-consumption reconstituted fat protein? Create a t-chart with reasons in favour and against allowing RE-CON Protein to be part of the food system.
4. In their debate groups, ask students to determine where their party stands on allowing people to choose to eat RE-CON Protein, and how much food regulation their party plans to impose on the people.

Conclusion and Consolidation

Discuss as a class whether there are any food products or food additives that you would like to see banned in your country.

Homework

Listen to [Episode 8](#) and [Episode 9](#) of The Haven Project, and post a one to two minute video for each that summarizes the episode in the matching topic, following the prompts and taking notes in Day 5 of their **Student Booklets**.

Opportunities for Assessment

- **Observation:** Note taking; group discussions
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; Student Booklet notes

DAY 6: DEBATE MINI LESSON

Materials Needed

- [The Haven Project Student Booklets, Day 6](#)
- [‘Canada’s Election 2019 Leaders’ Debate \(Floor\)’ \(video clip\)](#)

Minds On

1. Ask for a volunteer who hasn’t shared yet to share their Flipgrid video summary of [Episode 8](#). Ask whether the rest of the class has anything to add?
 - a. Repeat for [Episode 9](#).

Action

1. Watch [‘Canada’s Election 2019 Leaders’ Debate \(Floor\)’ video clip](#) (3:57:00 - 4:12:50). While watching the clip, have students take note of the tactics used by the party leaders, and whether they think they were effective or ineffective, in their **Student Booklets**. Discuss as a class.
2. Prepare students for a practice debate:
 - a. Pair up project groups. If you have an odd number of groups, two groups can be combined.
 - b. Assign an *affirmative* group and a *negative* group in each pair.
 - c. Choose an engaging topic for each group to debate, and give students some time (10 minutes) to develop three supporting points for their position (using their **Student Booklets** to organize their ideas). Topics should be familiar enough to students that they can develop a quick argument in a relatively short amount of time. Some ideas could include:
 - i. Teachers should earn as much as doctors
 - ii. Technology is making people smarter
 - iii. Sandwiches are better than soup
 - iv. Everyone should switch to a vegetarian diet
3. In the interest of time, run the debates as detailed below. To increase engagement, let the class know that they will be given dedicated time to develop their rebuttals, and they will be voting for the winning teams under the other topics.

- | |
|--|
| 1. Topic 1: Affirmative opening statement (90 seconds) |
| 2. Topic 1: Negative opening statement (90 seconds) |
| 3. Repeat steps 1-2 for each remaining topic |
| 4. Give the whole class 5 minutes to prepare rebuttal statements in response to opposing arguments |
| 5. Topic 1: Negative rebuttal and closing statement (60 seconds) |
| 6. Topic 1: Affirmative rebuttal and closing statement (60 seconds) |
| 7. By show of hands, ask the rest of the class to vote on the winner of the Topic 1 debate |
| 8. Repeat steps 5-7 for each remaining topic |

Conclusion and Consolidation

1. Lead a class discussion using the following prompts:
 - a. What did students find difficult about the practice debate?
 - b. What strategies affected who won the debates?

Homework

Listen to [Episode 10](#) of The Haven Project, and post a one to two minute video that summarizes the episode in the matching topic, following the prompts and taking notes in Day 6 of their **Student Booklets**.

Opportunities for Assessment

- **Observation:** Note taking; group work; voting on other debates
- **Conversation:** Class discussions; debate participation
- **Product:** Flipgrid summaries; Student Booklet notes

DAY 7: EVOLUTION OF AGRICULTURAL LABOUR

Guiding Question

How has labor evolved in the food sector?

Materials Needed

- [The Haven Project Student Booklets, Day 7](#)
- ['The Future of Farming' \(video\)](#)
- **Career Card Game (p.31-47)**
 - Career title, description, required training, and interesting fact cards (p.31-37)
 - Each career has 4 associated cards (described above), and 14 careers are provided. Choose a number of careers so that each student can be assigned one card, and cut these out before class. Any extra cards can be held by the teacher or posted on the board for students to see.
 - Career Pathway Job Lists (p.38-44)
 - Print these and post them on the board, with the pathway titles visible and the career titles covered
 - Answer Key (p.45-47)
- **Timer**

Minds On

1. In their project groups, ask students to use mind maps to brainstorm answers to the following questions using their **Student Booklets**. After brainstorming, discuss answers as a class.
 - a. What examples of jobs/labour are presented in the podcast? (Examples may include food scientist, chef, distribution.)
 - b. What is the difference between skilled and unskilled labour?
 - c. What are the requirements of skilled labour? *Experience, skills, and education.*
2. Ask students to name examples of unskilled labour. Some examples may include fast food worker, janitor, or farm hand. Ask the class:
 - a. Do these jobs require skill? *Yes, they do.*
 - b. Instead of unskilled, is there another word we can use to describe these jobs? Many terms could be used here. One that we like is “foundational,” as a lot of the jobs that are seen as unskilled are actually foundational jobs that support industries. These jobs do require specific skill sets and experience. You would not be able to just walk in and do that job. Use this opportunity to discuss the negative connotations of unskilled labour.

Action

1. In order to understand skilled labour in the food sector today, it is first important to establish an understanding of what agriculture was like in the past. Using the Padlet app, have half of your students research images of farming from the 1800s, and the other half research images of agriculture from the present.

- a. Have a class discussion about the results, analyzing the dichotomy between these two eras of farming, and specifically thinking about the types of jobs and labour you see. Through your discussion, lead students towards how technology has led jobs related to food and agriculture to become much more skilled.
 - b. Supplement with **'The Future of Farming'** video if needed. Students can think of ways they think farming will advance in the future and how that will impact the way agricultural jobs will transform too.
2. Play the Career Card Game. In this game, students will delve deeper into the variety of modern jobs related to food and agriculture, and how to prepare for a career in food and agriculture. Students will be tasked with matching up cards that describe agricultural careers from 7 different career pathways (environmental science, food science, plant science, agriculture business, animal science, agriculture mechanics, and natural resources). Each career has 4 related cards: career title, career description, level of required education, and an interesting fact.
 - a. Give each student one card. (Any extra cards may be held by the teacher or posted on the board for students to review.)
 - b. Set the timer to 5 minutes and tell students to find their group mates, assisting where necessary using the answer key.
 - c. Once students find their group mates, have them decide where their career fits under the 7 different career pathways. These can be posted on the wall or smart board, with the career titles covered.
 - d. Reveal the Career Pathway job lists for each pathway, allowing students to evaluate their placement and see other careers in each pathway.
3. Ask the students to reflect on what these various jobs tell us about the agri-food sector and skilled work. Does this change their pre-existing notions about agricultural jobs?

Conclusion and Consolidation

1. In their debate groups, give students time to brainstorm some potential issues regarding agriculture and food-related jobs or labour in Haven, recording their ideas in their **Student Booklets**. Allow groups to share their ideas. Ask students to consider how their platforms might affect these issues, and consider whether their proposals will cause any additional issues to arise.

Homework

Listen to [Episode 11](#) and [Episode 12](#) of The Haven Project, and post a one to two minute video for each in the matching topic, following the prompts and taking notes in Day 7 of the **Student Booklets**.

Opportunities for Assessment

- **Observation:** Discussion with group members; Career Card Game
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; Student Booklet notes; Padlet image research

DAY 8: REFERENCING MINI LESSON (APA FORMAT) + WORK PERIOD

Materials Needed

- [The Haven Project Student Booklets](#), Day 8
- Reference List Activity, (p.48-49)
 - One bag of cut out citations per group
 - Tape or sticky tack

Minds On

1. Ask for a volunteer who hasn't shared yet to share their Flipgrid video summary of [Episode 10](#). Ask whether the rest of the class has anything to add?
 - a. Repeat for [Episode 11](#) and [Episode 12](#).
2. Lead a guided discussion about why it is important to reference the sources of information you use in a project. (Helps avoid plagiarism, gives credit to the author/producer, helps others reading your work to find sources to learn more, lends credibility to your claims/strengthens your argument, show you've done your research.)

Action

1. Have students work on their own to find all the errors in the Reference List Practice activity in Day 8 of their **Student Booklets**, using the APA Style Basics summary found in the back of the **Booklets**. Take the answers up as a class.
2. Complete the Reference List Activity.
 - a. Hand each project group a bag of clipped citations (3 total).
 - b. Using the APA Style Basics summary, groups will race to figure out which pieces belong to which type of reference (pieces that belong together are marked with a matching symbol), and what order they go in, sticking them in proper order into their **Booklets** as they go.
 - c. Take up answers as a class, by asking students to name the pieces of the reference in order (e.g. author, date of publication, etc.).
3. Allow groups to work on their websites and debate preparation for the rest of the lesson, with a focus on ensuring all they have a full reference for each source of information they used so they can resolve any questions that might come up.

Conclusion and Consolidation

1. Lead a class discussion about the resolution of the podcast, and what parallels can be drawn to our own world.
2. Draw random numbers to determine the party speaking order for the debate.

Homework

1. Finished websites are to be published and shared with the class before the start of the next lesson.

Opportunities for Assessment

- **Observation:** Reference List Activity; political party group work
- **Conversation:** Class discussions
- **Product:** Flipgrid summaries; Student Booklet notes; Reference List Practice activity

DAY 9: FINAL WORK PERIOD (WEBSITES DUE)

Allow students to continue working on their debate preparation, with a focus on analyzing the platforms of the opposing parties through their websites, and developing counter-arguments against the main proposals of their platforms.

Before the next class, set up two Google Forms (one for Haven and one for the City) that students will use after the debates to vote for which party they want to elect. Include a qualitative question that asks what influenced students to vote the way they did. You can use this feedback to as an additional assessment of how well students communicated their platforms (as well as to judge engagement of the audience).

DAY 10: DEBATE DAY

On debate day, divide the class by the communities they will be representing. Parties from the Outsider City will debate first, and the other students will act as citizens from the City.

- Keep a timer nearby to make sure candidates stick to their time slots.
- Arrange a signal (e.g. raise your hand) to let the speakers know when they have 30 seconds left, and when they have 10 seconds left.
- Have students in the audience (those not participating) create signs that they will use to signal when they agree or disagree with what a leader is saying. This can be as simple as two pieces of paper: one with a check mark, and one with an 'X'. (You could also prepare these before class.)

1. The first party has three minutes to make their opening speech. Imagining they are citizens from the City, students in the audience should raise positive or negative signs when they agree or disagree with the points being made.

2. Repeat step 1 until all parties have given their opening speech

3. Allow five minutes for parties to organize a rebuttal and closing speech. The main points for this rebuttal should already be planned from their review of the opposing party websites, but this time will allow students to strategize on which issues they will make counter arguments against based on the reaction of those in the audience.

4. Working in reverse order (last party to give an opening speech goes first, then second last, etc.), allow each party 90 seconds to make their rebuttals and closing statement.

5. Have the audience vote on which party they want to elect and why through the Google Form you set up previously for the City.

- Repeat, this time with the Haven parties participating in a debate, and the others acting as citizens from Haven.

Opportunities for Assessment

- **Observation:** Participation in planning their party's debate strategy; using signs to show interest in topics during other debate
- **Conversation:** Debate and rebuttal
- **Product:** Voting on Google Form, including reasoning

Additional Resources

Feeding 9 Billion

[F9B: The Illustrated Series](#) – A series of bite-sized illustrated YouTube videos that break down evidence-based strategies to avoid a Global Food Crisis.

[F9B: The Card Game](#) – Save your country from food insecurity by producing food, earning money, and strategically weathering global crises, in this International Serious Play Awards Gold Medal winning card game. Available to purchase, or in a free online print-and-play version.

[#foodcrisis Graphic Novel](#) – Explore the human side of food insecurity in this graphic novel about hunger, inequality, and the politics of food. #foodcrisis is based on historical events, and includes 13 detailed background essays on topics from the story. Preview the first three chapters free!

AgScape

[AgScape Teacher Ambassador Program](#) – Through AgScape’s Teacher Ambassador Program, Ontario Certified Teachers visit classrooms to provide lessons about agriculture and food. AgScape’s Teacher Ambassador lessons align with the Ontario curriculum for Grades 7 to 12 and are offered free of charge. **Starting September 2020, AgScape will be offering these lessons in virtual delivery.**

[Business of Food eLearning Platform](#) – The Business of Food (BOF) eLearning Platform allows Ontario educators and teacher candidates to build knowledge and understanding of agriculture and food at their own pace, from any location. To learn more on how to receive a scholarship to take a Business of Food course for free, please visit <https://agscape.ca//bof-educators>.

[ThinkAG Career Competitions](#) – AgScape’s ThinkAg Career Competitions are an excellent opportunity to help students, grades 5-12, make-real world connections and learn about future career pathways in the agri-food sector. This is a free event that is run with multiple classes in your school. **Starting September 2020, AgScape will be offering this event in virtual delivery.**

[Growing Careers](#) – From Communications, Engineering and Economics, to Food and Animal Sciences - the possibilities are endless when it comes to career opportunities in the ag-sector. Watch over 75 Career Profile videos, as well as recorded live tours of farming and food facilities on [AgScape’s YouTube Channel](#).

[Digital Resource Library](#) – AgScape offers a free, one-stop e-library of agriculture and food focused curriculum-linked resources for teachers. With more than 100 FREE and downloadable digital materials for Grades 1 – 12, these resources allow teachers to easily integrate agriculture and food education into their classroom teachings. Register today to access these FREE resources.

THE HAVEN PROJECT CULMINATING ACTIVITY

Political Platform Website and Debate

With tensions growing between the Haven Project and the Outsider City, citizens of both have been pushing for political reform. You are the ones in charge of leading these communities into the future. You and your group will represent a political party within either Haven or the City and design a political platform that addresses the issues facing the community, focusing on issues relating to food security. Your political party will research historical examples of similar issues, present your platform as a website, and go head to head against other parties in a debate-style forum.

PART 1: CREATE YOUR PARTY

Once you have been assigned a political ideology to represent, you must choose a name for your party, and design a slogan and logo. Elect a party leader to speak in the debate. (The rest of the team will assist the leader with identifying speaking points and developing a rebuttal on debate day.)

PART 2: IDENTIFY THE ISSUES AND DECIDE YOUR STANCE

- a. As you listen to The Haven Project, consider all the issues that are present within the story that relate back to agriculture and food security. These may be social, environmental, or economic issues. Decide on a minimum of three issues to build your platform on.
- b. Decide your party's stance on these issues (how do you feel they should be handled) and what type of actions or policies you will support to improve these issues. Research how this issue (or a similar issue) has been handled in the real world, and what the outcome was. Were the actions taken effective? Provide at least one example from the real world as evidence for why you chose your stance. The stances you take can be different from those in your examples.
- c. You may choose from the list of issues below, or decide on your own:
 - i. Environmental/agricultural sustainability (e.g. invest in new technology, reduce food waste, carbon neutrality)
 - ii. Physical security of food stores and markets
 - iii. Social equality (e.g. diversity and inclusion, education for Outsiders)
 - iv. Trade
 - v. Food/ingredient bans or food sovereignty
 - vi. Food aid
 - vii. Local food systems (e.g. community gardens, food banks)

PART 3: CREATE A WEBSITE (DUE DATE: _____)

Design a Google Site that explains your party's political platform, including the details below. You will reveal your website and platform to the other parties the day before the debate.

- a. A home page with your party's name, leader, slogan, and logo
- b. One additional page per issue in your platform, including:
 - i. A description of the issue and how it affects the community you represent (one paragraph or one minute video)
 - ii. Your party's stance on the issue, including how it fits into your political ideology and how it will affect the citizens of your community
 - iii. A summary of at least one real world example of a similar issue (one paragraph or one minute video)
 - i. Where did the example take place?
 - ii. Which organization(s) took action? Were they local, national, or international?
 - iii. What action(s) were taken, and what was the outcome?
- c. One page with an APA-style Reference List including all the sources you used to find information about your real world examples
- d. Images, videos, or other creative tools to support your platform

PART 4: DEBATE AND ELECTION (DUE DATE: _____)

Once you have designed and shared your platform and website, both communities will hold a leaders debate and election.

Starting with the political parties from the Outsider City:

- a. Party order will be randomly selected before the day of the debate.
- b. The leaders from the Outsider parties will each have three minutes to briefly introduce themselves, outline the main issues in their political platform, their stance on these issues, and their reasoning.
- c. All parties will then be given five minutes to organize a rebuttal and closing statement based on their previous knowledge of the opposing parties' platforms (from their websites) and the initial debate speeches. Each rebuttal should include a counter argument to at least two of the actions or policies proposed by any of the opposing parties.
- d. Each party will then be given 90 seconds to deliver their rebuttals and closing statements.
- e. Groups not participating in the current debate (political parties from Haven) will act as citizens of the City. After the final rebuttal, citizens will vote on which party to elect, and the party with the highest number of votes will be elected the new leaders of the City.

Repeat the steps above, but this time political parties from Haven participate in the debate, and the other groups act as citizens of the City.

The Haven Project – Holistic Rubric (Website)

Level	Criteria
4	<ul style="list-style-type: none"> • Students illustrated a strong understanding of key concepts of food and agricultural issues as well as their political ideology. • Overall organization of website allows for viewers to understand ideas in a clear and easy way. • Through their website, students were able to effectively make connections between ideology and the issues presented in the Haven Project as well as real world issues.
3	<ul style="list-style-type: none"> • Students understand most key concepts related to food and agricultural issues as well as their political ideology, with minor errors. • Website is organized mostly well, with a few unclear areas. • Through their website, students were able to make connections between ideology and the issues presented in the Haven Project as well as real world issues, however, rarely extended these connections to more critical discussion.
2	<ul style="list-style-type: none"> • Students illustrated a basic understanding of the key concepts related to agricultural issues, however, there are discrepancies in understanding of political ideology. • Lack of effective organization of website makes it difficult to understand party platform. • Students made few connections between ideology and issues presented in Haven Project. Attempt is made to connect real world issues, however, lacks explanation.
1	<ul style="list-style-type: none"> • Students showed a basic understanding of key concepts related to agricultural issues. Student is at the beginning stages of understanding their political ideology. • Website organization posed as a barrier to clarity and understanding for viewers. • Few connections were made between political ideology and Haven Project podcast, however, lacks critical analysis.

The Haven Project – Holistic Rubric (Debate)

Level	Criteria
4	<ul style="list-style-type: none"> • Students illustrated a strong understanding of the key concepts learned in this unit regarding agricultural issues as well as political ideology. • Strong speaking and listening skills were displayed during the debate. • Students were able to respond effectively and critically to other parties. • Through the debate, students illustrated a strong ability to make connections between their platform and the issues from the Haven Project podcast.
3	<ul style="list-style-type: none"> • Students showed understanding of the key concepts learned in this unit regarding agricultural issues, however, showed signs of uncertainty regarding political ideology. • Speaking and listening skills are evident, however, students missed addressing key points from opposing groups. • Students responded to other parties with signs of critical thinking. • Through the debate, students illustrated the ability to make connections between their platform and the issues from the Haven Project podcast, with a few discrepancies.
2	<ul style="list-style-type: none"> • Students illustrates a basic understanding of the key concepts learned in this unit regarding agricultural issues and political ideology. • Students attempted to respond to other parties, however, more focus was needed on making critical statements and asking meaningful questions. • In terms of communication, students are still developing speaking and listen skills. • Through the debate, students illustrated the ability to make connections between their platform and the issues from the Haven Project podcast, with a few discrepancies.
1	<ul style="list-style-type: none"> • Students are still in the developing stage of their understanding of the key concepts learned in this unit regarding agricultural issues. Understanding of political ideology is also in developing stage. • Students made attempts to respond to other parties, however, students are still developing effective speaking and listening skills. • Through the debate, students made a few connections between their platform and the issues from the Haven Project podcast, but were not detailed or critical in nature.

Totalitarianism

'THE LEADER RULES'

- leader comes to power through a cult of personality (populism)
- leader has unlimited control of people and the state
- government rules through strength/power/violence/fear/popularity
- total control of economy, resources, media, courts, and education (no opposition allowed)
- strict obedience to the government
- promotion of the state above the individual

Liberalism

'THE PEOPLE RULE WITH THE GOVERNMENT'

- leaders are chosen democratically by the people
- government rules with the consent of the people
- some government control of economy, resources, media, courts, and education
- general trust in government
- progressive ideas, science, and reason are supported

Conservatism

'THE PEOPLE RULE'

- leaders are chosen democratically by the people
- strict limits on what government can do
- government rules with the consent of the people
- limited government control of economy, resources, media, courts, and education
- limited trust in government (especially "big government")
- traditional ideas, individualism, and religion are supported

Socialism

'THE COMMUNITY RULES'

- leaders are chosen democratically by the people
- fewer limits on what government can do
- government rules hand in hand with the people
- high level of government control of economy and resources
- freedom of media, courts, and education
- high level of trust in government
- progressive ideas, collectivism, social theories, and reason are supported

Communism

'THE PEOPLE RULE THE PEOPLE'

- there are no leaders ideally, but practically they are chosen by the party
- no limits on what government can do
- government rules for the people
- complete government control of economy, resources, media, courts, and education
- high level of trust in government (government looks after you)
- no social classes, collectivism, common ownership, and a social safety net are supported

Wildlife Biologist

Studies and oversees the protection and management of an assigned population of one or several species of wildlife animals

Requires a bachelor's degree in wildlife biology, ecology, environmental sciences, wildlife management, or wildlife sciences

The opportunity to travel within rural Canada and take pictures of wildlife to survey the health of the populations

Animal Welfare Auditor

Performs animal handling, welfare and food safety audits on farms, animal production and processing facilities

Requires a bachelor's degree in animal science, animal welfare or related field is required

Ensures the treatment of animals is proper with high quality care and will get to work with many animals

Aerial Applicator/ Agricultural Pilot

Flies planes at low altitudes to apply pesticides, fertilizers or fungicides on fields

Requires a commercial pilot license and agricultural pilot training

Helps firefighters in the containment and extinguishing of forest fires

Crop Advisor

Recommends things from seed and fertilizer to pest management and disease treatment to farmers

Requires a bachelor's degree in agronomy, soils, plant or crop science and a pest control advisor license

Helps farmers create better ways of raising livestock to improve animal welfare

Dietitian

Supports individuals to make healthy choices to meet their nutrient needs

Requires a bachelor's degree in dietetics, food or nutrition and a 1-year internship

Works in settings like hospitals, community centres, social media or manufactures

Food Stylist

Designs, prepares and styles food for photography or for TV demonstrations

Requires a College degree in culinary arts, nutrition or a related field

Creates own work hours, works with technology, can do work from anywhere

Shipping Coordinator

Manages the logistics of exports and determines the most efficient methods of shipping

Does not require a formal degree, however, university degree in agriculture preferred

The opportunity to work for large-scale agriculture companies and manage the export of their goods and products around the world

Irrigation Specialist

Creates and installs specialized water systems for farms, golf courses and landscape

Requires a college degree in turf grass management, agricultural engineering or landscape architecture

Reduces the environmental impact of watering and can reduce labour and costs for farmers

Sale Representative

Manages various business accounts, advertises new products, and conducts sales of agriculture products

Requires a bachelor's degree in agriculture or in the field you hope to represent (animal, plants, etc.)

The opportunity to travel to various organizations and market new agriculture products or procedures

Biorefining Specialist

Converts biomass into sustainable and more environmentally friendly fuel, power and chemicals

Requires a bachelor's degree in chemical or electrical engineering

Some people in this profession make sustainable biofuel that Indy and NASCAR run on

Toxicologist

Studies chemicals and their effects on living beings and the environment, to help maintain a good standard of health

Requires a Master's or Doctorate degree, in biology or chemistry

The opportunity to use science to "debunk" common misconceptions regarding the use to chemicals in agriculture

Agricultural Drone Pilot

High-tech drones allow farmers and drone pilots to increase efficiency in certain aspects of the farming process

Requires a High School Diploma or less and a Drone License

With their bird's eye view and advanced sensors, it can gather data on 500 to 1,000 acres in less than a day

Apiary Worker/ Beekeeper

Manages honeybee colonies for honey production and pollination services

Requires a high school diploma

You can work at home in your backyard

Ag-Tech Entrepreneur

Tries new techniques and comes up with ideas that will maximize profit, minimize effort and grow businesses

Requires a bachelor's degree in agricultural engineering, agronomy, or agricultural business

Be your own boss – set your own schedule and priorities

Environmental Sciences Career Pathway

Ecologist

Studies and researches the relationship of organisms and their environment

Biosecurity Monitor

Helps control pests and the spread of diseases to animals, plants, and the environment

Climate Change Analyst

Researches data about our planet's climate, such as looking at greenhouse gases and polar ice caps

Game Warden

Works at the province or federal level, enforcing laws related to hunting and fishing

Occupational Health and Safety Manager

Responsible for the policy, procedures, and measurement of occupational health and safety

Nematologist

Studies nematodes (microscopic roundworms) and their interactions with plants

Toxicologist

Wildlife Biologist

Agricultural Mechanics Career Pathway

Maintenance/ Service Technician

Makes repairs on agricultural machinery and lawn and garden equipment

Heavy Equipment Operator

Responsible for the loading and unloading of goods

Design Engineer

Designs and develops agricultural equipment and system products, and participates in design reviews

Electrical Engineer

Uses technology to install, repair, service, and create electrical operations

Software Engineer

Develops and builds computer systems software and applications software

Construction Foreman

Constructs agricultural buildings and structures such as barns, sheds, grain bins, mills, plants and mills

Ag-Tech Entrepreneur

Tries new techniques and comes up with ideas that will maximize profit, minimize effort and grow businesses

Agricultural Drone Pilot

High-tech drones allow farmers and drone pilots to increase efficiency in certain aspects of the farming process

Food Sciences Career Pathway

Evisceration Processors	Removes internal organs of the carcass during processing
Food Safety Specialist	Ensures that the food being produced, processed and packaged are meeting food safety standards
Packaging Engineer	Designs packages for food and animal health care products, chemicals and seeds
Product Developer	Studies and improves the process of canning, freezing, storing, and packaging of food
Produce Buyer	Purchases produce to be made into other products or for resale in a retail environment
Refrigeration Specialist	Maintains, installs and repairs refrigerators and freezers
Food Stylist	Designs, prepares and styles food for photography or for TV demonstrations
Dietitian	Supports individuals to make healthy choices to meet their nutrient needs

Plant Sciences Career Pathway

Entomologist	Researches the growth, nutrition and behaviour of insects and how insects interact with plants
Weed Scientist	Identifies weeds and learns how to combat them or determine how herbicides interact with plants
Arborist	Plants, grows, maintains and removes trees
Agronomist	Reviews research on soil, plants and seeds to recommend effective and efficient farming solutions
Horticulturist	Increases yield and improves vigor, size and taste of plants
Crop Scout	Inspects farm fields and records weed, insect, disease and other observations
Crop Advisor	Recommends things from seed and fertilizer to pest management and disease treatment to farmers
Aerial Applicator/ Agricultural Pilot	Flies planes at low altitudes to apply pesticides, fertilizers or fungicides on fields

Agricultural Business Career Pathway

Certified Appraiser

Determines the monetary value of agriculture property, supplies, and machinery for agencies

Crop Adjuster

Assesses land and buildings for losses where insurance claims have been made

Economist

Uses economic knowledge to manage risk and assists companies in preparing for future economic trends

Brand Manager

Works within brand creation, promotion, and sales

Feed Mill Manager

Oversees the operation, quality, finances, and safety of feed mills

Graphic Designer

Creates promotional and brand content using computer software for business marketing needs

Sales Representative

Manages various business accounts, advertises new products, and conducts sales of agriculture products

Shipping Coordinator

Manages the logistics of exports and determines the most efficient methods of shipping

Natural Resources Career Pathway

<u>Aquaculturist</u>	Manages the breeding, nutrition and environmental conditions of aquatic farms to grow healthy marine species
Conservationist	Researches how to improve, protect and manage the earth's natural resources
Geologist	Studies the Earth's layers to ensure conservation of minerals, water and other matter
Hydrologist	Assesses water quality and movement above and below ground and designs dams, ponds, and sewage systems
Wind substation technician	Installs, inspects and maintains wind turbines
Forester	Plants and manages forests by identifying and preventing disease and helps to prevent wildfires
Irrigation Specialist	Creates and installs specialized water systems for farms, golf courses and landscape
Biorefining Specialist	Converts biomass into sustainable and more environmentally friendly fuel, power and chemicals

Animal Sciences Career Pathway

Animal Geneticist

Analyzes the genetic makeup of animals

Food Animal Veterinarian

Provides medical care for animals that are raised for food production and human consumption

Herd Nutritionist

Advises on raw material product selection, feeding maintenance and diet modifications

Livestock Auctioneer

Sells animals at public auctions

Zoologist

Studies the behaviour, diseases and genetics of animals and wildlife

Pet Groomer

Professionally grooms various pets

Animal Welfare Auditor

Performs animal handling, welfare and food safety audits on farms, animal production and processing facilities

Apiary Worker/ Beekeeper

Manages honeybee colonies for honey production and pollination services

Answer Key

Career	Corresponding Cards	Corresponding Career Area
Dietitian	<p><i>Description:</i> Supports individuals to make healthy food choices to meet their nutritional needs</p> <p><i>Education:</i> Requires a bachelor's degree in dietetics, food or nutrition and a 1-year internship</p> <p><i>Interesting Fact:</i> Works in settings like hospitals, community centres, social media, or manufactures</p>	Food Science
Wildlife Biologist	<p><i>Description:</i> Studies and oversees the protection and management of an assigned population of species of animals</p> <p><i>Education:</i> Requires a bachelor's degree in wildlife biology, ecology, environmental sciences, wildlife management, or wildlife sciences</p> <p><i>Interesting Fact:</i> The opportunity to travel within rural Canada and take pictures of wildlife to survey the health of the wildlife populations</p>	Environmental Sciences
Sales Representative	<p><i>Description:</i> Manages various business accounts, advertises new products, and conducts sales of agriculture products</p> <p><i>Education:</i> Requires a bachelor's degree in agriculture or in the field you hope to represent (animal, plants, etc.)</p> <p><i>Interesting Fact:</i> The opportunity to travel to various organizations and market new agriculture products or procedures</p>	Agriculture Business

Career	Corresponding Cards	Corresponding Career Area
<p>Aerial Applicator/ Agricultural Pilot</p>	<p><i>Description:</i> Flies planes at low altitudes to apply pesticides, fertilizers or fungicides on fields</p> <p><i>Education:</i> Requires a commercial pilot license and agricultural pilot training</p> <p><i>Interesting Fact:</i> Helps firefighters in the containment and extinguishing of forest fires</p>	<p>Plant Science</p>
<p>Biorefining Specialists</p>	<p><i>Description:</i> Converts biomass into sustainable and more environmentally friendly fuel, power and chemicals</p> <p><i>Education:</i> Requires a bachelor's degree in chemical or electrical engineering</p> <p><i>Interesting Fact:</i> Some people in this profession make sustainable biofuel that Indy and NASCAR run on</p>	<p>Natural Resources</p>
<p>Animal Welfare Auditor</p>	<p><i>Description:</i> Performs animal handling, welfare and food safety audits on farms, animal production animal processing facilities</p> <p><i>Education:</i> Requires a bachelor's degree in animal science, animal welfare or related field is required</p> <p><i>Interesting Fact:</i> Ensure the treatment of animals is proper with high quality care and will get to work with many animals</p>	<p>Animal Science</p>

Career	Corresponding Cards	Corresponding Career Area
<p>Agricultural Drone Pilot</p>	<p><i>Description:</i> High-tech drones allow farmers and drone pilots to increase efficiency in certain aspects of the farming process</p> <p><i>Education:</i> Requires a High School Diploma or less and a Drone License</p> <p><i>Interesting Fact:</i> With their bird's eye view and advanced sensors, it can gather data on 500 to 1,000 acres in less than a day</p>	<p>Agricultural Mechanics</p>

Reference List Activity

For each project group: print out one copy, cut out strips on the dotted lines, and keep strips together in a bag or other container. Hand each group one full set of strips when it's time for the activity.

Journal Article:

Ramstetter, C.L., Murray, R., & Garner, A.S.	●
(2010).	●
The crucial role of recess in schools.	●
<i>Journal of School Health,</i>	●
(80)11, 517-526.	●
https://doi.org/10.1111/j.1746-1561.2010.00537.x	●

Website:

Government of Canada. (If the name of the author organization is the same as the site name, do not include the site name in your reference)	▲
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(2020, June 29). ▲

Agroclimate impact reporter. ▲

<https://www.agr.gc.ca/eng/agriculture-and-climate/drought-watch/agroclimate-impact-reporter/?id=1463575416544> ▲

Report:

Tarasuk, V., & Mitchell, A. ■

(2020). ■

Household food insecurity in Canada, 2017-18. ■

PROOF. ■

<https://proof.utoronto.ca/resources/proof-annual-reports/household-food-insecurity-in-canada-2017-2018/> ■