

In With Innovation

Spotlights on new ideas for sustainable agriculture in Ontario!

Introduction

To ensure a more sustainable and food-secure future, Ontario innovators are developing new scientific and technological solutions. Your task is to research one of these Ontario innovations and translate it into a clear, engaging visual story.

Innovators in Ontario are making agriculture more sustainable. With passion and creativity, they find new ways to do things. Each innovator has their own story. We need this diversity of voices and ideas to tackle important problems such as soil loss, farm greenhouse gas emissions, and access to food.

Meet some of Ontario's agricultural innovators and discover how they are leading us into a more sustainable future.

Examples: [English](#) | [French](#)

Curriculum Connections:

Science (Grades 7–12)

- Grades 7 & 8 (Science & Tech): Strand A (STEM Skills) – Using the engineering design process to communicate solutions; Strand B/D – Investigating sustainable ecosystems and mechanical systems in agriculture.
- Grade 9 (SNC1W): Strands A & B – Connecting STEM to real-world issues; exploring sustainable agriculture and human impacts on ecosystems.
- Grade 10 (SNC2D/P): Strand D – Assessing initiatives to address climate change (e.g., carbon-reducing ag-tech).
- Grades 11/12 (Biology/Env. Science): Strand B – Analyzing scientific solutions and the impact of technological innovations on environmental sustainability.

Business & Entrepreneurship (Grades 9–12)

- Grade 9 (BEM1O): Strand B (Entrepreneurial Mindset) – Analyzing how innovators address social and environmental issues; Strand C (Business Comm.) – Creating digital/visual narratives.

- Grade 10 (BEP2O): Strand A – Using “storyboarding” as a prototype tool to test business ideas and communicate value to an audience.

Source: Ontario Ministry of Education. *The Ontario Curriculum, Grades 1-8 & 9 to 12.*

Learning Goals:

- **STEAM in Agriculture:** Understand that the agriculture and food industry involves a high degree of Science, Technology, Engineering, Arts, and Math; Including many career paths.
- **Connect to the Ontario Food System:** Understand that agriculture is a complex system involving production, processing, and distribution. Learn about current issues and solutions within the system.
- **Conduct Research:** Learn to use credible agricultural news sources to find information on local innovations.
- **Communicate Complex Ideas:** Learn to summarize and interpret technical information so others can understand it easily.

Key Terms:

Sustainable Agriculture: The practice of farming in a way that meets society’s present food needs without compromising the ability of future generations to meet their own.

Food Security: A state where all people, at all times, have physical and economic access to sufficient and nutritious food to meet their dietary needs for an active and healthy life.

Agritech (Agricultural Technology): The use of technology and scientific innovation to improve the efficiency and output of agricultural processes.

Project Rubric:

Categories	Level 1 (50–59%)	Level 2 (60–69%)	Level 3 (70–79%)	Level 4 (80–100%)
Knowledge & Understanding	Demonstrates limited knowledge of the innovation; Ontario context is unclear or missing.	Demonstrates some knowledge of the innovation and its basic role in Ontario.	Demonstrates considerable knowledge of the innovation and its specific Ontario location.	Demonstrates thorough knowledge of the innovation and its importance to Ontario.
Thinking	Uses research and the ABT model with limited effectiveness to organize the story.	Uses research and the ABT model with moderate effectiveness to organize the story.	Uses research and the ABT model with considerable effectiveness to create a logical flow.	Uses research and the ABT model with a high degree of effectiveness to create a compelling story.
Communication	Communicates ideas visually and in writing with limited clarity; text is wordy.	Communicates ideas visually and in writing with some clarity; visuals provide basic support.	Communicates ideas visually and in writing with considerable clarity; text is concise.	Communicates ideas visually and in writing with a high degree of clarity and impact.
Application	Makes limited connections between the innovation and a sustainable/secure food future.	Makes some connections between the innovation and a sustainable/secure food future.	Makes clear connections between the innovation and its benefit to Canada’s food future.	Makes insightful connections between the innovation and its broad impact on the food system.

Step 1: Research

Look through agricultural news websites and other sources to find your topic. Remember, the innovator or innovation must be from **Ontario**.

- Find information about the innovator (and or their team, where they work, etc).
- Answer the questions:
 - Who, What, When, Where, Why, and How

To help find a recent and credible innovation feel free to use the search terms and sources below. You are looking for a "problem-solution" story. Look up any terms that you are not sure about to learn more about agriculture and food topics.

Recommended Search Terms:

- *Ontario sustainable agriculture*
- *Ontario agritech startups*
- *Inventions for food security in Ontario*

Credible Ontario Sources:

- [Ontario Agri-Food Innovation Alliance](#): Highlighting research between the University of Guelph and the Ontario government.
- [Farmtario](#): A reputable news source for Ontario's agricultural industry and new technologies.
- [Bioenterprise Canada](#): An Ontario-based "accelerator" that supports new agrifood businesses.

Step 2: Big Idea (ABT Model)

Come up with your storyline or "big idea". To make something into a story, use the ABT Model: "and, but, therefore (so)..." structure. This helps provide narrative.

It's the ONE THING people should get or remember from your comic.

- Ex: It's cold and dark in the arctic **and** it's difficult to grow food **but** there may be a way to do it indoors, **therefore (so)**, we experimented by building an indoor farm.

Step 3: Rough Draft

Focus on the story and write out the information you want to add into your comic strip. Focus on the logical flow of information rather than final artwork.

Make sure to include:

1. The name of the innovator and/or team
2. The background information needed to understand the problem that the innovation solves
3. The purpose of the innovation (what problem it is solving?)
4. The impact of the innovation (solution)

Tips

- Keep text concise. Aim for under 25 words per speech bubble or caption.
- Choose a Main Character for your story

Step 4: Start to Sketch

Do a lot of quick sketches to try and represent your ideas and your text, don't try to put them in the template yet, this is all about brainstorming!

- Try to sketch different ways to represent the same information

Create a few different drafts, test them out with your friends, go back and adjust things, go back and test again. Keep going until you're happy with your concept. Adjust your text as needed as well!

Step 5: Refine and Finalize

Refine and select your ideas, redraw them in the **template** (on Page 6), along with the text you'll want to use. Aim for about 12 "frames" (each row of the template divided by 3, according to your needs

- Edit your text, make sure it fits in the frames with your drawings.
- Redraw, add colour, finalize your text.
- Give your comic a **title**

Take a look at the **examples** on pages 7 and 8.

Step 6: Submit

Share your finished comic strip(s) with us by submitting a digital file(s) in .JPG or PDF format.

[Submit Now](#)

Comic Strip Template

Name: _____

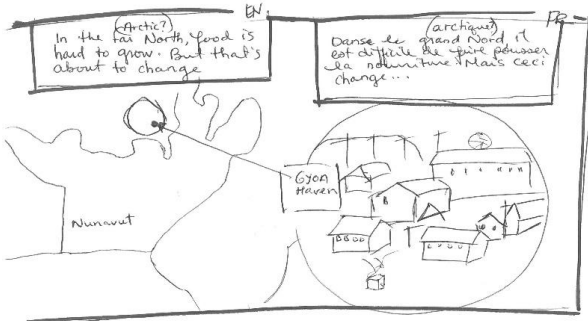
Title: _____

Source:

ABT Model:

Ex. Rough Copy (First 6 Frames)

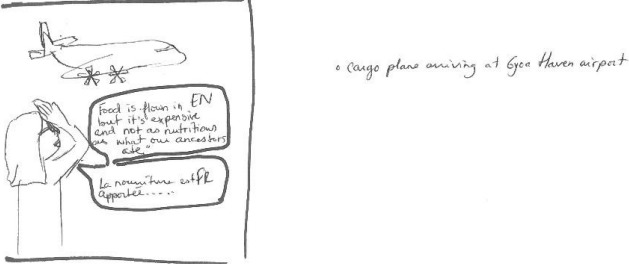
Frame 1
Geo context



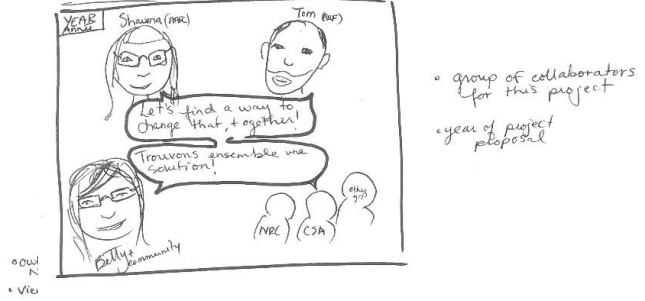
Frame 2
Problem



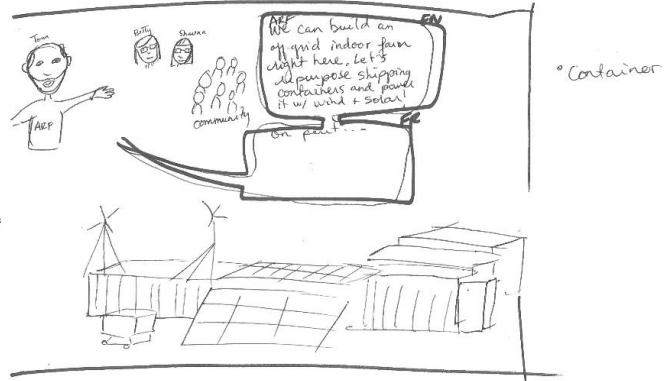
Frame 3
problem, continued



Frame 4
teamwork!



Frame 5
ARF role



Frame 6
ARFC + Betty role



Ex. Final Copy

Community-led indoor farming in the Arctic

Agriculture intérieure dirigée par la collectivité dans l'Arctique

A collaborative project

Un projet collaboratif

