



How can you use **evidence-based information** to support smart **food systems**?

the smart AGRICULTURE challenge

The **smart AGRICULTURE** project challenge asks you to create a project that focuses on the “smart” technologies and science behind food production and fact-check the realities of modern farming.

Your project can be developed around a variety of ideas. Consider the following examples or create your own project focus.

- ◆ Your project can fact check information about current-day farming, farmers and food. Argue the science that dispels myths or misconceptions. Back up your arguments with examples and research.

For example, you could identify misleading messages connected to biodiversity, agricultural technologies, biotechnologies, waste and climate. Consider evidence that you find related to topics such as the application of genetic technologies to food production, organic food production, climate smart farming practices, innovation and the use of computer technologies on farms.

- ◆ Your project could promote strategies that make food production “smarter,” reduce waste or address climate issues. You can highlight actions that individuals, farmers or organizations are taking to build a stronger food system.

For example, you could focus on practices that farmers use to reduce greenhouse gas emissions, promote or protect biodiversity or increase efficiency with technologies.

This **project TOOLS** guide includes graphic organizers, thinking maps, a smart AGRICULTURE **Project Planner** and **Project Pages**.



- ◆ Your project could feature a local farmer and profile how she or he makes agriculture “smart.”

You may find a farmer through the profiles on farmer group websites or access a farmer’s perspectives through one of the Ask a Farmer features. You may also find a farmer or farm family who works close to your local community. Develop questions that focus on topics such as innovation, climate-smart practices or waste reduction. Share information about how this farmer or farming family applies smart agriculture practices.

- ◆ You could alternatively focus on mapping places, facilities, people, services that are connected to agriculture in order to present conclusions about smart agriculture in the community.

What does the future of agriculture look like in a community, the province, nationally or globally? Why is it important to be “smart” about the technologies and practices that farmers use?

- ◆ Your project could focus on uncovering and demonstrating the science behind media messages related to the use of technology, climate smart practices or genetics in food production. You may pinpoint specific media messages related to GMOs or the use of synthetic hormones and antibiotics.

The tools and templates in this guide as well as on the **project AGRICULTURE** website at www.projectagriculture.ca can help you develop your project. Use the **smart AGRICULTURE** information sources, photos, videos, infographics and stories on the **project AGRICULTURE** website to start your research.



Check out the Alberta farm interviews on the **VIEW** webpage of the **project AGRICULTURE** website at www.projectagriculture.ca/view/ for additional perspectives from Alberta farmers on issues and topics connected to smart agriculture.



project AGRICULTURE Project Planner

being involved with the food system

Supporting smart agriculture involves active participation in the food system. **Active participation** is about:

- ◆ Working collaboratively with others to discuss and take action, from informed food buying to understanding what local farmers and producers do to building strong, healthy and food secure communities
- ◆ Finding out more and becoming knowledgeable about food and food systems
- ◆ Thinking critically about the information and messages in media
- ◆ Sharing ideas about the food system



How are you involved with the food system? What more do you think you could do?

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mythbusters
 informed food consumer
smart agriculture
 share your ideas
 active participation
 misconceptions
 technology

Food systems include the way food is produced, processed, distributed, consumed, and disposed of, and they have direct impacts on the lives of Canadians. Food systems are interconnected and are integral to the well-being of communities.

meeting the challenge

You are challenged to become an informed food consumer by creating and sharing a **smart AGRICULTURE** project. Your project should focus on the “smart” technologies and science behind food production. It should fact-check and present evidence-based information about the realities of modern farming, farmers and food.

Your project can mythbust media messages, inform others about food or farming misconceptions, promote or demonstrate evidence-based information about the science behind issues such as genetics, climate change, biodiversity, food waste or technologies in agriculture or highlight practices that individuals, farmers or organizations use to make agriculture “smart.” Your project can be centred in a local community or address global issues.

As a starting point, consider the following misconceptions identified in a study conducted for Agriculture and Agri-Food Canada in 2013. What has changed? What misconceptions have persisted?

Misconception 1 – Agriculture is not innovative and modern.

Misconception 2 – The agriculture sector is shrinking.

Misconception 3 – Farming is unsustainable and potentially environmentally harmful.

Misconception 4 – Farming is moving away from family businesses toward corporate operations.

Agriculture and AgriFood Canada (2013). Modern Agriculture and Agricultural Awareness Focus Groups: Final Report. The Strategic Counsel. http://epe.lac-bac.gc.ca/100/200/301/pwqsc-tps-gc/por-ef/agriculture_agri-food/2014/040-13/report.pdf

The reality is that agriculture is innovative and growing and farmers are concerned about and take care of the environment. Most farmers plan to pass the farm on to a family member. The science involved in smart agriculture practices can dispel myths and stereotypes about agriculture and show how agriculture produces food responsibly, in a manner that respects the environment and animal welfare. These sciences have addressed topics that include biodiversity, biotechnologies, climate change, emerging technologies and waste management.



The Best Food Facts website presents a series of *True or Not* articles that provide expert views on the science behind the food system at www.bestfoodfacts.org/category/true-or-not/.

Agriculture More than Ever presents a series of articles based on myths in Canada’s food system at www.agriculturemorethanever.ca/tag/myths/.

Watch this Agriculture and Agri-Food Canada *Mythbusters* video at www.youtube.com/watch?v=QbG7nwJ0dfs.

plan your project

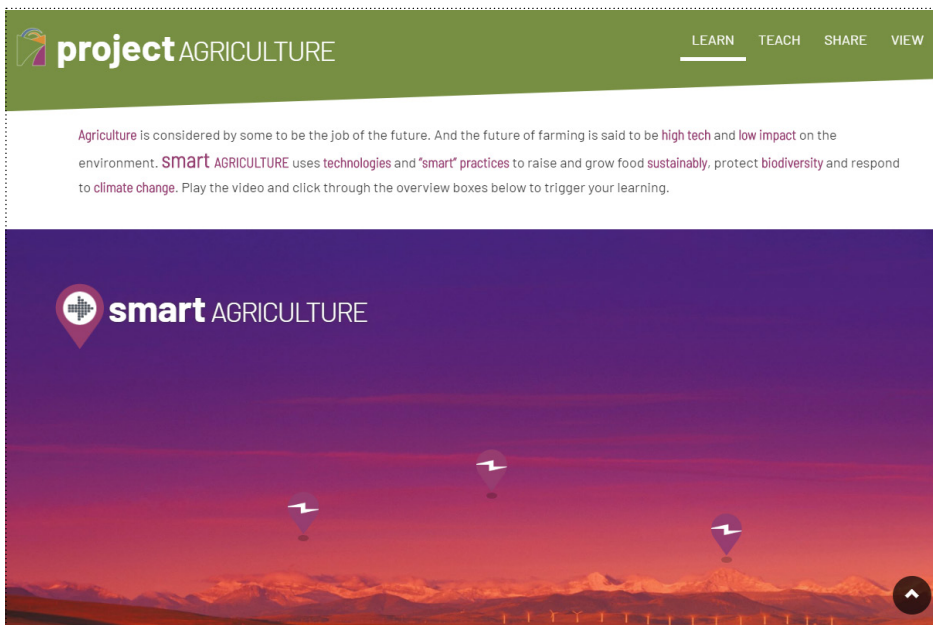
Start to brainstorm ideas for a project that fact checks messages and realities of modern farming, farmers and food.

Use the **project AGRICULTURE** resources to help you identify a project question.

Click on the animated map pins on the **smart AGRICULTURE** banner on the **project AGRICULTURE** website at **www.projectagriculture.ca** to find and download learning sources that spark thinking and questions.



Examples of project questions are provided throughout the **Spark Questions about smart AGRICULTURE** sources. These questions are found in **INVESTIGATE MORE** sidebars.



Map a project concept. Identify what interests you and brainstorm ideas. Describe what your project could look like. Consider who you want to reach with your project and what you'd like them to learn.

Use the **smart AGRICULTURE Project Concept Map** or create your own.



Assess your conceptual and procedural knowledge as you develop your project.



I create a project question as focus for a **smart AGRICULTURE** project.
I gather and organize information to support my project question.

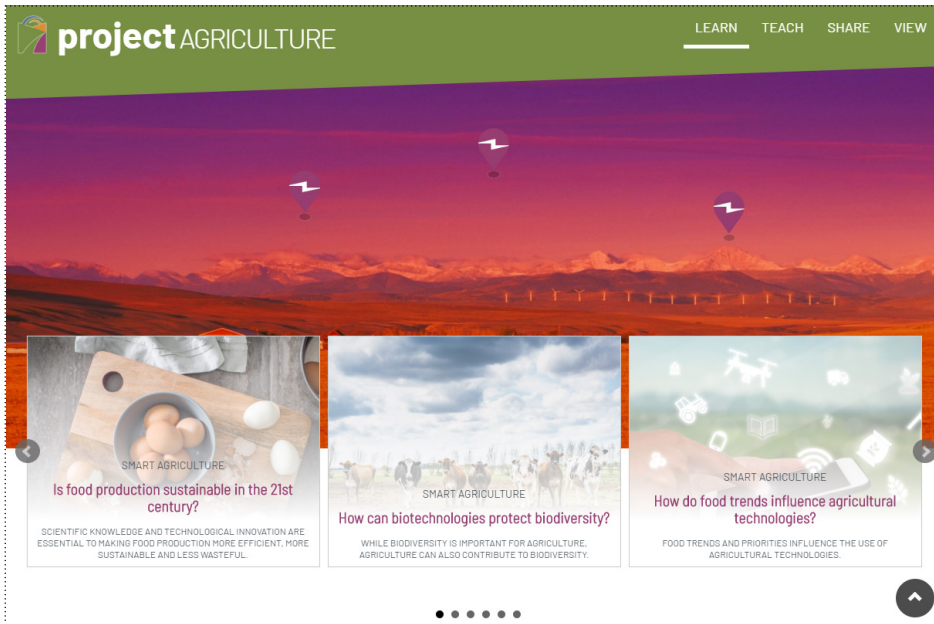


I brainstorm ideas and approaches for my **smart AGRICULTURE** project.



Explore the learning sources and information in the **smart AGRICULTURE** carousel slides on the **project AGRICULTURE** website.

Each carousel slide focuses on a guiding question. Select from the relevant sources in each carousel slide for your project research.



Use the **smart AGRICULTURE Project Planner Template** to plan and create your project. Identify a project design and format.

Shoot a video, build a photo essay, write an op-ed, create an infographic or design your own project format. With your teacher, plan to submit your project to the **project AGRICULTURE** website to share it with other students and Alberta farmers. Choose from the following formats, with a maximum file size of 50 MG:

- ◆ PDF document (Word, PowerPoint, Google Docs or Slides to be saved in PDF format)
- ◆ JPEG, GIF or PNG file
- ◆ Project URL for videos or webpages (including Google Docs, Slides, Youtube, Vimeo or videos hosted on Google Drive)



Use the **Project Pages** to find design suggestions for different types of projects. **Project Pages** can be found in the **Project Tools** booklet or on the **project GUIDES** webpage at www.projectagriculture.ca/share/project-guides/.



I research background information and perspectives connected to smart agriculture issues, topics, actions or strategies.



I choose a project design for my **smart AGRICULTURE** project.

I develop my **smart AGRICULTURE** project.



smart AGRICULTURE project concept map

What are your project interests?



For example, food security, consumer issues, buy local, food fraud, globalization, food waste

Choose **one** focus area and brainstorm ideas.



What will your project look like?

What will we need to research?

Do our ideas need to be narrowed down?

What is the goal of our project?

Who is the audience?

Who can help us?

What do we want the audience to learn?



smart AGRICULTURE project planner template

What is your project question? Relate this to the "need to know" of your project concept.	ACTION

What are your research questions?	ACTION

What is the significant content for your project?	ACTION

What resources do you need? Which resources will you use?	ACTION

What will your final product look like?	ACTION