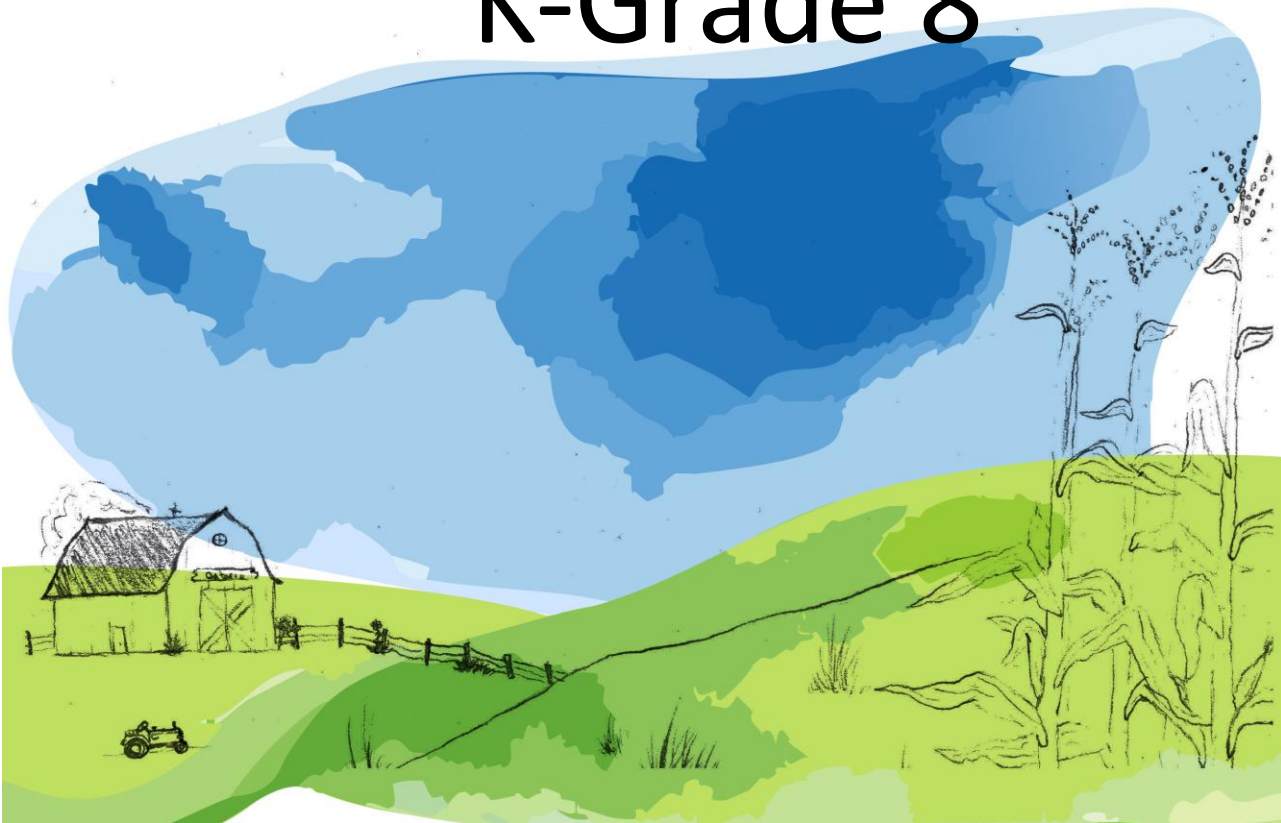




IPM 2025

Curriculum Connections & Resources

K-Grade 8



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@ the IPM:

Come and learn:

- Where your food comes from!
- How science and technology is changing the way we farm!
- How farmers and scientists are working together to produce healthy food, create sustainability, and protect the environment!



Come and see:

- Live animals like cows, sheep and pigs!
- Watch farmers as they demonstrate milking, sheep shearing and more!
- Farm equipment in action!

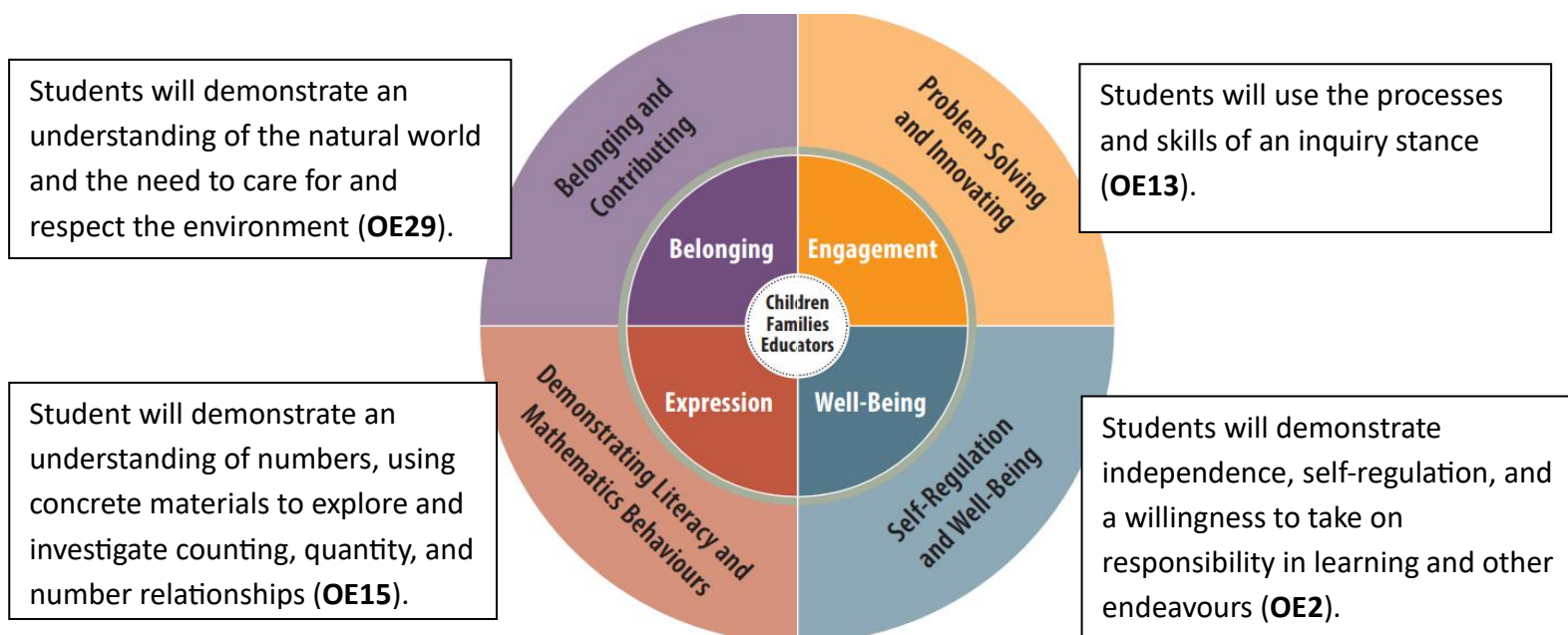
Come and explore:

- What farming looks like where you live!
- Possible careers!
- Ways that you can get involved and help support farmers and agriculture!

After the IPM:

Check out Agricultural Classroom Resources for optional lessons and units to bring agriculture awareness and education to your classroom! Help us build excitement for the STEM applications and challenges that could make your students eager to learn, build important skills, and maybe even start on a fantastic career path! *(Note: many of these resources have application and options beyond the grade level they are listed in, so make sure you explore them all!)*

Kindergarten Curriculum Connections



https://files.ontario.ca/books/edu_the_kindergarten_program_english_aoda_web_oct7.pdf

A great place to play, explore and inquire!

At the IPM, Kindergarten students will engage with displays, interactive stations, and learn first-hand from agriculture specialists. Spending the day on-site, students will be able to apply the stages of an inquiry stance:

- Initial engagement
 - o raise questions about objects and events around them
 - o observe and listen
- Exploration
 - o explore objects and events around them and observe the results of their explorations
 - o make observations, using all of their senses, and generate questions
- Investigation
 - o gather, compare, sort, classify, order, interpret, describe observable characteristics and properties,
 - o notice patterns, and draw conclusions
- Communication
 - o share and discuss ideas, and listen to ideas

Grade 1-8 Curriculum Connections: Mathematics

RESOURCE: Download the [Pork Poop Cycle](#) here and be read to post on a Smart Board, class website or have copies printed for the class.

Primary Activities:

- Have students count how many piglets a sow can have each year.
 - Have students represent this number numerically, with words, and using pictures.
- If you have two sows, how many piglets would there be?
- Have students sort the piglets from one (or two) sows into groups of 2, 4, 5, and 10 and note how many are left over each time.
- Print out the addendum piglet math sheet, and have students sort piglets.

Grade 1:

- **B1.1:** read and represent whole numbers up to and including 50, and describe various ways they are used in everyday life
- **B1.2:** compose and decompose whole numbers up to and including 50, using a variety of tools and strategies, in various contexts

Grade 2:

- **B1.1:** read, represent, compose, and decompose whole numbers up to and including 200, using a variety of tools and strategies, and describe various ways they are used in everyday life
- **B2.1:** use the properties of addition and subtraction, and the relationships between addition and multiplication and between subtraction and division, to solve problems and check calculations

Grade 3:

- **B1.1:** read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life
- **B1.2:** compare and order whole numbers up to and including 1000, in various contexts

Junior Math Activities:

- If you have two sows, how many piglets would there be? Repeat with 3-9 sows.
- Using a variety of tools and strategies, how many piglets would there be with 10, 100 or 1000 sows?
- How much poop would there be with two sows and their offspring? Extend this through all steps of the poop cycle.
- Using the addendum piglet math sheet, ask students to sort the piglets and create ratios and fractions, convert to decimals and percentages to represent the different groups.

Grade 4:

- **B1.1:** read, represent, compose, and decompose whole numbers up to and including 10 000, using appropriate tools and strategies; describe various ways they are used in everyday life
- **B1.2:** compare and order whole numbers up to and including 10 000, in various contexts
- **B2.5:** represent and solve problems involving the multiplication of two- or three-digit whole numbers by one-digit whole numbers and by 10, 100, and 1000, using appropriate tools, including arrays

Grade 5:

- **B1.1:** read, represent, compose, and decompose whole numbers up to and including 100 000, using appropriate tools and strategies, and describe various ways they are used in everyday life
- **B1.7:** describe relationships and show equivalences among fractions, decimal numbers up to hundredths, and whole number percents, using appropriate tools and drawings, in various contexts

Grade 6:

- **B1.1:** read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life
- **B1.6:** describe relationships and show equivalences among fractions and decimal numbers up to thousandths, using appropriate tools and drawings, in various contexts

Intermediate Math Activity:

- Create a table to show the increase in poop productions if you increase the number of sows. Graph this relationship. Students can also create a mathematic expression.
- Create an infographic to share the information on the Pork Poop Cycle.
- According to the information on the Pork Poop Cycle sheet, how much poop does one piglet make? How much corn does one pig eat?

Grade 7:

- **B1.1:** represent and compare whole numbers up to and including one billion, including in expanded form using powers of ten; describe various ways they are used in everyday life

Grade 8:

- **B1.1:** represent and compare very large and very small numbers, including through the use of scientific notation, and describe various ways they are used in everyday life

Grade 7 & 8:

- **D1.4:** create an infographic about a data set, representing the data in appropriate ways, including in tables and scatter plots, and incorporating any other relevant information that helps to tell a story about the data

Want more? Check out this K-8 cross-curricular resource with math curriculum connections:

[AgScape: An Exploration of Egg Farming](#)

Grade 1-8 Curriculum Connections: Language Arts

RESOURCE: [A Collection of Agricultural Images](#) offers three photo collections of farming in Canada.

Primary Activity:

(Cross-curricular with Social Studies)

Using a KWL chart, have students brainstorm as a class, in groups or individually, what they know about farming in the past and today, and what they want to learn.

Revisit the chart after coming to the IPM and complete the learning column of the chart!

Junior Activity:

(Cross-curricular with Social Studies)

Selecting and using a graphic organizer of their choice, have students review all three photo collections and record their observation of farming in Canada across the three different time periods.

Have students observe and note what farming looks like now as they travel around the International Plowing Match. Encourage students to ask questions from the demonstrators!

After your visit to the IPM, have students create an infographic demonstrating the differences between Canadian farming now and in the past.

Intermediate Activity:

(Cross-curricular with History & Geography)

Selecting and using a graphic organizer of their choice, have students review all three photo collections and record their observation of farming in Canada across the three different time periods.

Have students observe and note what farming looks like now as they travel around the International Plowing Match. Encourage students to ask questions from the demonstrators!

After your visit to the IPM, have students write a paragraph describing the differences between Canadian farming now and in the past.

Grade 1-3:

A3.1: apply the knowledge and skills developed in this grade to support learning in various subject areas and identify some ways this learning can be used in everyday life

D1.2: generate and develop ideas about given and chosen topics, using simple strategies, and drawing on various resources, including their own lived experiences, and learning from other subject areas

Grade 4-6:

A3.1: explain how the knowledge and skills developed in this grade support learning in various subject areas and in everyday life, and describe how they enhance understanding and communication

D1: plan, develop ideas, gather information, and organize content for creating texts of various forms, including digital and media texts, on a variety of topics
D2.1: draft texts of various forms and genres, including narrative, persuasive, and informational texts, using a variety of media, tools, and strategies

(D2.1 Grade 6: draft complex texts of various forms and genres, including narrative, expository, and informational texts, using a variety of media, tools, and strategies)

Grade 7-8:

A3.1 analyze and explain how the knowledge and skills developed in this grade support learning in various subject areas and in everyday life, and describe how they enhance understanding and communication

D1: plan, develop ideas, gather information, and organize content for creating texts of various forms, including digital and media texts, on a variety of topics
D2.1 draft complex texts of various forms and genres, including narrative, expository, and informational texts, using a variety of media, tools, and strategies

Grade 1-8: The Arts

Grade 1: Creating and Presenting

- **D1.1:** Create two- and three-dimensional works of art that express feelings and ideas inspired by personal experiences.

Grade 2: Creating and Presenting

- **B1.1:** Engage in dramatic play and role play, with a focus on exploring main ideas and central characters in stories from diverse communities, times, and places.
- **D1.1:** create two- and three-dimensional works of art that express feelings and ideas inspired by activities in their community or observations of nature.

Grade 3 Creating and Presenting

- **B1.1:** engage in dramatic play and role play, with a focus on exploring themes, ideas, characters, and issues from imagination or in stories from diverse communities, times, and places.
- **D1.1:** create two- and three-dimensional works of art that express personal feelings and ideas inspired by the environment or that have the community as their subject.
- **D1.3:** identify and describe a variety of visual art forms they see in their home, at school, in the community, and in visual arts experiences.

Grade 4 Creating and Presenting

- **D1.1:** create two- and three-dimensional works of art that express feelings and ideas inspired by their interests and experiences.
- **D1.3:** use elements of design in art works to communicate ideas, messages, and understandings.

Grade 5 Creating and Presenting

- **D1.3:** use elements of design in art works to communicate ideas, messages, and understandings.

Grade 6 Creating and Presenting

- **D1.1:** create two-dimensional, three-dimensional, and multimedia artworks that explore feelings, ideas, and issues from a variety of points of view.

Grade 7 Creating and Presenting

- **D1.1:** create art works, using a variety of traditional forms and current media technologies, that express feelings, ideas, and issues, including opposing points of view

Grade 8 Creating and Presenting

- **D1.1:** create art works, using a variety of traditional forms and current media technologies, that express feelings, ideas, and issues and that demonstrate an awareness of multiple points of view.
- **D1.3:** use elements of design in art works to communicate ideas, messages, and understandings for a specific audience and purpose.

Art Activities!

- Create a poster to advertise the next IPM
- Collect items and create a diorama that describes your day at the Plowing Match.
- Pick an animal you saw at the IPM and sculpt it!
- Create a digital brochure to promote one of the exhibitor organizations at the IPM (see the website list below)
- As a class, create a mural of all the things you saw at the IPM!
- Design an infographic with healthy food and agriculture facts.
- Create a scarecrow using recycled materials
- Participate in our class quilt challenge!

Grade 1-8 Curriculum Connections: Science and Technology

Grade 1:

- **B2.1:** demonstrate an understanding of the natural environment as a place where living and non-living things are interconnected
- **B2.2:** identify the basic needs of living things, including the need for air, water, food, heat, shelter, and space
- **B2.6:** describe ways in which living things provide for the needs of other living things

Grade 2:

- **B1.2:** assess impacts of various human activities on animals and the places where they live, and describe practices that can minimize negative impacts
- **B2.1:** compare physical characteristics of various animals, including characteristics that are constant and those that change

Grade 3:

- **B1.3:** assess the benefits and limitations of locally grown food
- **B2.8:** describe ways in which plants and animals, including humans, depend on each other
- **E1.1:** assess the importance of soils for society and the environment
- **E1.2:** assess the impact of human activity on soils, and describe ways in which humans can improve the quality of soils and/or lessen or prevent harmful effects on soils

Grade 4:

- **B2.3:** describe the relationship of organisms in a food chain, and classify organisms as producers, consumers, or decomposers

Grade 5:

- **B1.3:** explain how food literacy can support decisions that affect physical and mental health

Grade 6:

- **A3.1:** describe practical applications of science and technology concepts in various occupations, including skilled trades, and how these applications address real-world problems
- **B2.8:** describe the importance of biodiversity in supporting agriculture, including Indigenous agriculture around the world

Grade 7:

- **A3.1:** describe practical applications of science and technology concepts in various occupations, including skilled trades, and how these applications address real-world problems
- **B2.3:** describe roles and relationships between producers, consumers, and decomposers within an ecosystem
- **B2.4:** describe the transfer of energy in a food chain, and explain the effects of altering any part of the chain

Grade 8:

- **A3.1:** describe practical applications of science and technology concepts in various occupations, including skilled trades, and how these applications address real-world problems
- **D2.1:** identify various types of systems
- **D2.2:** describe the purpose, inputs, and outputs of various systems, including systems related to food processing
- **E2.3:** explain how human activity and natural phenomena cause changes in the water table

Experience demonstrations of automation and technological advances in farming, interact with local producers to learn where our food comes from, and see many of these curriculum standards in action at IPM '25!

Grade 1-8: Social Studies, History and Geography

Grade 1:

- **B2.1:** formulate questions to guide investigations into some aspects of the interrelationship between people and the natural and built features of their community, with a focus on some of the short- and long-term effects of this interrelationship
- **B2.2:** gather and organize information on the interrelationship between people and the natural and built features of their community, and on the effects of this interrelationship, using sources that they have located themselves or that have been provided to them

Grade 2:

- **B2.2:** gather and organize information and data about some communities' locations, climate, and physical features, and the ways of life of people in these communities

Grade 3:

- **B1.2:** describe some major connections between features of the natural environment and the type of employment that is available in a region, with reference to two or more municipal regions, including First Nations communities and/or Métis regions, in Ontario
- **B3.5:** describe major types of land use and how they address human needs and wants

Grade 4:

- **B1.1:** analyse some of the general ways in which the natural environment of regions in Canada has affected the development of industry
- **B1.3:** describe some key actions taken by both industries and citizens to address the need for more sustainable use of land and resources
- **B2.2:** gather and organize information and data from various sources to investigate

issues and challenges associated with balancing human needs/wants and activities with environmental stewardship in one or more of the political and/or physical regions of Canada

Grade 5:

- **B2.1:** formulate questions to guide investigations into social and/or environmental issues in Canada from various perspectives, including the perspective of Indigenous peoples and of the level (or levels) of government responsible for addressing the issues

Grade 6:

- **B2.2:** gather and organize information on global issues of political, social, economic, and/or environmental importance, including their impact and responses to them, using a variety of resources and various technologies

Grade 7:

- **A1.1:** describe various ways in which people have responded to challenges and opportunities presented by the physical environment and compare them to the lives of people in present-day Canada.
- **A3.10:** describe some key natural processes and human activities that create and change natural vegetation patterns

Grade 8:

- **A3.2:** identify and describe some ways in which the physical environment can influence the general location and patterns of human settlements
- **A3.3:** identify significant land-use issues and describe responses of various groups to these issues

Grade 1-8: Health and Physical Education

Grade 1:

- **D1.1:** Explain why people need food to have healthy bodies and minds
- **D3.1:** Demonstrate an understanding of how to stay safe and avoid injuries to themselves and others in a variety of situations, using knowledge about potential risks at home, in the community, when online, and outdoors

Grade 2:

- **D2.2:** Demonstrate an understanding of how to make healthy food choices for meals and snacks, considering the factors they can and cannot control

Grade 3:

- **D1.1:** Demonstrate an understanding of how the origins of food (e.g., where the food is grown, harvested, trapped, fished, or hunted; whether and how it is processed or prepared) affect its nutritional value and how those factors and others (e.g., the way we consume and dispose of food) can affect the environment.
- **D2.2:** Apply their understanding of good safety practices by developing safety guidelines for a variety of places and situations outside the classroom, including online.

Grade 4:

- **D2.2:** Apply a decision-making process (e.g., identify potential dangers and risks, consider ways to stay safe, consider the pros and cons of each option, consider whether they need to check with an adult, choose the safest option, act, reflect on their decision, consider whether there is anything they

could improve for next time) to assess risks and make safe decisions in a variety of situations (e.g., when using a wheelchair, cycling, preparing food, going online.

- **D3.1:** Demonstrate an understanding of factors that contribute to healthy development.

Grade 5:

- **D2.1:** Explain how to use nutrition fact tables and ingredient lists on food labels to make informed choices about healthy and safe foods.
- **D3.1:** Describe how advertising, food marketing, and media affect food choices and explain how these influences can be evaluated to help people make healthier choices.

Grade 6:

- **D2.1:** Apply their knowledge of medical, emotional, practical, and societal factors that influence eating habits and food choices to develop personal guidelines for healthier eating.

Grade 7:

- **D2.1:** Demonstrate the ability to develop healthier eating patterns, using information about the role that different foods play as contributing or preventive factors in a variety of health disorders.

Grade 8:

- **D2.1:** Evaluate personal eating habits and food choices based on the recommendations in Canada's Food Guide, taking into account behaviours that support healthy eating.

Agricultural Classroom Resources

Grade 1: Bees and Honey! This group of websites offer worksheets, activity stations, and lesson plans on our favourite pollinators and their product, honey! The Honey Council's resources directly related to Alberta's curriculum but there's lost of overlap. Take a look!

<https://www.ontariohoney.ca/educators>

<https://honeycouncil.ca/chc-teachers-kit-%E2%80%A2-grades-1-to-3/>

<https://ingenium.ca/en/learn/teachers-zone/resources/busy-bees/>

Grade 2: Egg Education (Egg Farmers of Ontario): Check out the many curriculum egg-stentions available here! Colouring and activities pages, a variety of subject and level lesson plans that can be tailored for your class, and 5 exciting science experiments are just the beginning. Sign your class up for the Farm to Table Student Eggs-perience ; a comprehensive 3-part program, the Farm to Table Eggs-perience invites Ontario Egg Farmers right into your classroom!

<https://www.getcracking.ca/education/>

Grade 3: Good in Every Grain: Are your students budding entrepreneurs? Engage their interest with Ontario Farming STEMterprise. Help them build their skills in science, health, language, math, and more. Our FREE easy-to-use curriculum-based program (can be modified for long term, month-by-month study or shorter term unit) helps students learn about innovation through agriculture. You'll be impressed by what your students can achieve!

<https://goodineverygrain.ca/ontario-farming-stemterprise/>

Grade 4: Farm Food 360: Tour twenty-two different farms ranging from dairy to beef to a dry bean farm. Using interactive technology, students will "wander" around the farm learning how each farm operates. Seeing our food being made, technology at work and more! Each tour concludes with a quiz. Have students complete them individually or in groups so they can present their findings to the class!

<https://www.farmfood360.ca/>

Grade 5: Six by Sixteen is the Ontario Federation of Agriculture's food literacy program. Help your class to learn more about the agricultural industry through this classroom game of Jeopardy, or challenge them to learn "six by sixteen" so they can plan and prepare six nutritious, locally sourced meals by the time they are sixteen years old!

<https://sixbysixteen.me/#resources>

Grade 6: Ontario Pork: Offering lesson plans for grade 5 to 10, Ontario Pork's resources for Grade 5 and 6 covers a math and language activity on caring for pigs at different stages of their lives. All materials are provided with links and include an assessment tool!

<https://www.ontariopork.on.ca/Public-Education>

Grade 7: Milk: Dairy Education Program

Register for your free teacher account, and access tons of learning modules including "Environmental Technology on the Farm" which looks at how farmers are able to take the waste product from cows to fuel their farm and the community around them, and have students assess the impact of selected technologies on the environment and evaluate the importance of individuals to the environment.

<https://edu.milk.org/>

Grade 8: Ontario Beans: In this lesson plan designed for grade 7-8 students, Ontario Beans challenges classes to become 'Bean Innovators' as they gain an understanding of the Carbon Cycle as a whole, explore Climate Change and the Agriculture Industry's relationship with the carbon cycle, and examine a present-day, real-world issue faced by Bean Growers in Ontario. Curriculum expectations, lesson plans and materials, and assessment tools are included

<https://ontariobeans.on.ca/educators/>

Additional Resources

4H Ontario <https://4-hontario.ca/>

Agriculture and Agri-Food Canada <https://agriculture.canada.ca/>

Agriculture in the Classroom Canada <https://aitc-canada.ca/en-ca/>

AgScape <https://agscape.ca>

Beef Farmers of Ontario <https://www.ontbeef.ca/>

Canada's Food Guide <https://food-guide.canada.ca/en/>

Canadian Agriculture and Food Museum <https://ingeniumcanada.org/agriculture>

Dairy Farmers of Ontario <https://edu.milk.org/>

Egg Farmers of Ontario <https://www.getcracking.ca/education>

Farm and Food Care Ontario <https://www.farmfoodcareon.org/>

Fields to Forks <https://www.fieldstoforks.ca/>

Good in Every Grain <https://goodineverygrain.ca/good-in-every-classroom/>

Ontario Bean Growers Association <https://ontariobeans.on.ca/>

Ontario Beekeepers Association <https://www.ontariohoney.ca/>

Ontario Canola Growers <https://www.ontariocanolagrowers.ca/>

Ontario Federation of Agriculture <https://sixbysixteen.me/>

Ontario Ministry of Agriculture, Food and Agribusiness
<https://www.ontario.ca/page/ministry-agriculture-food-and-agribusiness>

Ontario Pork <https://shop.ontariopork.on.ca/education/> or
<https://www.experienceontariopork.com/>

Ontario Potatoes <https://www.ontariopotatoes.ca/home>

Ontario Sheep Farmers <https://www.ontariosheep.org/>

Turkey Farmers of Ontario <https://ontarioturkey.ca/>

Addendum: Piglet Math

