TEACHER'S GUIDE

CAMPAGSCAPE

A Discovery of Food and Farming Online

AgScape®

About this Resource

Curriculum connections updated in August 2022.

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About Us

In 1991, Ontario Agri-Food Education was founded to promote agriculture and food learning in the classroom.

AgScape (registered incorporation name Ontario Agri-Food Education Inc.) is a registered charity incorporated under the Agricultural and Horticultural Organizations Act of Ontario. The Ontario Ministry of Agriculture, Food and Rural Affairs provides partial funding in support of AgScape's programs and services.

OUR VISION

Leading a movement to bring agriculture and food education into all Ontario classrooms. Inspiring youth to see their role within the food system that's a vehicle for social, economic, and environmental impact.

OUR MISSION

Through experiential and science-based programs, we empower Ontario youth and educators to understand their relationship to the agriculture and food system and ignite interest in related careers.

OUR VALUES

Integrity

We are committed to transparency, science, and accurate information.

Passion

We are passionate about helping others connect the role of agriculture and food to our economic, environmental, and social wellness.

Excellence

We inspire food literacy through best practices in student learning.

Impact

We are driven to make an impact at an individual and community level.

Leadership

We foster a culture of partnership through collaboration.

Inclusivity

We ensure diversity, equity and inclusion in all that we do.

Safety

We prioritize youth, volunteer and staff safety above all.

Introduction

Camp AgScape is a state-of-the art, one-of-a-kind, fun and interactive Virtual Camp Experience for children and youth from ages 5 to 18. The program is a fully accessible web platform which includes highly interactive, meaningful, and gamified educational activities to support parents, teachers and students. More specifically, Camp AgScape enables students of all ages to learn about food, develop a keen understanding of where their food comes from, discover a wide range of careers they can pursue over the course of their lives, and explore how they can become actively involved in food decisions. Camp AgScape offers structured daily virtual programming for four age groups: Honeycrisp (ages 5-8), Alpaca (ages 9-12), Evergreen (ages 12-15) and Clydesdale (ages 16-18).




Each age group has four weeks of camp, each with a designated theme:

Caring for Animals, Grow a Green Thumb, From Earth to Fork, Be a Scientist.

The weekly activities explore food, agriculture and career topics such as local food, food security, agriculture, technology and innovation, and Indigenous issues and culture. Weekly challenges are also available, and certificates are provided as participants complete each camp experience.

Camp AgScape can be used in the classroom. This teacher guide provides teachers with links to specific Camp AgScape activities as well as the curriculum expectations fulfilled in these activities, allowing them to further explore Camp AgScape as well as food, science, and agriculture topics in their classroom.

Scan to Access
Camp AgScape!

Teacher Resource

The purpose of this resource is to provide teachers with activities and curriculum connections to allow them to use a sample of Camp AgScape games and activities in their classroom. Above all, it is worth noting that the materials of Camp AgScape are developed by Ontario certified teachers and are linked to the curriculum and Science, Technology, Engineering, Arts and Math (STEAM). These materials provide more in-depth information about specific agricultural products such as eggs, chicken, beef, beans and crops through engaging games, interactive challenges, virtual trips and exciting learning activities that promote an understanding of food, its production and supply/demand challenges. This resource will facilitate the incorporation of Camp AgScape in the classroom by showing how the selected camp activities are curriculum-linked and which expectations are covered in the activities.

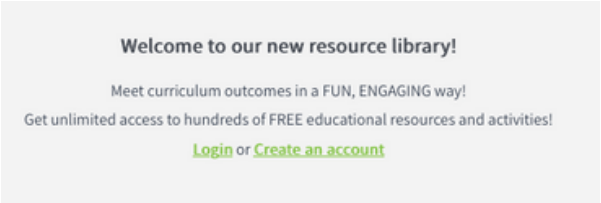
Curriculum Connections

Camp AgScape connects with curriculum expectations from the Grade 1 to Grade 12 Ontario curriculum: Language Arts, Science, Health and Physical Education, Practical Applied Arts, History, Geography, and Mathematics as well as play-based learning for Kindergartner. Included in this teacher guide is a list of the key overall and specific expectations for the selected activities in each Camp AgScape age stream.

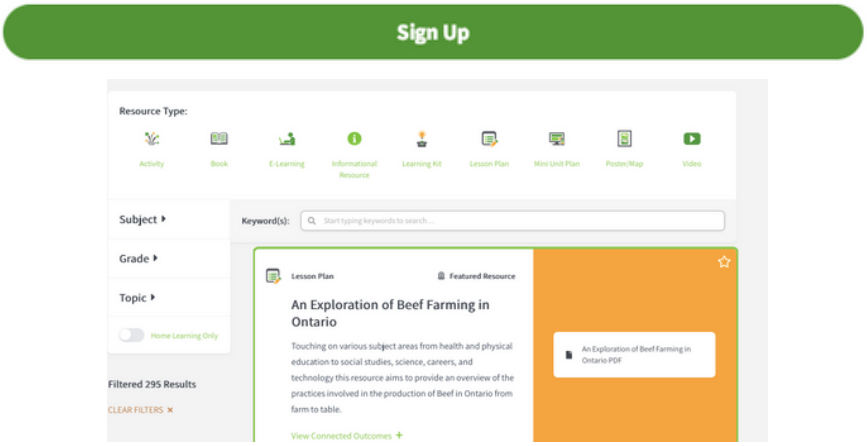
How To - Resource Library

Many of the enrichment resources can be found on the AgScape Resource Library. Below you'll find a step-by-step guide to create an account in order to access these digital resources.

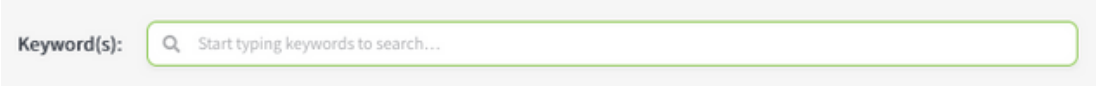
1. Head over to the AgScape website (you can use the QR code below too) and click on 'resources'. This will redirect you to the new resource library.
2. Click on 'create an account'



3. Enter the necessary information to create your account (name, province, email, etc.)
4. Click the 'sign up' button. You now will have access to the resources and will be brought to this page.



5. To find the 'Enrichment Resources', type keywords from the resource title in the search bar. For example, if the resource title is 'An Exploration of Beef Farming in Ontario', you can type 'Beef Farming'.



Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity (United Nations, n.d.).

The Camp AgScape activities connect with certain SDGs. Consult the SDG sheets to see which activities connect with which SDGS. See the specific SDGs below.

HONEYCRISP

AGES 5-8

Camp Honeycrisp is a four-week program designed for children ages 5 to 8. Camp participants are invited to explore the world of food and agriculture in Ontario and Canada. On the following pages, please find a weekly schedule of "Honeycrisp" curriculum-linked activities for your students in grades 1, 2 and 3 as well as being play-based for Kindergarten.

Curriculum Connections

Science

Understandings Life Systems: Needs and Characteristics of Living Things
By the end of Grade 1, students will:
1.2 describe changes or problems that could result from the loss of some kinds of living things that are part of everyday life;
2.2 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources;
2.3 investigate and compare the physical charac- teristics of a variety of plants and animals, including humans
2.4 investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources;
3.2 identify the physical characteristics (e.g., size, shape, colour, common parts) of a variety of plants and animals (e.g., sunflowers are tall, with a long stalk, leaves, and big, round, yellow flowers with hundreds of seeds; dogs can be big or small, come in many shapes and colours, have four legs, and usually have a tail and are covered with fur)
3.6 identify what living things provide for other living things.
3.7 describe how the things plants and animals use to meet their needs are changed by their use and are returned to the environment in different forms

Understanding Structures and Mechanisms Materials, Objects, and Everyday Structures
By the end of Grade 1, students will:
2.1 follow established safety procedures during science and technology investigations
2.5 use appropriate science and technology vocabulary

Understanding Life Systems: Growth and Changes in Animals
By the end of Grade 2, students will:
1.2. identify positive and negative impacts of various human activities on animals and animal habitats. Form an opinion on one of them and suggest ways in which the impact can be minimized or enhanced.

Understanding Life Systems: Growth and Changes in Plants
By the end of Grade 3, students will:
3.7. describe the different ways in which plants are grown for food or explain the advantages and disadvantages of locally grown and organically produced food, including environmental benefits;
3.8. identify examples of environmental conditions that may threaten plant and animal survival.

Curriculum Connections

Understanding Earth and Space Systems Soils in the Environment
By the end of Grade 3, students will:
1.1 assess the impact of soils on society and the environment, and suggest ways in which humans can enhance positive effects and/or lessen or prevent harmful effects.
1.2 assess the impact of human action on soils, and suggest ways in which humans can affect soils positively and/or lessen or prevent harmful effects on soils.
2.3 use scientific inquiry/experimentation skills (see page 12), and knowledge and skills acquired from previous investigations, to determine which type(s) of soil (e.g., sandy soil, clay soil, loam) will sustain life.
3.1 identify and describe the different types of soils.
3.4 describe ways in which the components of various soils enable the soil to provide shelter/ homes and/or nutrients for different kinds of living things.

Mathematics

Number: Operations
By the end of Grade 1, students will:
2.1 use the properties of addition and subtraction, and the relationship between addition and subtraction, to solve problems and check calculations
2.3 use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 20, and explain the strategies used

Social Studies

Understanding Context: The Elements of the Local Community
By the end of Grade 1, students will:
3.4 demonstrate an understanding of the basic elements of a map when reading and constructing simple maps showing places that are significant to them

People and Environments: Global Communities
By the end of Grade 2, students will:
1.2 describe some of the ways in which two or more distinct communities have adapted to their location, climate, and physical features

Understanding Context: Life in Colonial Canadian Communities
By the end of Grade 3, students will:
3.1 identify various First Nations and some Métis communities in Upper and Lower Canada from 1780 to 1850, including those living in traditional territory and those who moved or were forced to relocate to new areas in response to European settlement, and locate the areas where they lived, using print, digital, and/or interactive maps or a mapping program

Curriculum Connections

Language Arts

Reading

By the end of Grade 1, 2, 3 students will:

1. read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;
3. use knowledge of words and cueing systems to read fluently;

Writing

By the end of Grade 1, 2, 3 students will:

1. generate, gather, and organize ideas and information to write for an intended purpose and audience;

Health and Physical Education

Healthy Living

By the end of Grade 1, students will:

1.1 explain why people need food to have healthy bodies and minds
1.2 demonstrate an understanding of essential knowledge and practices for ensuring their personal safety
2.1 describe how Canada's Food Guide can help them develop healthy eating habits
2.2 demonstrate an understanding of how to make healthy food choices for meals and snacks, considering the factors they can and cannot control.
2.4 apply their knowledge of essential safety practices to take an active role in their own safety at school

Healthy Living

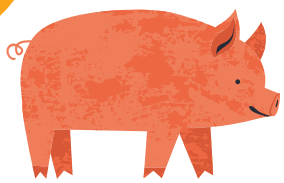
By the end of Grade 2, students will:

2.2 demonstrate an understanding of how to make healthy food choices for meals and snacks, considering the factors they can and cannot control

Healthy Living

By the end of Grade 3, students will:

1.1 demonstrate an understanding of how the origins of food affect its nutritional value and how those factors and others can affect the environment
3.1 explain how local foods and foods from various cultures can be used to expand their range of healthy eating choices



Day 1 : Caring for Animals

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about farm animals raised in Ontario/Canada? What is your favorite farm animal and why? Do you know some of the needs of animals?
2. What have you heard about Canadian Beef? What have you heard about Beef breeds?
3. Have your ever met a farmer or been to a farm? What was it like?

Enrichment Resources

- Animal Needs
- Raising Farm Animals
- Farm Animals & Me

Daily Activities

AM

1. Five Freedoms Activity

2. Addition on the Farm

PM

1. Beef in Canada

2. Beef Knowledge Quiz

Click to access the Resource Matrix

Notes

NAME: .....

NAME: .....

Student Handout

What are some of animals' needs? Is it important to care for animals? Why?

What did you learn about beef in Canada?

How do farms work, and why are they important? Give the names of different farm animals and crops.

What is the most interesting thing you learned today?

Day 2 : Grow a Green Thumb

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you think about farming? What do you know about the history of farming in Canada?
2. What kinds of crops (fruits or vegetables) can be grown on a Canadian farm?
3. Why are some fruits and vegetables only available at certain times of the year?
4. What do you know about enzymic browning?

Enrichment Resources

- Fruit and Veggies Everyday!
- Virtual Food and Farm Field Trip: Strawberry Farm

Daily Activities

AM

1. Where do I Grow?

2. Farming is Canada

PM

1. It's Fruitastic!

2. How to Keep Your Apples From Turning Brown. Science Experiment.

Click to access the Resource Library

Click for Virtual Food & Farm Field Trips

NAME:

Notes

NAME:.....

Student Handout

Where does food come from? Where do fruits come from?

Where do most crops grow?

What is the most interesting apple fact you learned?

What is the most interesting thing you learned today?

Day 3 : Earth to Fork

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about the journey of food? Where does the food on your plate usually come from?
2. What do you know about beans and pulses? Do you like to eat beans? Why or why not?
3. Do you know any expressions or sayings that involve food? Which ones?

Enrichment Resources

- An Exploration of Egg Farming: Teacher's Guide, Grades K-8
- Cool Beans
- Cooking with Pulses

Daily Activities

AM

1. Beans are Cool!

2. Can you Guess What These Food Idioms Mean?

PM

1. The Journey of the Egg

2. The Journey of the Pumpkin

Click to access the Resource Library

NAME:.....

Notes

NAME: .....

Student Handout

What is your favorite food idiom?

What was something about egg production or pumpkin production that you didn't know before?

What is the pumpkin life cycle? Did anything about it surprise you?

What is the most interesting thing you learned today?

Day 4 : Be a Scientist

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you think life would be like without soil? What things wouldn't we have if we did not have soil?
2. What is a tractor? How does this tool help farmers?
3. What does soil science mean to you?
4. What do you know about safety measures on the farm?

Enrichment Resources

- All About Soil
- Virtual Food and Farm Field Trip: Soil Health Interpretive Centre

Daily Activities

AM

1. Be Safety Smart!
2. Careers & Tractor

PM

1. Soil Superheroes
2. Shake Rattle & Roll

Click to access the Resource Library

Click for Virtual Food & Farm Field Trips

NAME:.....

Notes

NAME:.....

Student Handout

What is a fact about soil you learned? Name the different types of soil.

What is team compost?

What was something new about farm safety you learned?

What are careers connected to tractors?

Day 5 : Nutrition

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about nutrition?
2. What information does a food label give us?
3. What is healthy food vs. unhealthy food?
4. What do you like to put in your salad?
5. Why are some fruits and vegetables only available at certain times of the year?

Enrichment Resources

- Healthy Eating Habits
- Eating Healthy with Canada's Food Guide

Daily Activities

AM

1. Nutrition Facts!

PM

1. Your Salad Activity

Click to access the Resource Library

Click to book a Teacher Ambassador Lesson

NAME:.....

Notes

NAME: .....

Student Handout

How can we make healthy food choices?

Why do you think eating healthy is important?

What are the nutrition facts of the foods you like to eat?

Define seasonal eating according to what you learned.

ALPACA
AGES 9-12

The Alpaca camp consists of four weeks of agriculture, food, and science related programming designed for students from ages 9-12. On the following pages, please find a weekly schedule of curriculum-linked "Alpaca" activities for your students in grades 4, 5, 6 and 7.

Curriculum Connections

Science

Understanding Life Systems Habitats and Communities
By the end of Grade 4, students will:
1.1 analyse the positive and negative impacts of human interactions with natural habitats and communities), taking different perspectives into account, and evaluate ways of minimizing the negative impacts.
3.1 demonstrate an understanding of habitats as areas that provide plants and animals with the necessities of life
3.3 identify factors that affect the ability of plants and animals to survive in a specific habitat

Understanding Life Systems Biodiversity
By the end of Grade 6, students will:
3.1 identify and describe the distinguishing characteristics of different groups of plants and animals.
3.2 demonstrate an understanding of biodiversity as the variety of life on earth, including variety within each species of plant and animal, among species of plants and animals in communities, and among communities and the physical landscapes that support them

Social Studies

Heritage and Identity: Early Societies to 1500 CE
By the end of Grade 4, students will:
A3.1 identify the location of some early societies, including at least one First Nation and one Inuit society, on a globe or on print, digital, and/or interactive maps, and demonstrate the ability to extract information on early societies' relationship with the environment from thematic maps

People and Environments: Political and Physical Regions of Canada
By the end of Grade 4, students will:
B3.1 identify various physical regions in Canada, and describe their location and some of the major ways in which they are distinct from and similar to each other.
B3.2 identify some of the main human activities, including industrial development and recreational activities, in various physical regions of Canada

Heritage and Identity: Interactions of Indigenous Peoples and Europeans Prior to 1713, in what would Eventually Become Canada
By the end of Grade 5, students will:
A2.3 analyse and construct maps as part of their investigations into interactions among Indigenous peoples, among Europeans, and between Indigenous and European people in what would eventually become Canada

Curriculum Connections

Heritage and Identity: Communities in Canada, Past and Present
By the end of Grade 6, students will:
A1.2 analyse some of the contributions that various First Nations, Métis, and Inuit communities and individuals have made to Canada
A3.1 identify the traditional Indigenous and treaty territory or territories on which their community is located

People and Environments: Canada's Interactions with the Global Community
By the end of Grade 6, students will:
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

Canada, 1800-1850: Conflict and Challenges
By the end of Grade 7, students will:
B2.6 evaluate evidence and draw conclusions about perspectives of different groups and communities, including First Nations, Métis, and/or Inuit communities, on some significant events, developments, or issues that affected Canada and/or people in Canada during this period

Language Arts

Reading
By the end of Grade 4, 5,6, 7, students will:
1. read and demonstrate an understanding of a variety of literary, graphic, and informational texts, using a range of strategies to construct meaning;

Writing
By the end of Grade 4, 5,6, 7, students will:
1. generate, gather, and organize ideas and information to write for an intended purpose and audience;

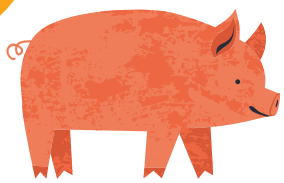
Curriculum Connections

Health & Physical Education

Healthy Living
By the end of Grade 4, students will:
D1.1 identify the key nutrients provided by foods and beverages, and describe their importance for growth, mental and physical health, learning, and physical performance
D2.1 identify personal eating habits through self-monitoring over time, and set a goal for developing healthier eating habits, on the basis of the recommendations and guide- lines in Canada's Food Guides

Healthy Living
By the end of Grade 5, students will:
D2.1 explain how to use nutrition fact tables and ingredient lists on food labels to make informed choices about healthy and safe foods

Healthy Living
By the end of Grade 6, students will:
D3.1 explain how healthy eating and active living work together to improve a person's overall physical and mental health and well-being



Day 1 : Caring for Animals

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Have you ever visited a farm? What would you want to learn about farms or farming?
2. What do you know about Canadian agriculture? Do you know what animals are raised in Ontario/Canada?
3. What does the term "life cycle"mean to you?
4. Do you know how eggs get to the grocery store?

Enrichment Resources

- The Cycle of Agriculture
- Grown and Produced in Ontario

Daily Activities

AM

1. Five Freedoms

PM

1. What is a Farm?

2. Breeding Chickens

Click to access the Resource Library

NAME:.....

Notes

NAME: .....

Student Handout

What are some of animals' needs and rights? Why is it important to care for animals?

What did you learn about chickens?

How do farms work, and why are they important? What types of farms are there in Ontario? Name a few.

What is the most interesting thing you learned today?

Day 2 : Grow a Green Thumb

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What crops grow in Ontario/Canada?
2. What do you know about First Nations peoples in Ontario? Their reserves?
3. What do you know about maple syrup production in Canada?
4. Why are some fruits and vegetables only available at certain times of the year?
5. Where do potatoes come from?

Enrichment Resources

- Virtual Food and Farm Field Trip: Potato Farm
- Three Sisters
- The Sky-Woman

Daily Activities

AM

1. Bill Nye Plants

2. Potatoes

PM

1. First Nations Interactive Map

2. All About Maple Syrup

Click to access the Resource Library

Click for Virtual Food & Farm Field Trips

NAME:.....

Notes

NAME: .....

Student Handout

What did you learn about Indigenous peoples? What are some of the links between Indigenous peoples and agriculture? Maple syrup?

What kinds of potatoes are there? Where are potatoes produced in Canada? ---

---

What is photosynthesis? How is linked in plants?

What is the most interesting thing you learned today?

Day 3 : Earth to Fork

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Compare and contrast "local" and "global" food. What do you notice about the different types of foods, their "food miles"?
2. When you eat breakfast, lunch and dinner, where do you think your food comes from? Does most of your food travel from near or far? Why?
3. What do you imagine the chocolate-making process to be like?

Enrichment Resources

- From This to That: Food Processing in Canada
- Chickpea Chocolate Bark Recipe

Daily Activities

AM

1. ·Where Does Your Food Come From?

2. The Farm to Fork Process

PM

1. Where Does Chocolate Come From?

Click to book a Teacher Ambassador Lesson

NAME:.....

Notes

NAME: .....

Student Handout

What did you learn about the farm to fork process? Describe this process.

How does the farm to fork process apply to chocolate?

What resources are necessary to make a blueberry muffin?

What is the most interesting thing you learned today?

Day 4 : Be a Scientist

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. How has technology changed or improved production for farmers?
2. What kinds of farm technology do you know about? Do you know any other tractor innovations?
3. What do you imagine the future of food to be?
4. What does"cultured meat" mean to you?

Enrichment Resources

- Technology and Innovation Infographics
- Growing for the Future

Daily Activities

AM

1. Tractors and Farm Machinery

2. Circle Ag Technologies

PM

1. The Future of Food

Click to access the Resource Library

NAME:.....

Notes

NAME: .....

Student Handout

What technology can you find on a farm, in agriculture?

What is cultured meat? How is it similar/different to "regular" meat?
What are smart factories? ---

What is the history of tractors? Describe it.

What is the most interesting thing you learned today?

Day 5 : Innovation

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about genetics? DNA?
2. What kinds of farm technology do you know about? Do you know any other tractor innovations?
3. What do you imagine the future of food to be?
4. What does"cultured meat" mean to you?

Enrichment Resources

- Strawberry FAQ
- Teacher Ambassador Program: Biotechnology

Daily Activities

AM

1. Genetics and Agriculture

PM

1. Strawberry DNA Extraction

Click to access the Resource Library

Click to book a Teacher Ambassador Lesson

NAME:.....

Notes

NAME: .....

Student Handout

What do you think of genetic engineering?

What are biotechnology plants?

According to your thought process, how are genetics an innovation in agriculture? ---

---

What did you think about the experiment? What is lysis?

EVERGREEN
AGES 13-15

Camp Evergreen provides a four-week agriculture, food and science program for students ages 13-15. On the following pages, please find a weekly schedule of selected curriculum-linked "Evergreen" activities that connects youth in grades 8, 9 and 10 to various agriculture and food themes.

Curriculum Connections

Geography

Geography of Canada, Grade 9, Academic (CGC1D)
Geographic Inquiry and Skill Development
By the end of Grade 9, students will:
A1.1 formulate different types of questions to guide investigations into issues in Canadian geography
A1.4 interpret and analyse data and information relevant to their investigations, using various tools, strategies, and approaches appropriate for geographic inquiry

Issues in Canadian Geography: Liveable Communities
By the end of Grade 9, students will:
E1.1 analyse the effects of food production practices, distribution methods, and consumer choices on the sustainability of Canada's food system
E1.3 analyse the effects of individual lifestyle choices on energy consumption, and production, and assess the implications for sustainability in Canada;
E2.1 assess the impact of urban growth on natural systems (ex: impact of urban sprawl, vehicle use, and waste disposal on water and air quality). Explain how natural and human systems change over time and from place to place;
E2.2 analyse various economic, social, and political impacts of urban growth.

Geography of Canada, Grade 9, Applied (CGC1P)
Issues in Canadian Geography: Geographic Inquiry and Skill Development
By the end of Grade 9, students will:
A1.1 formulate different types of questions to guide investigations into issues in Canadian geography
A1.4 interpret and analyse data and information relevant to their investigations, using various tools, strategies, and approaches appropriate for geographic inquiry

Issues in Canadian Geography: Managing Canada's Resources and Industries
By the end of Grade 9, students will:
C2.2 analyse from a geographic perspective, issues related to the development, extraction, and management of various natural resources found in Canada.

Issues in Canadian Geography: Liveable Communities
By the end of Grade 9, students will:
E1.3 describe ways in which communities can improve their environmental sustainability
E1.4 identify actions that individuals can take to live more sustainably, and explain the benefits for their local community

Curriculum Connections

Science

Science, Grade 9, Academic and Applied (SNC1D/ SNC1P)
Biology
By the end of Grade 9, students will:
B1. assess the impact of human activities on the sustainability of terrestrial and/or aquatic eco- systems, and evaluate the effectiveness of courses of action intended to remedy or mitigate negatives impacts.

Science, Grade 10, Academic (SNC2D)
Earth and Space Science: Climate Change
By the end of Grade 10, students will:
D1.1 analyse current and/or potential effects, both positive and negative, of climate change on human activity and natural system;
D2.1 use appropriate terminology related to climate change, including, but not limited to: albedo, anthropogenic, atmosphere, cycles, heat sinks, and hydrosphere;
D3.8 identify and describe indicators of global climate change.

Science, Grade 10, Applied (SNC2P)
Earth and Space Science: Earth's Dynamic Climate
By the end of Grade 10, students will:
D1.1 analyse, on the basis of research, various ways in which living things and natural systems have been affected by climate change;
D3.7 identify indicators of global climate change

Health & Physical Education

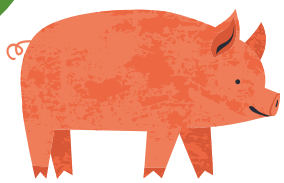
Healthy Living
By the end of Grade 8, students will:
D2.1 evaluate personal eating habits and food choices on the basis of the recommendations in Canada's Food Guide, taking into account behaviours that support healthy eating

Healthy Active Living Education, Grade 9, Open (PPL1O)
By the end of Grade 9, students will:
C2.1 apply their knowledge of basic nutrition principles and healthy eating practices to develop a healthy eating plan
C3.1 analyse the influence of social and environmental factors on food and beverage choices
Healthy Active Living Education, Grade 10, Open (PPL2O)
By the end of Grade 10, students will:
C2.2 assess the nutritional implications of a variety of dietary choices, including those reflecting current dietary trends, and explain how they can make personal choices that will provide the nutritional requirements for a healthy, active life

Curriculum Connections

Social Sciences & Humanities

Food and Nutrition, Grade 9 or 10, Open (HFN1O/2O)
Local and Global Foods
By the end of Grade 9 or 10, students will:
D1.1 identify the different types of foods produced in Canada
D1.3 explain why certain foods are imported from other countries
D1.5 plan and prepare a food item or items and identify the source of most of the ingredients
D3.1 identify the components of food security
D3.2 explain why some people in Canada cannot achieve food security



Day 1 : Caring for Animals

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. How much do you know about Canadian agriculture? Do you know what animals are raised in Ontario/Canada?
2. What do you know about beef cattle and horses?
3.What is your opinion of farmers and farming in general?
4. How would you define animal welfare? How does it relate to agriculture?

Enrichment Resources

- An Exploration of Beef Farming in Ontario
- Agriculture in Canada Infographics

Daily Activities

AM

1. Beef Anatomy

2. Horses

PM

1. Farm Glossary

Click to access the Resource Library

NAME:.....

Notes

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Student Handout

What did you discover about animals and agriculture in Ontario and Canada? Name and describe three parts of the anatomy of a beef cow.

Name three new farm terms you learned today.

In your opinion, what is special about agriculture in Ontario?

What is the most interesting thing you learned today?

Day 2 : Grow a Green Thumb

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Is the amount of land available for growing food increasing or decreasing? Why?
2. What do you know about Indigenous Peoples?
3. Do you know what kinds of farms there are in Ontario? Have you already visited a farm?
4. What danger does climate change pose to Canadian agriculture? Explain.

Enrichment Resources

- Climate Change: Meeting the Challenge
- Climate Change Infographics

Daily Activities

AM

1. Indigenous People and Climate Change

2. Sustainability

PM

1. Ontario Agri-Food Map

Click to access the Resource Library

NAME: .....

Notes

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Student Handout

What did you learn about Indigenous peoples? How are Indigenous peoples particularly affected by the effects of climate change?

How would you define sustainability? How can we be more sustainable?

What does local food mean to you?

What is the most interesting thing you learned today?

Day 3 : Earth to Fork

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Think of food products that we cannot grow in Canada (bananas, coffee, etc.). Why can't we grow these foods here? Where do they come from?
2. What does "global" and "local" mean to you?
3. What international foods have you tried?
4. Think about some of ways people commonly approach "ending hunger." Do they work?

Enrichment Resources

- Before the Plate Teacher Guide
- Food Security Infographics

Daily Activities

AM

1. How Far Does Your Food Travel?

2. Sushi

PM

1. Food Insecurity in Canada

Click to access the Resource Library

NAME: .....

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Student Handout

What did you learn about the farm to fork process? How does our food travel to our plates?

What is food security? What are some causes and consequences of food insecurity? ---

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Name a Sushi fun fact you learned.

What is the most interesting thing you learned today?

Day 4 : Be a Scientist

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. In your opinion, what is the most important reason for creating improved agriculture machinery?
2. What else do you know about technologies used in agriculture to stimulate food production?
3. What does the word "biotechnology" mean to you?
4. What is your impression of eggs and food safety?

Enrichment Resources

- Biotechnology Infographics
- An Exploration of Egg Farming: Teacher's Guide. Grades K-8

Daily Activities

AM

1. Plant Biotechnology

2. Farm Tour Mozzarella

PM

1. Egg Engineering & Safety Activity

Click to access the Resource Library

NAME:.....

Notes

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Student Handout

What did you learn about plant biotechnology? How is a hybrid crop produced?

What does genetic breeding entail?

Why are egg cartons important?

What is the most interesting aspect of the mozzarella making process?

Day 5 : Food & Labels

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about food labels? What do they tell us? Why are they important?
2. Reflect on food trends or phenomena. How do you think food and food consumption has changed historically?
3. What factors affect one's access to food?
4. What does plant-based mean to you?

Enrichment Resources

- How Does A Label Influence My Choice
- #MyFoodChoice

Daily Activities

AM

1. What's on a Food Label?

PM

1. Plant Protein

Click to access the Resource Library

NAME:.....

Notes

NAME: .....

Student Handout

What's something new you learned about nutrition and food?

Why is portion size such an important piece of information on food labels? Do you pay attention to portion size when you drink a bottle of pop, for example?

Name examples of plant-based protein. Which are you most likely to eat? Why? ---

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What is the most interesting thing you learned today?

CLYDESDALE
AGES 16-18

Camp Clydesdale features four weeks of agriculture and food themed programming agriculture, food, and science related programming for students from ages 16-18. On the following pages, please find a weekly schedule of curriculum-linked "Clydesdale" activities that will allow youth to develop essential agriculture and food literacy skills.

Curriculum Connections

Geography

Physical Geography: Patterns, Processes, and Interactions, Grade 11, University/College Preparation (CGF3M)
By the end of Grade 11, students will:
- Explain the importance of stewardship and sustainability as guiding principles for human use of the physical environment.

Science

Biology, Grade 11, University preparation (SBI3U)
By the end of Grade 11, students will:
B1.1 analyse some of the risks and benefits of human intervention to the biodiversity
of aquatic or terrestrial ecosystems
B2.1 use appropriate terminology related to biodiversity
E2.1 use appropriate terminology related to
animal anatomy
F1.1 evaluate, on the basis of research, the importance of plants to the growth and development of Canadian society
F2.1 use appropriate terminology related to plants
F3.4 describe the various factors that affect plant growth

Biology, Grade 11, College Preparation (SBI3C)
By the end of Grade 11, students will:
D1.1 evaluate, on the basis of research, some of the social and ethical implications of genetic research and reproductive technologies
D1.2 evaluate, on the basis of research, some of the effects of genetic research and biotechnology
F1.1 analyse the roles of plants in ecosystems and assess the impact of human activities on the balance of plants within those ecosystems.
F1.2 assess the positive and negative impact of human activities on the natural balance of
plants
F3.1 describe the structure and physiology of the specialized plant tissues involved in conduction, support, storage, and photosynthesis
F3.5 explain the relationship between the structure of a plant and its external environment,
and describe the adaptive attributes that result in natural variation in plant structure

Curriculum Connections

Biology, Grade 12, University Preparation (SBI4U)
By the end of Grade 12, students will:
A2.1 identify and describe a variety of careers related to the fields of science under study (e.g.,
scientific journalist, fisheries and wildlife officer, physician, infectious disease researcher, geneticist) and the education and training necessary for these careers
D1.1 analyse, on the basis of research, some of the social, ethical, and legal implications of biotechnology

Chemistry, Grade 12, University Preparation (SCH4U)
By the end of Grade 12, students will:
D1. analyse technologies and chemical processes that are based on energy changes, and evaluate
them in terms of their efficiency and their effects on the environment.

Chemistry, Grade 12, College Preparation (SCH4C)
By the end of Grade 12, students will:
F1. evaluate the importance of government regulations, scientific analyses, and individual actions in improving air and water quality, and propose a personal plan of action to support these efforts.

Environmental Science, Grade 11, University/College Preparation (SVN3M)
By the end of Grade 11, students will:
F1. assess the impact on society and the environment of the use of various renewable and non-renewable energy sources, and propose a plan to reduce energy consumption;
F2. investigate various methods of conserving energy and improving energy efficiency;
F3. demonstrate an understanding of energy production, consumption, and conservation with respect to a variety of renewable and non-renewable sources.

Environmental Science, Grade 11, Workplace Preparation (SVN3E)
By the end of Grade 11, students will:
B1. analyse selected current environmental problems in terms of the role human activities have played in creating or perpetuating them, and propose possible solutions to one such problem;
B2. investigate air, soil, and water quality in natural and disturbed environments, using appropriate technology;
D1. evaluate initiatives and technological innovations related to energy consumption and
conservation, and assess their impact on personal lifestyles, social attitudes, and the environment;

Curriculum Connections

Science (Biotechnology), Grade 12, University/College Preparation (SNC4M)
By the end of Grade 12, students will:
F1.1 analyse social issues related to an application of biotechnology in the health, agricultural,
or environmental sector
F1.2 analyse, on the basis of research, ethical and legal issues related to an application of biotechnology in the health, agricultural, or environmental sector

Social Studies & Humanities

Nutrition and Health, Grade 12, University Preparation (HFA4U)
Eating Patterns and Trends
By the end of Grade 12, students will:
C1.2 explain how a variety of factors influence the food choices people make
C3.1 analyse new and emerging food- and nutrition-related products and services
C3.2 explain why people adopt various eating patterns

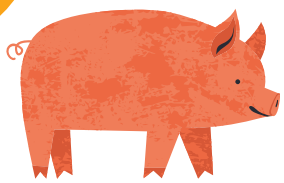
Local and Global Issues: Food Security
By the end of Grade 12, students will:
D1.1 explain the importance of each of the key components of food security
D1.2 explain how social, cultural, economic, and political factors contribute to nutritional inequalities among people within the same community
D1.3 describe the relationships between poverty, food insecurity, poor nutrition, and poor health

Food-Preparation Skills: Food Safety
By the end of Grade 12, students will:
E2.1 outline the causes and symptoms of food- borne illnesses and techniques for preventing these illnesses
E2.2 use appropriate personal hygiene practices to prevent contamination of food

Careers

Designing Your Future, Grade 11, Open (GWL3O)
By the end of Grade 11, students will:
- demonstrate an understanding of the personal-management skills, habits, and characteristics that could contribute to success in their selected postsecondary destinations and independent adult life.

Navigating the Workplace, Grade 12, Open (GLN4O)
By the end of Grade 12, students will:
- demonstrate an understanding of the workplace essential skills necessary for success in life, school, and work;



Day 1 : Caring for Animals

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. How much do you know about Canadian agriculture? Do you know what animals are raised in Ontario/Canada?
2. What do you know about beef cattle and horses?
3. What is your opinion of farmers and farming in general?
4. How would you define animal welfare? How does it relate to agriculture?

Enrichment Resources

- An Exploration of Pig Farming in Ontario
- Animal Health & Welfare Infographics

Daily Activities

AM

1. An Introduction to Animal Farming

PM

1. Pig Breeds
2. Turkeys in Canada

Click to access the Resource Library

NAME:.....

Notes

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Student Handout

What did you learn about animal farming in Ontario/Canada?

What are the different types of turkeys?

How are animals involved in the food cycle?

What does the National Farm Animal Care Council do? Do you identify with their mission?

Day 2 : Grow a Green Thumb

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. What do you know about plants, crops, and biodegradation?
2. What is your knowledge of colonialism? Who is affected by it?
3. Have you heard about the mushroom growing process? What is particular about it?
4. Do you know what kinds of farms there are in Ontario? Have you already visited a farm?

Enrichment Resources

- Growing for a Sustainable Future
- Canadian Agriculture Literacy Month: Plant Science Teacher Resource

Daily Activities

AM

1. Let's Talk Biodegradation!
2. Tulips

PM

1. Mushrooms in Canada
2. Green Colonialism

Click to access the Resource Library

NAME:

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Student Handout

What is green colonialism? How does this phenomenon impact Indigenous peoples?

Summarize the significance of tulips in Canadian history. Did you learn anything interesting?

What does biodegradation mean to you? How are compost and biodegradation similar and/or different? ---

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What is the most interesting thing you learned today?

Day 3 : Earth to Fork

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Think of food products that we cannot grow in Canada (bananas, coffee, oranges, etc.). Why can't we grow these foods here? Where do they come from?
2. What does "global" and "local" mean to you?
3. When you think of the terms food safety or food security, what comes to mind? What is the difference between the two?

Enrichment Resources

- Before the Plate Teacher Guide
- Food Security Infographics

Daily Activities

AM

1. Myth Busting Buying Locally

2. Poutine

PM

1. Food Security

2. Food Safety

Click to access the Resource Library

NAME:

Notes

NAME: .....

Student Handout

What did you learn about the farm to fork process? About eating locally?

What is food security? What are some causes and consequences of food insecurity?

Name a fun fact about poutine you learned today.

What is the most interesting thing you learned today?

Day 4 : Be a Scientist

CAMP AGSCAPE TEACHER'S GUIDE

Teacher Guiding Questions

1. Why are pesticides controversial?
2. What do you know about GMO foods? What is your present opinion of GMO foods?
3. What is your impression of eggs and food safety?
4. What do you know about soil? Why is soil important?

Enrichment Resources

- Soil Science: The Science and Careers of Dirt
- The Pesticide Debate
- Bridge to Business Volume 2: Best Food Facts: Genetically Modified Organisms

Daily Activities

AM

1. Soil & Soil Science

2. Biotechnology & Agricultural Pesticide Use

PM

1. GMO Learning Activity

2. History of GMOs

Click to access the Resource Library

NAME:.....

Notes

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Student Handout

What is your opinion now on pesticide and GMO use in agriculture? What are the pros and cons?

What is the history of GMOs?

How do you think the quality of soil impacts people's ability to grow food around the world?

What are the different types of agricultural pesticides?

Day 5 : Careers

Teacher Guiding Questions

1. What do you know about careers in agriculture?
2. Are you curious about work in the agri-food sector?
3. Have you researched agri-food post-secondary programs?
4. Have you met professionals in the agri-food sector?
5. Are you interested in a career in agriculture?

Enrichment Resources

- Campaigning for Careers in Agri-Food
- Careers Infographic

Daily Activities

AM

1. Unexpected Careers in Agriculture

PM

1. Food Science & Careers

Click to access the Resource Library

NAME:

Notes

NAME: .....

Student Handout

How curious are you about careers in agriculture after today?

What's the most interesting career you learned about? Why?

Did you know there were many career opportunities in agriculture and the food industry?

What's the most interesting thing you learned today?

Conclusion

Thank you for taking the time to read and go over this teacher's guide! We want to hear from you. We invite you to share your experience and give us some feedback by completing the following survey. You can click on the link or use the QR code to access the survey.

Scan to Access Survey!

Want to continue helping your students become food literate?

Our Teacher Ambassador Program is a FREE service offered to Ontario schools, where specially trained educators impart knowledge on various food & agriculture topics and inspire students to become food literate citizens. Teacher Ambassador Lessons are designed for students in grades 4-12 in both English and French and can be requested as many times as you'd like!

Scan to Book a Teacher Ambassador Lesson!!

Additional Resources: Websites for Students & Teachers

Camp AgScape..... https://www.campagscape.ca

AgScape ..... https://www.agscape.ca/

National Animal Care Council..... https://www.nfacc.ca/

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

Farm Food 360 ..... https://www.farmfood360.ca/

Agriculture and Agri-Food Canada..... https://www.agr.gc.ca/

The Real Dirt on Farming..... https://www.realdirtonfarming.ca/

Foodland Ontario..... https://www.ontario.ca/foodland-ontario

OMAFRA..... https://www.omafra.gov.on.ca/

AgCareers ..... https://www.agcareers.com/

AITC ..... https://aitc-canada.ca/en-ca/

ThinkAG ..... https://thinkag.ca/en-ca/

Health Canada ..... www.hc-sc.gc.ca

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