



The Royal Agricultural Winter Fair provides rich learning experiences to enhance learning opportunities that aligns with different subjects and strands of the Ontario Curriculum.

Ontario Curriculum Connections - Grades 9-12

Grade	Course
9	Science: Strand A & B
9	Geography
9-10	Family Studies – Food and Nutrition
9-12	Healthy Active Living Education
9-12	English
10	Science: Strand A & B
10	Civics and Citizenship
10	History
11	Biology
11	Family Studies – Food and Culture
11	Environmental Science
12	Family Studies – Food and Healthy Living
12	Biology
12	Science
12	Living in a Sustainable World: CGR4E

Grade 9

Course: Science

Potential experiential opportunities supporting the overall expectations in Grade 9 students:

	Strand	Overall Expectation	Specific Expectations	At The Royal...
Grade 9 Science	A STEM Skills, Careers, Connections	<p>A2. Applications, Careers, and Connections</p> <p>analyse how scientific concepts and processes can be applied in practical ways to address real-world issues and in various careers, and describe contributions to science from people with diverse lived experiences</p>	<p>A2.2 describe how scientific innovations and emerging technologies, including artificial intelligence systems, impact society and careers</p> <p>A2.3 analyse how the development and application of science is economically, culturally, and socially contextualized, by investigating real-world issues</p> <p>A2.4 apply scientific literacy skills when investigating social and environmental issues that have personal, local, and/or global impacts</p> <p>A2.5 analyse contributions to science by people from various communities, including communities in Canada</p>	<p>On the Growth Hub Stage, listen to the career pathways available in agriculture.</p> <p>Visit A Place To Grow, to explore The Future of Food and how new areas of scientific discovery are being applied to real life problems in agriculture.</p>
	B. Biology, Sustainable Ecosystems, and Climate Change	<p>B1. Relating Science to our Changing World</p> <p>assess impacts of climate change on ecosystem sustainability and on various</p>	<p>B1.3 investigate and explain how sustainable practices used by various communities, including First Nations, Métis, and Inuit communities, reflect an understanding of the importance of the dynamic equilibrium of ecosystems</p>	



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	communities, and describe ways to mitigate these impacts		
	<p>B2. Investigating and Understanding Concepts</p> <p>demonstrate an understanding of the dynamic and interconnected nature of ecosystems, including how matter cycles and energy flows through ecosystems</p>	<p>B2.1 investigate interactions between the biosphere, hydrosphere, lithosphere, and atmosphere, and explain why these interactions are important for ecosystem sustainability</p> <p>B2.2 explain how naturally occurring phenomena, including the cycling of matter and the flow of energy, contribute to the dynamic equilibrium within and between ecosystems</p> <p>B2.3 compare and contrast the processes of cellular respiration and photosynthesis, and explain how their complementary relationship contributes to the dynamic equilibrium of ecosystems</p> <p>B2.4 investigate factors and processes, including biodiversity, air and water quality, soil health, and succession, and explain how they contribute to ecosystem sustainability</p> <p>B2.5 explain the effects of various human activities on the dynamic equilibrium of ecosystems</p> <p>B2.6 identify and use various indicators of climate change to describe the impacts of climate</p>	

		<p>change on local and global ecosystems, and analyse how human activities contribute to climate change</p> <p>B2.7 explain how sustainable practices related to the cycling of matter and the flow of energy can be applied in agricultural innovations</p>	
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Grade 9

Subject: Geography

Potential experiential opportunities supporting the overall expectations in Grade 9 students:

	Strand	Expectation	Big Ideas/Framing Questions	At The Royal...
Grade 9 Geography	B. Interactions in the Physical Environment	B1. The Physical Environment and Human Activities: analyse various interactions between physical processes, phenomena, and events and human activities in Canada (FOCUS ON: Interrelationships; Geographic Perspective)	How do the natural characteristics of Canada influence human activity, and how might human activity influence Canada's natural characteristics?	Talk to real farmers at The Royal – where do they farm the land? Why?
		B2. . Interrelationships between Physical Systems, Processes, and Events: analyse characteristics of various physical processes, phenomena, and events affecting Canada and their interrelationship with global physical systems (FOCUS ON: Patterns and Trends; Interrelationships)	In what ways do Earth's natural processes, phenomena, and events influence Canada's natural characteristics?	At different commodity organizations, ask the experts: What about the landscape where their producers live makes it a good fit for producing that food product?
		B3. The Characteristics of Canada's Natural Environment: describe various characteristics		Throughout the Fair, observe how the Canadian identity is tied to Agriculture. In what ways in this identity dependent on the physical landscape?



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		of the natural environment and the spatial distribution of physical features in Canada, and explain the role of physical processes, phenomena, and events in shaping them (FOCUS ON: Spatial Significance; Patterns and Trends)	In what ways is Canadian identity tied to our natural landscape?	
		B3. demonstrate an understanding of the dynamic nature of ecosystems, particularly in terms of ecological balance and the impact of human activity on the sustainability of terrestrial and aquatic ecosystems.		
	C: Managing Canada's Resources and Industries	C1.The Sustainability of Resources: analyse impacts of resource policy, resource management, and consumer choices on resource sustainability in Canada (FOCUS ON: Interrelationships; Geographic Perspective)	How do we balance our needs and wants with sustainable resource development?	<p>Visit the Beef Education Centre, Sustainability Pavilion, and Pig Education Centre to explore questions of food production and sustainability – from responsible land use to offsetting carbon emissions, to preserving soil quality in Canada's arable landmass.</p> <p>Visit the Ontario Ministry of Agriculture, Farming, and Rural Affairs to talk to experts about legislation on protecting the environment through farming regulations.</p>
		C3. Industries and Economic Development: assess the relative importance of different industrial sectors to the Canadian economy and Canada's place in the global economy, and analyse factors that influence the location of industries in these sectors	What criteria should we set for the extraction and development of Canada's natural resources?	
	E. Liveable Communities	E1.The Sustainability of Human Systems: analyse issues relating to the sustainability of human systems in Canada (FOCUS ON: Interrelationships; Geographic	People have a role in determining the sustainability of human systems,	At the Royal: Ask the experts questions about the sustainability of the Food system, visit the Sustainability Pavilion to

		Perspective)	such as food production and transportation, within Canadian communities.	learn about ongoing initiatives.
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Grade 9-10

Course: Social Sciences and Humanities

Family Studies – Food and Nutrition

Potential experiential opportunities supporting the overall expectations in Grade 9- 10 students:

Grade 9-10 Family Studies Food & Nutrition	Research and Inquiry Skills	A1. Exploring
		A2. Investigating
		A3. Processing Information
		A4. Communicating and Reflecting.
	Nutrition and Health	B1. Canada's Food Guide: demonstrate an understanding of the nutritional and health recommendations in Canada's Food Guide.
		B2. Eating Patterns: demonstrate an understanding of eating patterns that contribute to optimal physical health.
	Food Choices	C1. Food Needs.
		C2. Influences on Food Choices.
	Local and Global Foods	D1. Availability of Food.
		D2. Food and Environmental Responsibility.
		D3. Food Security
	Food Preparation Skills	E1. Kitchen Safety.
		E2. Food Safety.
		E3. Food Preparation.
		E4. Kitchen Literacy and Numeracy.

Grade 9-12

Course: Healthy Active Living Education

Potential experiential opportunities supporting the overall expectations in Grade 9-12 students:

Grade 9-12 Healthy Active Living	Healthy Living/Healthy Eating	C1. Understanding Health Concepts
		C2. Making Healthy Choices
		C3. Making Connections for Healthy Living

Grade 9-12

Course: English

Potential experiential opportunities supporting the overall expectations in Grade 9-12 students:

Grade 9-12 English	Oral Communication	1. Listening to Understand.
		2. Speaking to Communicate.
		3. Reflecting on Skills and Strategies.
	Reading	1. Reading for Meaning.
		2. Understanding Form and Style.
		3. Reading With Fluency
	Media Studies	1. Understanding Media Texts.
		2. Understanding Media Forms, Conventions, and Techniques.
		3. Creating Media Texts.
		4. Reflecting on Skills and Strategies.

Grade 10

Course: Science

Potential experiential opportunities supporting the overall expectations in Grade 10 students:

	Strand	Expectations	At The Royal...
Grade 10	A. Career Exploration	A2. identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields.	

	B. Biology	B1. evaluate the importance of medical and other technological developments related to systems biology, and analyse their societal and ethical implications.	
		B2. investigate cell division, cell specialization, organs, and systems in animals and plants, using research and inquiry skills, including various laboratory techniques.	
		B3. demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants.	

Grade 10

Course: Civics and Citizenship

Potential experiential opportunities supporting the overall expectations in Grade 10 students:

	Strand	Expectation	At The Royal...
Grade 10 Civics	Strand C. Civic Engagement, Service, and Action	C1.4 describe the importance of taking pride in one's country, and analyse the significance of commemorating and recognizing important events, issues, people, and/or symbols in Canada, as well as the methods by which they are recognized	Consider how The Royal is engaging in its 100 th year, 'a Century of Champions' in Canadian agriculture. How is this part of a Canadian national identity? What symbols do you see? What methods of celebration?

Grade 10

Course: Civics and Citizenship

Potential experiential opportunities supporting the overall expectations in Grade 10 students:

	Strand	Expectation	At The Royal...
Grade 10	B: Canada, 1914-1929	B3. Identity, Citizenship, and Heritage: explain how various individuals, organizations, and specific social changes between 1914 and 1929 contributed to the development	Visit the exhibit that explores 100 years of the Royal Winter Fair. Who was The Fair designed for? Who is missing?

	of identities, citizenship, and heritage in Canada (FOCUS ON: Continuity and Change; Historical Perspective)	In what ways is The Royal a reflection of the ways in which the lives of a particular group and community shaped Canada during the period of the 1920s?
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Grade 11

Course: Biology

Potential experiential opportunities supporting the overall expectations in Grade 11 students:

Grade 11	Career Exploration	A2. identify and describe a variety of careers related to the fields of science under study, and identify scientists, including Canadians, who have made contributions to those fields.
	Diversity of Living Things	B1. analyze the effects of various human activities on the diversity of living things.
		B2. investigate, through laboratory and/or field activities or through simulations, the principles of scientific classification, using appropriate sampling and classification techniques.
		B3. demonstrate an understanding.
	Genetic Processes	D1. evaluate the importance of some recent contributions to our knowledge of genetic processes, and analyse social and ethical implications of genetic and genomic research
		D2. investigate genetic processes, including those that occur during meiosis, and analyse data to solve basic genetics problems involving monohybrid and dihybrid crosses;
		D3. demonstrate an understanding of concepts, processes, and technologies related to the transmission of hereditary characteristics.
	Animals: Structure and Functions	E3. demonstrate an understanding of animal anatomy and physiology, and describe disorders of the respiratory, circulatory, and digestive systems.
	Plants: Anatomy, Growth and Function	F1. evaluate the importance of sustainable use of plants to Canadian society and other cultures;
		F2. investigate the structures and functions of plant tissues, and factors affecting plant growth.
		F3. demonstrate an understanding of the diversity of vascular

		plants, including their structures, internal transport systems, and their role in maintaining biodiversity.
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Grade 11

Subject: Social Sciences and Humanities

Course: Family Studies – Food and Culture

Potential experiential opportunities supporting the overall expectations in Grade 11 students:

Grade 11	Research and Inquiry Skills	A1. Exploring.
		A2. Investigating.
		A3. Processing Information.
		A4. Communicating and Reflecting.
	Culture, Foods and Food Practices	B1. Food Choices
		B2. Food Guidelines.
	Foods and Flavours	C1. Food Availability
		C2. Sources of Food
	Food Preparation Skills	E1. Kitchen Safety.
		E2. Food Safety.
		E3. Food Preparation.
		E4. Kitchen Literacy and Numeracy.

Grade 11

Course: Environmental Science

Potential experiential opportunities supporting the overall expectations in Grade 11 students:

Grade 11	Career Exploration	A2. identify and describe careers related to the fields of science under study, and describe contributions of scientists, including Canadians, to those fields
	Sustainable Agriculture	D1. evaluate the impact of agricultural and forestry practices on human health, the economy, and the environment.
		D2. investigate conditions necessary for plant growth, including the soil components most suitable for various species, and various environmentally sustainable methods that can be used to promote growth.
		D3. demonstrate an understanding of conditions required for plant growth and of a variety of environmentally sustainable practices that can be used to promote growth.

Grade 12

Subject: Social Sciences and Humanities

Course: Family Studies – Food and Healthy Living

Potential experiential opportunities supporting the overall expectations in Grade 12 students:

Grade 12	Research and Inquiry Skills	A1. Exploring.
		A2. Investigating.
		A3. Processing Information.
		A4. Communicating and Reflecting.
	Nutrition and Health	B1. Nutrients
		B2. Food Guides
		B3. Energy Balance
		B4. Nutritional Status
	Eating Patterns and Trends	C1. Nutrition throughout the Lifespan
		C2. Nutrition and Disease
		C3. Trends and Patterns in Food and Nutrition
	Local and Global Issues	D1. Food Security.
		D2. Food Production and Supply.
		D3. Food Production and the Environment
	Food Preparation Skills	E1. Kitchen Safety.
		E2. Food Safety.
		E3. Food Preparation.

Grade 12

Course: Biology

Potential experiential opportunities supporting the overall expectations in Grade 12 students:

Grade 12	Career Exploration	A2. identify and describe careers related to the fields of science under study, and describe contributions of scientists, including Canadians, to those fields
	Molecular Genetics	D3. demonstrate an understanding of concepts related to molecular genetics, and how genetic modification is applied in industry and agriculture.
	Population Dynamics	F1. analyze the relationships between population growth, personal consumption, technological development, and our ecological footprint, and assess the effectiveness of some Canadian initiatives intended to assist expanding populations;

Grade 12

Course: Science

Potential experiential opportunities supporting the overall expectations in Grade 12 students:

Grade 12	Career Exploration	A2. identify and describe careers related to the fields of science under study, and describe contributions of scientists, including Canadians, to those fields
	Nutritional Science	D1. assess how personal and societal factors affect eating behaviors, and evaluate the social and economic impact of the use of non-nutrient food additives.
		D2. investigate chemical components of and energy in food, and the processes by which food is digested.
		D3. demonstrate an understanding of chemical components of and energy in food, and the processes by which food is digested.

Grade 12

Course: Living in a Sustainable World

Potential experiential opportunities supporting the overall expectations in Grade 12 students:

	Strand	Specific Expectations	At The Royal...
	B. Species and Spaces	<p>B2.Human Impacts on Ecosystems: explain how human settlement and activities alter ecosystems</p> <p>B3.Ecosystem Characteristics: describe the characteristics of different types of ecosystems, and explain their relationships with natural processes in the Earth system</p>	Investigate how farming impacts Canadian ecosystems, and what different organizations and groups are doing to help.
	D. Ecosystems and Human Activity	D3.Ecological Processes: explain how various ecological and biological processes sustain life on Earth	How is everything you see at The Royal about your local food system in Ontario made possible by the Earth's natural systems?
	E. Community Action	E1. Working Together: assess the contribution of various individual, workplace, and community initiatives to reducing the human impact on the natural environment	Visit the Sustainability Pavilion and ask the experts at the Education Centres throughout to find out how agricultural production impacts the environment, and what is being done on an organizational and governmental level.
		<p>E2. Ecological Footprints: assess impacts of human behaviour on the natural environment</p> <p>E3. Community Infrastructure: assess environmental impacts of various types of infrastructure, systems, and services at the community and regional levels, and assess ways of reducing these impacts</p>	

Grade 12

Course: The Environment and Resource Management

Potential experiential opportunities supporting the overall expectations in Grade 12 students:

	Strand	Specific Expectations	At The Royal...
	E. Community in Action	E2.Community Land Use and Infrastructure: assess impacts of community land use and infrastructure on humans and the	Investigate the environmental impacts of the local food system by talking to the experts of each of the



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	natural environment, and assess ways of reducing these impacts	education centres.
	E3. Ecological Footprints: analyse impacts of various human behaviours on the natural environment, and assess the role of behaviour, ethics, and technology in reducing these impacts (FOCUS ON: Patterns and Trends; Geographic Perspective)	At the end of the day, everyone needs food – reflect on how we should balance this need, and the current system to meet it, with questions of sustainable community development.