

Ontario Geography Curriculum



Ontario Geography - Grade 7

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	Students will:			
Geography: Patterns in Physical Geography	Recognize pattern as an important concept in geography		Rainforests of the World screens	Deserts of the World screens, Climatic Influences
	Identify and explain how land-forms are used to delineate regions		Tropical Types screens	Deserts of the World screens
	Identify and describe world land-form patterns		Rainforests of the World screens	Deserts of the World screens
	Identify and describe world climate patterns			Climate Quiz (world patterns)
	Demonstrate an understanding that climate patterns result from the interaction of several factors: latitude, altitude, global wind systems, air masses, proximity to large bodies of water, ocean currents		Climate, Water Cycle	What is a Desert?, Aridity Types, What Causes Aridity Quiz, Climatic Influences: High Pressure zones, Rain Shadows, Cold Ocean Currents, Continental Interiors
	Demonstrate an understanding that natural vegetation patterns result from the interaction of several factors: temperature, precipitation, soil types, competition for available nutrients		Climate, Types section	What is a Desert?, Aridity Types, What Causes Aridity Quiz, Climate screens, Deserts of the World screens
	Describe the correlation between physical patterns and types of crops (e.g., land-forms, plains / grains, climate: tropics / bananas)		Global Benefits, Rainforest Riches	Impact on the Desert – Agriculture sections
	Identify patterns in physical geography, using thematic maps.		See Rainforests of the World	See Deserts of the World

CANADIAN & WORLD STUDIES: Grade 9 Academic

Canadian Geography is not the main focus of our fieldtrips, although the Digital Fieldtrip to the Wetlands does visit a Canadian bog, and Canadian temperate rainforests are explored in the Digital Fieldtrip to the Rainforest. Rainforests and Deserts from around the world are explored on those respective CDs.

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	Students will:			
Geography of Canada: Space and Systems	demonstrate an understanding of the characteristics of natural systems (e.g., climate, landforms, soils, natural vegetation, wildlife)	all three field trips include a study of landforms, soils, natural vegetation, and wildlife. The Digital Field Trip to the Rainforest and the Digital Field Trip to the Desert include a study on climate		
	demonstrate an understanding of how natural and human systems interact within ecozones	All three field trips include a study of human impact on the environment.		
Geography of Canada: Human-Environment Interactions	demonstrate an understanding of how human activities (e.g., agricultural and urban development, waste management, parks development, forest harvesting, land reclamation) affect the environment	All three field trips include a study of human impact on the environment.		

CANADIAN & WORLD STUDIES: Grade 9 Applied

Canadian Geography is not the main focus of our fieldtrips, although the Digital Fieldtrip to the Wetlands does visit a Canadian bog, and Canadian temperate rainforests are explored in the Digital Fieldtrip to the Rainforest. Rainforests and Deserts from around the world are explored on those respective CDs.

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	Students will:			
Geography of Canada: Space and Systems	demonstrate an understanding of the characteristics of natural systems (e.g., climate, landforms, soils, natural vegetation, wildlife)	all three field trips include a study of landforms, soils, natural vegetation, and wildlife. The Digital Field Trip to the Rainforest and the Digital Field Trip to the Desert include a study on climate.		
Geography of Canada: Human-Environment Interactions	demonstrate an understanding of how human activities (e.g., agricultural and urban development, waste management, parks development, forest harvesting, land reclamation) affect the environment	All three field trips include a study of human impact on the environment.		

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CANADIAN & WORLD STUDIES: Grade 11 University / College Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Americas: Geographic Patterns & Issues (CGD3M)				
Geographic Foundations: Space and Systems	compare the natural characteristics of the equatorial, midlatitude, & polar regions of the Americas	use field trip to Ontario Bog as example	Types screens: especially Tropical vs. Temperate and Rainforests of the World	Deserts of the World: North American Deserts, South American Deserts, Polar Deserts
	compare the major characteristics of an ecosystem in the midlatitudes with those of a polar ecosystem and an equatorial ecosystem	use field trip to Ontario Bog as example	Types screens: especially Tropical vs. Temperate and Rainforests of the World	Deserts of the World: North American Deserts, South American Deserts, Polar Deserts
Human-Environment Interactions	describe the long-term local and global impacts of the destruction of major forest regions (e.g., boreal, tropical rain forest)		Human Impact	
Methods of Geography Inquiry	use geographic technologies and resources effectively (e.g., remote sensing data, geographic information systems, Internet resources) to gather, process, and synthesize information related to geographic issues	use entire CD to gather information	use entire CD to gather information	use entire CD to gather information
	evaluate the accuracy & reliability of information obtained from various sources		Statistics	
Physical Geography: Patterns, Processes, and Interactions (CGF3M)				
Geographic Foundations: Space and Systems	demonstrate an understanding of the principal features of the earth's major components: the lithosphere, atmosphere, hydrosphere, and biosphere	Bog Study section: Formation, Food Web; Wetlands Mechanisms section	Mechanisms section, Study: Web Game, Endangered: Climate	Mechanisms: Climatic Influences section, Landscape Formation section, Water Availability, Build-a-Desert Game
	explain the physical processes that create landforms, climate, soils, and vegetation	Bog Formation, Groundwater, Flooding, Wetland Types section	Mechanisms section, Endangered: Climate, Types section	Desert Types: What is a Desert?, Aridity Types; Mechanisms sections: Climatic Influences, Water Availability, Landscape Formation
	identify the interconnections between natural systems (e.g., natural vegetation, climate, wildlife) within selected ecosystems	Web Game, Plant and Animal Adaptations	Web Game, Niches, Cryptic Coloration	Build-a-Desert Game, Plant and Animal Adaptations

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CANADIAN & WORLD STUDIES: Grade 11 University / College Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
CANADIAN & WORLD STUDIES: Physical Geography: Patterns, Processes, and Interactions (CGF3M)				
Geographic Foundations: Space and Systems	differentiate among the major rock types (igneous, sedimentary, metamorphic) and explain their origins			Rocks and Minerals, refer to Landscape Formation Quiz
	describe the flow of matter and energy through ecosystems (e.g., the hydrologic cycle, the carbon cycle) and explain the relationship of these flows to landforms, climate, soils, and vegetation	Nutrient Cycles: Carbon, Water, Nitrogen, Phosphorus, Web Energy, Web Game, Food Chains	Web Game, Water Cycle	Build-a-Desert Game
	explain how climatic controls act upon the elements of the atmosphere to produce the climatic zones of the earth		Endangered: Climate; Mechanisms: Water Cycle	Climatic Influences screens, Aridity Types
	explain the roles of water, ice, wind, and biological processes in shaping physical features	Bog Formation		Landscape Formation section: Weathering, Water screens, Wind screens
	explain the effects of natural variations in climate on the structure and composition of soils of selected regions	Wetland Types screens, Bog Acidity	Soils & Decomposition, Succession, Climate	Desert Types, What is a Desert?, Aridity Types, Weathering
	analyse relationships between present characteristics of local landforms and the processes that shaped them	Bog Formation		Landscape Formation section: Weathering, Water screens, Wind screens, see Landscape Formation Quiz
Human-Environment Interactions	explain how the earth provides both a habitat for life and a resource for society	Endangered Wetlands	Endangered section: Human Impact, Impact screens, Rainforest Riches, Biodiversity screens	Human Impact: Impact on the Desert, Desertification
	evaluate the impacts of natural systems on people and their activities		Rainforests of the World	Deserts of the World, Human Impact, Impact screens
	evaluate the impact of human life on natural systems	Endangered Wetlands, Conservation, Habitat, Pollution, Migration	Endangered section: Human Impact, Impact screens, Rainforests of the World	Human Impact: Impact on the Desert, Desertification, Deserts of the World

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CANADIAN & WORLD STUDIES: Grade 11 University / College Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
CANADIAN & WORLD STUDIES: Physical Geography: Patterns, Processes, and Interactions (CGF3M)				
Human-Environment Interactions	demonstrate an understanding of the importance of stewardship and sustainability as guiding principles for human use of the physical environment	Endangered Wetlands section	Endangered section:	Human Impact section
	demonstrate an understanding of the effects of human activities (e.g., urban expansion, resource exploitation) on various aspects of the environment	Endangered Wetlands, Conservation, Habitat, Pollution, Migration	Endangered section: Human Impact, Impact screens, Rainforests of the World	Human Impact: Impact on the Desert, Desertification; Deserts of the World
	describe the importance of sustainable practices in resource-based industries (e.g., forestry, mining, fisheries)	Endangered Wetlands, Conservation, Habitat, Pollution, Migration	Endangered section: Human Impact, Impact screens, Rainforests of the World	Human Impact: Impact on the Desert, Desertification; Deserts of the World
	evaluate the impact of deforestation and the burning of fossil fuels on the carbon cycle	Carbon Cycle	Human Impact, Impact screens	
	analyse the impacts of selected human activities on their local environment (e.g., farming and soil erosion, vehicle use and air pollution)	Endangered Wetlands, Conservation, Habitat, Pollution, Migration	Endangered section: Human Impact, Impact screens, Rainforests of the World	Human Impact: Impact on the Desert, Desertification; Deserts of the World
Global Connections	analyse the global distribution of landforms, climate, soils, and vegetation to determine reasons for the observed distribution patterns		Rainforests of the World	Deserts of the World screens, Climatic Influences Quiz
	describe selected ecosystems in different parts of the world and explain the processes that shape them	Wetland Types section	Types screens: Rainforests of the World, Tropical screens, Temperate screens	Deserts of the World screens, Climatic Influences Quiz
	explain the role that oceans and ocean currents play in moderating climate			Climatic Influences Quiz, Cold Ocean Currents, Deserts of the World
	demonstrate an understanding of similarities & differences between different climatic zones & the landscape systems found within them (e.g., polar deserts in Canada's Arctic, and "hot" deserts in other areas of the world)		Climate, Rainforests of the World	Climatic Influences: Climatic Influences Quiz; Deserts of the World

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CANADIAN & WORLD STUDIES: Grade 11 University / College Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
CANADIAN & WORLD STUDIES: Physical Geography: Patterns, Processes, and Interactions (CGF3M)				
Global Connections	analyse patterns of significant ocean currents (e.g., Gulf Stream) and prevailing winds (e.g., trade winds) and their relationships to world vegetation patterns			Cold Ocean Currents, High Pressure Zones, Climatic Influences Quiz, Deserts of the World
	explain the relationships that link global patterns of landforms, soils, climate, & vegetation to each other		Rainforests of the World, Types section	Deserts of the World, Types section
	analyse the effects that human activities in one location can have on the natural environment in another location	Endangered Wetlands: Conservation, Migration, Pollution	Mechanisms: Water Cycle, Endangered: Climate, Human Impact screens	Human Impact: Impact on the Desert, Desertification
	analyse the impacts of urbanization & industrialization on hydrology	Endangered Wetlands screens	Mechanisms: Water Cycle, Endangered: Climate, Human Impact screens	Human Impact: Impact on the Desert, Desertification, Water Availability
Understanding and Managing Change	explain how human uses of the earth, including uses involving technology, cause change in natural systems	Endangered Wetlands section	Endangered section	Human Impact section
	demonstrate an understanding that the world's surface is dynamic, in that it is constantly being reshaped (e.g. mountain building, erosion)	Bog Formation		Landscape Formation section
	demonstrate an understanding of how soils are the result of long-term processes (e.g., erosion & chemical & mechanical weathering) acting upon parent material		Soils and Decomposition	Weathering
	analyse the long-term effects of human use of a distinctive ecological zone	Endangered Wetlands section	Endangered section	Human Impact section

CANADIAN & WORLD STUDIES: Grade 12 University Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
Canadian and World Issues: A Geographic Analysis (CGW4U)				
Human-Environment Interactions	analyse geographic issues that arise from the impact of human activities on the environment in different regions of the world	Endangered Wetlands	Rainforests of the World, Endangered: Human Impact, Impact screens	Human Impact: Impact on the Desert, Desertification
	demonstrate an understanding of how human-induced changes in natural systems can diminish their capacity for supporting human activity	Endangered Wetlands: Conservation, Pollution	Endangered: Human Impact, Impact screens, Succession	Human Impact: Impact on the Desert, Desertification
	analyse the impact of past and current trends in agriculture		Endangered: Human Impact, Impact screens (agriculture)	Human Impact: Impact on the Desert (agriculture)
	analyse the impact of urbanization and urban growth (e.g., destruction of wildlife habitat, traffic congestion, land use conflicts) on natural and human systems	Endangered Wetlands: Conservation, Pollution	Endangered: Human Impact, Impact screens	Human Impact: Impact on the Desert, Desertification
	evaluate the economic, social, and ecological impact of current methods for raising or harvesting a selected resource (e.g., clear-cutting of forests, development of wildlife habitat areas, monoculture)	Endangered Wetlands: Conservation, Pollution	Endangered: Human Impact, Impact screens	Human Impact: Impact on the Desert, Desertification
World Geography: Human Patterns and Interactions (CGU4U)				
Geographic Foundations: Space and Systems	explain why groups of people in similar environments (e.g., deserts) may have different ways of life		Rainforests of the World	Deserts of the World screens, Impact on the Desert
Human-Environment Interactions	explain how humans have modified the natural environment	Endangered Wetlands: Conservation, Pollution	Endangered: Human Impact, Impact screens	Human Impact: Impact on the Desert, Desertification
	identify examples from each continent of positive and negative effects of human activities on the natural environment		Rainforests of the World	Deserts of the World screens
	analyse the advantages and disadvantages of intensive human use of selected physical features	Endangered Wetlands: Conservation, Pollution	Endangered: Human Impact, Impact screens, Water Cycle, Climate	Human Impact: Impact on the Desert, Desertification

CANADIAN & WORLD STUDIES: Grade 12 University / College Preparation

	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Environment and Resource Management: (CGR4M)				
Geographic Foundations: Space and Systems	analyse and explain relationships between the earth’s major components: the lithosphere, atmosphere, hydrosphere, and biosphere	Nutrient Cycles: Carbon, Water, Nitrogen Phosphorus; Groundwater	Soils & Decomposition, Water Cycle, Climate	Landscape Formation: Rocks & Minerals, Weathering, Wind screens, Water screens, Climatic Influences screens
	explain key ecological processes and their significance for ecosystem health	Wetlands Mechanisms screens, Food Web, Web Energy, Web Game	Mechanisms screens, Endangered: Climate, Web Game	Water Availability, Weathering, Climatic Influences
	analyse the spatial distribution of global biomes and explain the natural conditions that shape these patterns		Rainforests of the World	Deserts of the World screens
	demonstrate an understanding of the variety, complexity, and evolutionary characteristics (e.g., primary & secondary succession) of selected ecosystems	Bog Study, Bog Formation, Wetland Types screens	Succession, Tree Fall Gaps, Soils & Decomposition, Forest Strata, Water Cycle, Productivity, Types section	Deserts of the World, What is a Desert?, Aridity Types, What Causes Aridity?
	explain the role of micro-organisms in maintaining soil fertility	Decomposers	Soils & Decomposition, Productivity	Weathering
	demonstrate an understanding of the process of bioaccumulation of chemicals within the food chain	Food Web, Food Chains, Web Energy, Producers, Consumers, Decomposers		

CANADIAN & WORLD STUDIES: Grade 12 University Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Environment and Resource Management (CGR4M)				
Geographic Foundations: Space and Systems	demonstrate an understanding of the factors that affect the survival of a species (e.g., genetic characteristics, availability of habitat, population size)	Organism screens, Plant and Animal Adaptations	Organism screens	Organism screens, Plant and Animal Adaptations screens
	analyse selected relationships between the earth's diverse natural systems (e.g., climate, soils, vegetation, wildlife)	Wetland Types screens	Rainforest Types screens	Aridity Types, World Desert screens
	explain the flow of matter and energy through ecosystems (e.g., nutrient cycling: carbon, nitrogen, and water cycles; energy flow)	Nutrient Cycles: Carbon, Water, Nitrogen Phosphorus; Groundwater	Mechanisms: Water Cycle; Endangered: Climate	
	explain interactions between producers, consumers, and decomposers within a selected ecosystem	Food Web, Food Chains, Web Energy, Producers, Consumers, Decomposers	Food Web Game	Build-a-Desert Game
	analyse the factors that contribute to the fragility and/or resilience of selected ecosystems	Endangered Wetlands screens	Soils & Decomposition, Succession, Climate, Impact screens	Climatic Influences screens, Impact on the Desert
	explain the combination of biotic and abiotic factors and processes that produce a selected soil, wetland, or forest	Wetlands Mechanisms screens	Rainforest Mechanisms screens	Desert Mechanisms screens
Human-Environment Interactions	demonstrate an understanding of how humans are an integral part of an ecological system and of how human activity has short- and long-term effects on the natural environment	Endangered Wetlands screens	Human Impact, Impact screens	Human Impact, Impact on the Desert, Desertification
	analyse ways in which selected human activities alter the natural environment	Endangered Wetlands screens	Human Impact, Impact screens	Human Impact, Impact on the Desert, Desertification
	analyse the ways in which various groups or individuals depend on a selected resource & evaluate the environmental, economic, & social implications of their dependence on the resource	Endangered Wetlands screens	Human Impact, Impact screens	Human Impact, Impact on the Desert screens, Desertification

CANADIAN & WORLD STUDIES: Grade 12 University Preparation cont'd

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Environment and Resource Management (CGR4M)				
Global Connections	analyse environmental and resource management issues on a global scale	Endangered Wetlands, Conservation, Migration, Pollution	Human Impact, Impact screens	Human Impact, Impact on the Desert screens, Desertification
	analyse the relationships between global population growth, accelerating consumption of resources, and sustainability of ecosystems on a global scale	Endangered Wetlands	Human Impact, Impact screens	Human Impact, Impact on the Desert screens, Desertification
	analyse the relationships between global resource consumption and environmental degradation	Endangered Wetlands	Human Impact, Impact screens	Human Impact, Impact on the Desert screens, Desertification
Under-standing and Managing Change	explain ways in which human activity in one place may cause changes to the environment in another place	Endangered Wetlands	Human Impact, Impact screens	Human Impact, Impact on the Desert screens, Desertification

CANADIAN & WORLD STUDIES: Grade 12 Workplace Preparation

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Environment and Resource Management (CGR4E)				
Geographic Foundations: Space and Systems	explain relationships between the earth's major components: the lithosphere, atmosphere, hydrosphere, and biosphere	Nutrient Cycles: Carbon, Water, Nitrogen Phosphorus; Groundwater	Soils & Decomposition, Water Cycle, Climate	Landscape Formation: Rocks & Minerals, Weathering, Wind screens, Water screens, Climatic Influences screens
	explain key ecological processes and their significance for ecosystem health	Wetlands Mechanisms	Rainforest Mechanisms	Desert Mechanisms
	analyse the spatial distribution of global biomes and explain the natural conditions that shape these patterns		Rainforests of the World	Deserts of the World
	demonstrate an understanding of the role played by the atmosphere, the lithosphere, the hydrosphere, and the sun in maintaining life on earth	Nutrient Cycles: Carbon, Water, Nitrogen Phosphorus; Groundwater	Soils & Decomposition, Water Cycle, Climate	Landscape Formation: Rocks & Minerals, Weathering, Wind screens, Water screens, Climatic Influences screens
	explain the role played by plants in the growth of other living organisms	Photosynthesis, Web Energy, Web Game	Dependency Types, Web Game	Build-a-Desert
	demonstrate an understanding of the roleplayed by producers, consumers, and decomposers in relationships between organisms	Food Web, Food Chains, Web Energy, Consumers, Producers, Decomposers, Web Game	Web Game	Build-a-Desert Game
	describe a generalized food web	Web Game	Web Game	Build-a-Desert
	predict the results when a species is removed from a food web	Web Game	Web Game	Build-a-Desert
	explain how & why some ecosystems are more fragile than others	Endangered Wetlands, Conservation, Migration, Pollution	Human Impact, Impact screens, Soils & Decomposition, Climate	Human Impact, Impact on the Desert screens, Desertification
	predict the effects of the destruction of selected natural habitats on biodiversity		Biodiversity, Biodiversity screens	

CANADIAN & WORLD STUDIES: Grade 12 Workplace Preparation cont'd

Reference	Expectations	The Wetlands	The Rainforest	The Desert
	By the end of this course, students will:			
The Environment and Resource Management (CGR4E)				
Human-Environment Interactions	demonstrate an understanding of how humans depend on nature & are an integral part of ecosystems	Groundwater, Endangered Wetlands: Conservation, Pollution	Human Impact, Impact screens,	Human Impact, Impact on the Desert
	explain how human use of the earth & its resources has positive & negative impacts on natural and human systems	Groundwater, Endangered Wetlands: Conservation, Pollution	Human Impact, Impact screens,	Human Impact, Impact on the Desert
	explain the ways in which people & other living organisms are dependent on the natural environment	Groundwater, Endangered Wetlands: Conservation, Pollution	Human Impact, Impact screens,	Human Impact, Impact on the Desert
	explain how selected human activities alter the natural environment (e.g., effect of depletion of forests on oxygen production)	Groundwater, Endangered Wetlands: Conservation, Pollution	Human Impact, Impact screens,	Human Impact, Impact on the Desert
	explain the impact on the natural environment of selected methods of extracting and transporting resources	Groundwater, Endangered Wetlands: Conservation, Pollution	Human Impact, Impact screens,	Human Impact, Impact on the Desert
Global Connections	identify ways in which people in a traditional culture interact with the natural environment		Human Impact, Impact screens, Rainforests of the World	Human Impact, Impact on the Desert, Deserts of the 'World
	explain the relationship between increasing rates of consumption of the earth's resources and environmental degradation	Endangered Wetlands	Human Impact, Impact screens,	Human Impact, Impact on the Desert