



## DEVELOPMENT & PEACE Student Activity Guide (Fall 2014)

### Ontario Secondary Curriculum Connections

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## GRADE 9

### FOOD AND NUTRITION (HFN10/HFN20)

#### STRAND: FOOD CHOICES

**C2.1** identify different factors that influence people's food choices (e.g., nutritional, cultural, emotional, environmental, religious, social, ethical, economic)

**Teacher prompts:** "Why do some people choose to be vegetarian?" "How can you modify your food choices to reduce your impact on the environment?" "Why might some people choose to eat organic foods while others choose to eat local foods as a way of reducing their impact on the environment?"

**C3.1** describe how various media (e.g., flyers, magazines, billboards, radio, television, the Internet) are used to promote the consumption of different types of foods (e.g., fresh produce, health foods, fast foods, energy drinks, restaurant meals)

#### STRAND: LOCAL AND GLOBAL FOOD

**D1.3** explain why certain foods are imported from other countries (e.g., tropical fruits, nuts, ocean fish, coffee, tea, chocolate)

**Teacher prompts:** "How much do our eating patterns depend on imported foods?" "Why are some foods imported to Ontario (e.g., garlic from China or apples from New Zealand) when they can be grown locally?"

**D1.5** plan and prepare a food item or items and identify the source of most of the ingredients

**D2.1** assess their personal and family food-purchasing and food-preparation practices to determine their effect on the environment (eg. local foods require less fossil fuel for transportation; homemade foods require less packaging)

**D2.2** assess programs and practices that reduce the impact of food production and consumption on the environment (e.g., recycling programs, organic farming, food co-ops, community gardens)

**Teacher prompt:** "What food-related programs could your school and community support to help the environment?"

**D3.1** identify the components of food security (e.g., availability, accessibility, adequacy, acceptability, sustainability)

### ISSUES IN CANADIAN GEOGRAPHY (CGC1D – Academic)

#### STRAND: MANAGING CANADA'S RESOURCES AND INDUSTRIES

**C1.4** analyse the roles and responsibilities of individuals in promoting the sustainable use of resources (e.g., managing one's own ecological footprint, making responsible consumer choices, recycling, advocating sustainable resource-use policies and practices)

**Sample questions:** “What does your ecological footprint indicate about your personal impact on the sustainability of Canada’s natural resources?” “How can we balance our individual needs and wants against the need for sustainable resource use?” “How might a company’s environmental record influence a consumer’s decision about buying their products?”

### **STRAND: LIVEABLE COMMUNITIES**

**E1.1** analyse the effects of food production practices, distribution methods, and consumer choices on the sustainability of Canada’s food system

**Sample questions:** “Do present food production practices support the sustainability of the food system?” “What role does the availability of local food play in making communities more sustainable?” “What options are available to consumers if they wish to make more sustainable food choices?”

**E1.5** propose courses of action that would make a community more sustainable (e.g., improving community/neighbourhood amenities, establishing local markets)

**Sample questions:** “What criteria could be used to evaluate a community’s progress in achieving environmental sustainability? What economic criteria would a plan to improve environmental sustainability have to meet in order to be practical to adopt and viable in the long term?” “Does your course of action support the cultural needs of the people living in the community?”

## **ISSUES IN CANADIAN GEOGRAPHY (CGC1P – Applied)**

### **STRAND: MANAGING CANADA’S RESOURCES AND INDUSTRIES**

**C1.2** assess the impact of different types of food production on resource use and the environment in Canada

**Sample questions:** “Are there certain food products that consume fewer or smaller amounts of natural resources than others or whose production has less of an impact on the environment?” “Are there actions you could take or choices you could make that would reduce the resources needed to produce the food you eat?”

### **STRAND: LIVEABLE COMMUNITIES**

**E1.3** describe ways in which communities can improve their environmental sustainability (e.g., support of local market gardens)

**Sample questions:** “What actions could businesses such as grocery and clothing stores take to be more environmentally sustainable?”

**E1.4** identify actions that individuals can take to live more sustainably, and explain the benefits for their local community

**Sample questions:** “What can you do to make a difference in your community?” “How does the community benefit if you take your own bag when you shop for groceries?” “How does eating local foods, cleaning up a local river, installing a green roof on the school, or using alternative energy support sustainability?”

## **SCIENCE (SNC1D – Academic)**

### **STRAND: BIOLOGY**

**B1.2** evaluate the effectiveness of government initiatives in Canada (federal, provincial, municipal) and/or the efforts of non-governmental organizations, such as Aboriginal communities, environmental groups or student organizations, with respect to an environmental issue that affects the sustainability of terrestrial or aquatic ecosystems (eg Canada-Ontario Environmental Farm Plans)

**Sample question:** How have the actions of organic farming or other groups helped to ensure ecological sustainability? What further action could such groups take?

**B 2.1** use appropriate terminology related to sustainable ecosystems, including, but not limited to: bioaccumulation, biosphere, diversity, ecosystem, equilibrium, sustainability, sustainable use, protection and watershed

**B 2.3** plan and conduct an investigation, involving both inquiry and research, into how a human activity affects soil composition or soil fertility (e.g., changes to soil composition resulting from the use of different compostable materials, organic or inorganic fertilizers, or pesticides), and, extrapolating from the data and information gathered, explain the impact of this activity on the sustainability of terrestrial ecosystems.

### **STRAND: CHEMISTRY**

**C 1.2** assess social, environmental, and economic impacts of the use of common elements or compounds

**Sample question:** How does the widespread use of agricultural chemicals in Canada or elsewhere affect the economy, society, and the environment?

## **SCIENCE (SNC1P – Applied)**

### **STRAND: BIOLOGY**

**B 1.2** assess the effectiveness of a local initiative of personal interest that seeks to ensure the sustainability of a terrestrial or aquatic ecosystem and explain why the initiative is important to the sustainability of the ecosystem.

**Sample question:** How has the implementation of an Environmental Farm Plan (EFP) changed practices at a local farm? What are the benefits of the plan with regard to the sustainability of the ecosystem?

**B 2.1** use appropriate terminology related to sustainable ecosystems and human activity, including but not limited to: biodiversity, biotic, ecosystem, equilibrium, species diversity, sustainability and watershed

**B 2.4** plan and conduct an inquiry into how a factor related to human activity affects a terrestrial or aquatic ecosystem (eg. how changes to soil composition from the use of different compostable materials or organic or inorganic fertilizers affect the type of plants that can be grown) and describe the consequences that this factor has for the sustainability of the ecosystem

**B 3.5** identify some factors related to human activity that have an impact on ecosystems (eg. the use of fertilizers and pesticides; organic and conventional farming) and explain how these factors affect the equilibrium and survival of populations in terrestrial and aquatic ecosystems (eg. fertilizers change to fertility of the soil, affecting what types of plants can grow in it)

# GRADE 10

## FOOD AND NUTRITION (HFN10/HFN20)

### STRAND: FOOD CHOICES

**C2.1** identify different factors that influence people’s food choices (e.g., nutritional, cultural, emotional, environmental, religious, social, ethical, economic)

**Teacher prompts:** “Why do some people choose to be vegetarian?” “How can you modify your food choices to reduce your impact on the environment?” “Why might some people choose to eat organic foods while others choose to eat local foods as a way of reducing their impact on the environment?” “What foods do you eat that are specific to your family, culture, and/or religion?”

**C3.1** describe how various media (e.g., flyers, magazines, billboards, radio, television, the Internet) are used to promote the consumption of different types of foods (e.g., fresh produce, health foods, fast foods, energy drinks, restaurant meals)

### STRAND: LOCAL AND GLOBAL FOOD

**D1.3** explain why certain foods are imported from other countries (e.g., tropical fruits, nuts, ocean fish, coffee, tea, chocolate)

**Teacher prompts:** “How much do our eating patterns depend on imported foods?” “Why are some foods imported to Ontario (e.g., garlic from China or apples from New Zealand) when they can be grown locally?”

**D1.5** plan and prepare a food item or items and identify the source of most of the ingredients

**D 2.1** assess their personal and family food-purchasing and food-preparation practices to determine their effect on the environment (eg. local foods require less fossil fuel for transportation; homemade foods require less packaging)

**D2.2** assess programs and practices that reduce the impact of food production and consumption on the environment (e.g., recycling programs, organic farming, food co-ops, community gardens)

**Teacher prompt:** “What food-related programs could your school and community support to help the environment?”

**D3.1** identify the components of food security (e.g., availability, accessibility, adequacy, acceptability, sustainability)

## CIVICS AND CITIZENSHIP (CHV20)

### STRAND: CIVIC AWARENESS

**B1.1** describe some civic issues of local, national, and/or global significance (e.g., the impact of consumer choices) and compare the perspectives of different groups on selected issues

**Sample questions:** “What are some considerations that affect people’s consumer choices? Why might people who favour free trade and those who favour fair trade differ in the criteria they use when making these choices?”

**B1.3** explain why it is important for people to engage in civic action, and identify various reasons why individuals and groups engage in such action (e.g., to protect their rights or the rights of others, to advocate for change, to protect existing programs, to protect the environment, to achieve greater power or autonomy, out of a sense of social justice or social responsibility, for ethical reasons, to protect their own interests)

**Sample questions:** “What do you think is the most important reason for engaging in civic action? Why?” “What role would civic action have in your ideal community? What would communities be like if people did not engage in such action?”

**B1.4** communicate their own position on some issues of civic importance at the local, national, and/or global level (e.g., food security), explaining how their position is influenced by their beliefs/values

**B2.4** explain, with reference to issues of civic importance, how various groups and institutions (e.g., lobby groups, unions, the media, NGOs, international organizations) can influence government policy

**Sample questions:** “What is a current issue on which groups are lobbying the government? Whose interests do these groups represent?” “How important a role do you think the media play in swaying public opinion on social/political issues? Whose opinions do you think the media reflect?”

## **STRAND: CIVIC ENGAGEMENT AND ACTION**

**C1.1** assess the significance, both in Canada and internationally, of the civic contributions of some individuals and organizations including NGOs and social enterprises (eg. Development & Peace)

**C1.2** describe a variety of ways in which they could make a civic contribution at the local, national, and/or global level (e.g., by raising funds for a charity or a development NGO; by writing to or speaking with their city or band councillor, MPP, or MP to request action on an issue)

**Sample questions:** “When you brainstormed with other students, what are some ways you identified for making a contribution in the community? Which of these appeal to you? Why?” “Are there food banks and/or community gardens in your community? What are some ways in which you could get involved with them?”

**C1.3** explain how various actions can contribute to the common good at the local, national, and/or global level (e.g., engaging in a non-violent protest can heighten awareness of an issue and pressure for change; buying fair trade products helps ensure that producers are fairly compensated for the products they produce; the organized boycotting of products can pressure corporations to change irresponsible practices; donating to a development NGO can help improve the lives of people affected by a natural disaster or enhance health care in developing countries;

**Sample questions:** “What are some significant changes in your local community that have been brought about as a result of citizen action?” “What impact can consumers’ choices have on the natural environment?”

**C3.1** analyse a civic issue of personal interest, including how it is viewed by different groups

**C3.2** propose different courses of action that could be used to address a specific civic issue (e.g., a public awareness campaign, a plan for local action, a campaign to pressure for political action), and assess their merits

**C3.3** develop a plan of action to implement positive change with respect to a specific civic issue, and predict the results of their plan

## **RELIGIOUS EDUCATION (HRE20 – Open)**

### **STRAND: CHRISTIAN MORAL DEVELOPMENT**

-apply the Church’s social justice teachings to both local and global concerns;

-evaluate their lifestyles in terms of its ecological impact

-identify the correlation between their relationship with God and their relationship with others and the earth

-define responsible stewardship

# GRADE 11

## **FOOD AND CULTURE (HFC3M – University/College)**

### **STRAND: CULTURE, FOODS AND FOOD PRACTICES**

**B1.1** explain how various factors (e.g., geography, religion, economics, culture, environment, values) influence personal and societal food choices

**Teacher prompt:** “How have colonization and globalization affected (increased and decreased) the variety and availability of foods?”

**B3.4** compare some food-production and food-acquisition practices in Canada to those in a variety of other countries/cultures (eg. with reference to: cultivation on small family farms vs. large monoculture farms; the role of hunting and fishing; organic farming practices vs. the use of chemicals and genetically modified seeds/plants; growing cash crops vs. growing for local consumption; using surplus produce to barter or trade for different foodstuffs; buying packaged goods and butchered meat in grocery stores vs. fresh produce and live animals in markets; kosher and halal foods)

### **STRAND: FOODS AND FLAVOURS**

**C2.1** describe the origins of various foods eaten in Canada (e.g., potatoes, breads, corn, rice, bananas, tofu, various cheeses, various herbs and spices)

**Teacher prompt:** “How do immigration patterns affect the foods eaten in various regions of Canada?”

**C2.2** identify foods that are regularly eaten as a dominant part of the diet in different parts of the world (e.g., grains/cereals such as rice, wheat, maize/corn, millet, sorghum; roots and tubers such as potatoes, cassava, yams, taro; animal products such as meat, milk, eggs, cheese, fish)

## **FOOD AND CULTURE (HFC3E – Workplace Preparation)**

### **STRAND: CULTURE, FOODS, AND FOOD PRACTICES**

**B1.1** describe how various factors (e.g., geography, religion, economics, culture, environment, values) influence personal food choices

**Teacher prompt:** “How would your food choices be affected if you consumed only food that was grown and/or produced within a 100-kilometre radius of your home?”

**B3.3** describe some food-production and food-acquisition practices in Canada and in a variety of other countries/cultures (eg. cultivation on small family farms, organic farming practices, large monoculture farms, the use of chemicals and genetically modified plants/seeds, the role of hunting and fishing, growing cash crops, growing for local consumption, using surplus produce to trade or barter for different foodstuffs, buying packaged goods and butchered meats in grocery stores, buying fresh produce and live animals in markets, kosher and halal foods)

### **STRAND: FOODS AND FLAVOURS**

**C1.5** identify foods that are naturally found or produced in particular countries and regions of the world (e.g., rice in the Far East, maize/corn in Central America, fish/seafood in Spain and Portugal, olives in Mediterranean countries)

**Teacher prompt:** “Why are animal food products more available in some countries than others?”

**C2.1** identify the origins of various foods eaten in Canada (e.g., potatoes, breads, corn, rice, bananas, tofu, various cheeses, various herbs and spices)

**Teacher prompt:** “In which country did tofu originate? How much of the tofu consumed in Canada is actually produced here?”

## **EQUITY, DIVERSITY AND SOCIAL JUSTICE (HSE3E – Workplace prep)**

### **STRAND: FOUNDATIONS**

**B3.2** demonstrate an understanding of the effects of individual actions that are grounded in environmental awareness (e.g., taking public transportation helps reduce air pollution, shopping at thrift stores helps reduce the depletion of resources used to create products, recycling lessens the amount of garbage going into landfill sites)

**Teacher prompts:** “What are some ways in which you can act in an environmentally responsible manner on a day-to-day basis?” “What impact can these actions have?” “What is your responsibility to people in other countries and to future generations with respect to the environment?”

### **STRAND: EQUITY, SOCIAL JUSTICE, AND CHANGE**

**C1.3** describe various racial, cultural, and national communities’ contributions to and influence on Canadian life and society (e.g., with reference to the arts, sports, business, science, government, non-governmental organizations [NGOs] ie. CCODP - Development & Peace)

**Teacher prompts:** “In what ways have NGOs associated with First Nations contributed to Canadian society?” “What contribution do small businesses owned by ethnocultural minorities make to the economy of Ontario’s cities?”

**C2.4** describe a range of perspectives on specific contemporary equity or social justice issues in Canada (e.g., equity in the workplace, safe schools, accessibility for elderly people and for people with disabilities, treatment of domestic workers and itinerant labourers)

**Teacher prompts:**

**C3.2** describe forms of social activism, including those unique to contemporary society (e.g., netivism, hacktivism, culture jamming; participation in student social justice clubs; use of the arts such as music, theatre, and visual arts to publicize or comment on social justice issues; use of the media to report on social injustice; protests such as hunger strikes, demonstrations, civil disobedience, passive resistance)

**Teacher prompts:** “What forms of activism have you noticed in and around your community?” “How could you use your talents and/or interests to raise awareness about an issue you feel strongly about?” “What do you think are the lasting effects of campaigns that take place through social networking sites? Do you think people ‘click and care’? Why or why not?”

## **THE AMERICAS: GEOGRAPHIC PATTERNS AND ISSUES (CGD3M – Univ/College Prep)**

### **STRAND: GLOBAL CONNECTIONS**

-evaluate the effects on Central and South America of world demand for the regions’ products and resources (e.g., the local impacts of operations of multinational companies);

## **PHYSICAL GEOGRAPHY: PATTERNS, PROCESSES AND INTERACTIONS (CGF3M – Univ/College)**

### **STRAND: HUMAN-ENVIRONMENT INTERACTIONS**

-describe the importance of using sustainable practices in resource-based industries (Eg. forestry, mining, fishing and agriculture)

## **BIOLOGY (SBI3U – University Prep)**

### **STRAND: DIVERSITY OF LIVING THINGS**

**B1.1** analyse some of the risks and benefits of human intervention (e.g., monoculture of livestock or agricultural crops) to the biodiversity of aquatic or terrestrial ecosystems

**B3.5** explain why biodiversity is important to maintaining viable ecosystems (e.g., biodiversity helps increase resilience to stress and resistance to diseases or invading species)

### **STRAND: EVOLUTION**

**C1.1** analyse, on the basis of research, the economic and environmental advantages and disadvantages of an artificial selection technology (eg. livestock and horticultural breeding)

**Sample issue:** Selective breeding of agricultural crops can benefit populations in less-developed countries by producing hardier crops, increasing food supplies, and improving the nutritional content of food. However, opponents of artificial selection technology believe that it affects the natural ability of a species to reproduce, which negatively affects biodiversity.

**Sample questions:** How has selective breeding of specific crops helped to increase the yield of the crop and decrease the need for chemicals in the fields? How has the introduction of genetically engineered species in the horticultural industry affected other species planted in the same area?

### **STRAND: PLANTS**

**F 1.1** evaluate, on the basis of research, the importance of plants to the growth and development of Canadian society (eg. as a source of food)

**Sample issue:** The agricultural sector holds great economic potential as demand increases for products such as biofuels, biochemicals, and biopharmaceuticals. Bioresources could also support our efforts to produce renewable energy, improve health, and minimize environmental impact. However, critics are concerned about the impact of bioresources on the availability of food crops and the price of food.

**Sample questions:** In what ways does the local food movement contribute to community development? What plant species are considered important in sustaining Canada's growth in the agricultural sector?

**F1.2** evaluate, on the basis of research, ways in which different societies or cultures have used plants to sustain human populations while supporting environmental sustainability (e.g., sustainable agricultural practices in developing countries such as crop rotation and seed saving; traditional Aboriginal corn production practices)

## **BIOLOGY (SBI3C – College prep)**

### **STRAND: GENETICS**

**D 1.2** evaluate, on the basis of research, some of the effects of genetic research and biotechnology (eg. genetically modified organisms [GMOs]) on the environment

**Sample questions:** What are the risks of growing genetically modified crops near fields where traditional crops are growing? Why have some countries banned genetically modified food crops?

### **STRAND: PLANTS IN THE NATURAL ENVIRONMENT**

**F1.1** analyse, on the basis of research, and report on ways in which plants can be used to sustain ecosystems

**Sample question:** How have traditional Aboriginal seed maintenance and distribution practices helped sustain ecosystems in Aboriginal communities?

**F1.2** assess the positive and negative impact of human activities on the natural balance of plants (e.g., crop rotation, the use of fertilizers and herbicides, the introduction of new species)

**Sample question:** In what ways does monoculture affect the natural balance of plants and the ecosystems they help to sustain?

## **ENVIRONMENTAL SCIENCE (SVN3M – Univ/College Prep)**

### **STRAND: SCIENTIFIC SOLUTIONS TO CONTEMPORARY ENVIRONMENTAL CHALLENGES**

**B 1.1** analyse, on the basis of research , social and economic issues related to a particular environmental challenge (eg. overfishing, deforestation, acid rain, melting of the polar ice cap) and take efforts to address it

**Sample issue:** Sample issue: Greenhouse gas emissions from motor vehicles are a major contributor to global warming. The use of ethanol and other biofuels in motor vehicles reduces these emissions. However, diverting crops from food production to fuel production can increase prices and decrease the supply of food.

**Sample question:** In what ways can consuming locally grown foods help the local economy, society, and the environment?

**B1.2** analyse ways in which societal needs or demands have influenced scientific endeavours related to the environment (e.g., the development of drought- and pest-resistant crops to address the rising global need for food)

### **STRAND: SUSTAINABLE AGRICULTURE AND FORESTRY**

**D 1.1** evaluate, on the basis of research, a variety of agricultural and forestry practices (eg. companion planting, biological pest control, the use of genetically modified seed, forest fire control) with respect to their impact on the environment and the economy

**Sample questions:** What are the economic and environmental pros and cons of growing crops that are genetically modified to be herbicide resistant? Why is organic produce more expensive than conventionally grown produce? What are the economic advantages of monoculture on farms? How can monocultural practices lead to environmental degradation?

**D2.1** use appropriate terminology related to sustainable agriculture and forestry, including, but not limited to: bioremediation, crop rotation, companion planting, organic product, humus, compost, mulch, silviculture, and naturalization

**D 2.5** use a research process to investigate environmentally sustainable methods of managing and maintaining healthy and productive agricultural zones and forests (eg. companion planting, crop rotation)

**D3.5** explain agricultural techniques and forestry practices that aim to maintain both biodiversity and long-term productivity (e.g., growing a variety of species, inter-planting crops, planting native and heritage varieties instead of hybrids or transgenic species, saving seeds, maintaining some older trees and snags for animal habitat)

## **GRADE 12**



## **NUTRITION AND HEALTH (HFA4U – University Prep)**

### **STRAND: LOCAL AND GLOBAL ISSUES**

**D1.1** explain the importance of each of the key components of food security (e.g., availability, accessibility, adequacy, acceptability, sustainability)

**D1.3** explain the relationships among poverty, food insecurity, poor nutrition, and poor health

**Teacher prompt:** “Why is poor health often associated with poverty and food insecurity?”

**D1.4** evaluate various food-distribution systems in terms of their impact on local and global food security (e.g., systems that improve the availability of fair-trade products and local foods versus imported foods)

**Teacher prompts:** “How does the demand for cash crops such as coffee, cocoa, or sugar affect food security?”  
“What supports might be required to help a farmer switch from cash cropping to subsistence farming?”

**D1.5** demonstrate the ability to combat food insecurity at the local and global level (e.g., write to an elected representative or government official; volunteer with a breakfast program; fundraise for community water wells; plant trees; buy products from women-led cooperatives; become involved in a community garden)

**Teacher prompt:** “What are some actions you can take to reduce local or global food insecurity?”

**D2.2** explain the effects of various agricultural methods (eg. crop rotation, integrated pest management, fallow fields, intercropping, no tillage) on local and/or global food production and yields)

**D2.3** analyse the relationship between various economic, social, and political factors and food supply and production in a particular region or regions (eg. debt repayment requirements, demand for cash crops, oil prices, free-trade agreements, trade embargos or bans, controls on fishing or hunting, import-export restrictions to prevent or control outbreaks of disease)

**Teacher prompts:** “How do a country’s debt-repayment obligations affect its ability to produce its food for its own citizens?” “How does the production of cash crops affect the people of the exporting country and the importing country?”

**D2.4** analyse the effect of various trends in agriculture and aquaculture (eg. organic farming, use of antibiotics, fish farming, genetic engineering, greenhouse food production) on local and global food supply and production

**D3.1** explain how consumer food choices affect the environment, locally and globally (e.g., demand for imported food increases the amount of energy used in transportation; choice of overpackaged products increases the volume of waste going to landfills; demand for fair-trade products supports sustainable farming practices and small-scale farmers but may cause farmers to grow cash crops, such as cocoa and coffee, rather than food; demand for local produce supports farmers’ markets, reduces the use of preservatives, and lowers transportation costs)

**Teacher prompts:** “How can one person’s decision to purchase fair-trade chocolate have an impact on environmental conditions in a different part of the world?” “What is the environmental impact of purchasing bottled water?”

**D3.2** analyse the effect on the environment of various agricultural trends (e.g., growing crops for biofuels) and food production technologies (e.g., types of farm equipment, types of energy sources, climate-control techniques, genetic engineering of foods)

**Teacher prompt:** “What are some positive and negative environmental effects of using land for biofuel production rather than food production?”

## **NUTRITION AND HEALTH (HFA4C – College prep)**

### **STRAND: LOCAL AND GLOBAL ISSUES**

**D1.1** explain the importance of each of the key components of food security (e.g., availability, accessibility, adequacy, acceptability, sustainability)

**Teacher prompt:** “Why would access to potable water be considered a food security issue?”

**D1.4** explain how various food distribution systems affect food security, locally and globally (e.g., farmers’ markets supply local foods from identifiable sources; large supermarkets provide increased access to foods year-round but may contribute to lack of access to foods in other countries; fair-trade networks guarantee the working conditions of the food producers but may lead to choices to grow cash crops rather than food for local consumption)

**Teacher prompt:** “How do changes in demand for local foods affect the food security of farmers and communities?”

**D1.5** demonstrate the ability to act to combat food insecurity at the local and global level (e.g., write to elected representatives or government officials; volunteer with a breakfast program; fundraise for community water wells; plant trees; buy products from women-led cooperatives; become involved in a community garden; work on a local farm)

**Teacher prompts:** “What criteria will you use to determine the best course of action that you could take to fight food insecurity?” “How do women-led cooperatives help to fight food insecurity?”

**D2.2** explain the effects of various agricultural methods (eg. crop rotation, integrated pest management, fallow fields, intercropping, no tillage) on local or global food production and yields

**Teacher prompts:** “Why might regular tillage of soil decrease crop yields?” “How can leaving a field fallow for a season lead to increases in crop yields in future years?”

**D2.3** explain the effect of various economic, social and political factors (eg. debt-repayment obligations, demand for cash crops, oil prices, free-trade agreements, trade embargos or bans, controls on fishing and hunting, import-export restrictions designed to prevent or control outbreaks of disease) on food supply and production

**Teacher prompts:** How do fluctuations in the price of oil on the world markets affect food production?

**D2.4** analyse the effect of various trends in agriculture and aquaculture (eg. organic farming, use of antibiotics, fish farming, genetic engineering, greenhouse food production) on local and global food supply and production

**Teacher prompts:** “How has genetic engineering affected the production and consumption of food?” “What regulations have Health Canada and the Canadian Food Inspection Agency put in place regarding the use of antibiotics with Canadian livestock?” “How are the regulations different for organic farming in Canada?” “How might the differences between organic and traditional farming practices with respect to the use of antibiotics lead to differences in the amount and quality of meat produced?”

**D3.1** describe how consumer food choices affect the environment, locally and globally (e.g., demand for imported food increases the amount of energy used in transportation; choice of overpackaged products increases the volume of waste going to landfills; choice of fair-trade products supports sustainable farming and small-scale farmers; demand for local produce supports farmers’ markets and reduces use of fossil fuels)

**Teacher prompt:** “What is the environmental impact of purchasing overpackaged foods? Of purchasing bottled water?”

**D3.2** explain the effect on the environment of various agricultural trends (e.g., growing crops for biofuels) and food-production technologies (e.g., types of farm equipment, types of energy sources, climate-control techniques, genetic engineering of foods)

**Teacher prompt:** “What are some positive and negative environmental effects associated with the production and consumption of genetically modified foods?”

## **FOOD AND HEALTHY LIVING (HFL4E – Workplace prep)**

### **STRAND: THE FOOD CONSUMER**

**D2.1** describe environmentally responsible ways of acquiring food (e.g., buying locally, bartering or exchanging, growing their own vegetables)

**Teacher prompt:** “How does buying locally grown produce help the environment?”

## **EQUITY AND SOCIAL JUSTICE: FROM THEORY TO PRACTICE (HSE4M – Univ/College Prep)**

### **STRAND: ADDRESSING EQUITY AND SOCIAL JUSTICE ISSUES**

**C1.3** analyze the role of economics and globalization in promoting or impeding equity or social justice (eg. the impact of World Bank policies, the rise of the middle class in China and India, the creation of maquiladoras in Mexico, the lack of labour and environmental industrial standards in the Canada – U.S. Free Trade Agreement, the establishment of microcredit organizations)

**Teacher prompt:** “How has the rise of China as a global economic power affected human rights in that country?” “What impact have World Bank and/or International Monetary Fund policies had on social justice in African or Latin American countries?” “What effect has the marketing of fair-trade products had on farm economies in developing countries?”

**C1.4** assess the equity and social justice implications of major environmental issues (eg., the privatization of water; the shipment of electronic waste to developing countries; the unsustainable exploitation of natural resources; issues relating to genetically modified crops and the seed-saving movement; the impact of global warming, and policies to reduce global warming, on developing countries; urban/industrial development of protected land or land whose ownership is disputed)

**Teacher prompt:** “How do discrepancies between countries’ environmental standards benefit some countries or groups of people and harm others?” “What developments need to occur in international law to address global environmental issues?” “What impact has the demand for corn for biofuel had on farmers in developing countries? How are farming practices affected when a large corporation owns and controls the use of seeds?”

**C2.3** analyse equity and social justice issues that have been confronted by various religious leaders and movements, and assess the contributions that specific religious leaders and movements have made to the advancement of equity and social justice (e.g., Oscar Romero’s championing of the poor and powerless in El Salvador; Mother Teresa’s hospices in India; Desmond Tutu’s resistance to apartheid in South Africa; the Dalai Lama’s challenge to the Chinese control of Tibet; the role of Quakers in the emancipation of slaves; the impact of liberation theology on social inequality in Latin America; the connection between tikkun olam initiatives and human rights)

**Teacher prompt:** “What types of social justice issues did the Social Gospel movement confront in Canada?” “What connections did Dorothy Day make between Catholicism and workers’ rights?” “What impact did Martin Luther King Jr.’s religious background have on his work in the civil rights movement in the United States?” “What role have Buddhist monks played in protesting human rights abuses in Myanmar?”

### **STRAND: PERSONAL AND SOCIAL ACTION**

**D1.3** analyse ways in which personal actions (e.g., voting, establishing student social justice clubs, supporting fair/ethical trade practices through consumer action, participating in the public policy– creation process, working for political candidates, participating in a labour union, engaging in advocacy activities, reducing energy consumption) can empower individuals and reduce the impact of inequity or social injustice in local, national and international contexts

**Teacher prompt:** “What are the costs and benefits of purchasing organic and fair-trade products?” “How can you know whether buy-cotting has a positive effect on the producers of the product you are purchasing?” “Why is it important for citizens to get involved in election campaigns?”

**D3.1** identify a specific need related to an equity or social justice issue, and design an initiative to address this need (e.g., an initiative such as designing a school workshop or campaign to promote diversity; creating and publicly presenting rap songs, videos, visual art works, dances, dramatizations, or podcasts on the impact and prevention of discrimination; organizing a petition or letter-writing campaign on a social justice issue)

**Teacher prompt:** “What social justice issue do you think needs to be addressed in your school? Who could you consult to assess the impact of the issue in your school?”

### **ANALYZING CURRENT ECONOMIC ISSUES (CIA4U – University)**

#### **STRAND: ECONOMIC STAKEHOLDERS**

-explain the concept of stewardship as it applies to specific examples of economic responsibility and choice (e.g., pollution, income distribution, use of resources and energy);

### **CANADIAN AND WORLD ISSUES: A GEOGRAPHIC ANALYSIS (CGW4U – University)**

#### **STRAND: HUMAN-ENVIRONMENT INTERACTIONS**

-analyse the effects on the environment of various trade policies or agreements (e.g., fair-trade cooperatives, North American Free Trade Agreement).

#### **STRAND: GLOBAL CONNECTIONS**

- identify current global sustainability issues and environmental threats
- explain how economies and environments in some places can be affected by decisions made in other places
- analyse problems of hunger and poverty in selected countries and explain how certain practices may aggravate the problems (eg. military spending, natural hazards, the growing of cash crops, foreign monetary intervention)

### **WORLD GEOGRAPHY: HUMAN PATTERNS AND INTERACTIONS (CGU4U – University)**

#### **STRAND: HUMAN-ENVIRONMENT INTERACTIONS**

-identify examples from around the world of positive and negative effects of human activities on the natural environment

#### **STRAND: GLOBAL CONNECTIONS**

-evaluate the impact of technological change (e.g., industrialization, the Internet) in a region of the world;

### **THE ENVIRONMENT AND RESOURCE MANAGEMENT (CGR4M – Univ/College prep)**

#### **STRAND: UNDERSTANDING AND MANAGING CHANGE**

- evaluate the environmental implications of developments in selected areas of technology (eg. renewable-energy technologies, biotechnology, forest-harvesting technologies etc)
- analyse the environmental impact of a particular industry or human system (eg. tourism, diamond mining, a transportation system, a city) and recommend practices to promote economic and environmental sustainability.

### **THE ENVIRONMENT AND RESOURCE MANAGEMENT (CGR4E – Workplace)**

#### **STRAND: GLOBAL CONNECTIONS**

- explain the concept of stewardship and how it relates to the sustainability of the resources of the global commons (e.g., air, water, soil);
- describe the ways in which international organizations (e.g., Greenpeace, World Wildlife Fund, Sierra Club, Development & Peace) and agreements (eg. Kyoto Protocol, Montreal Protocol, Great Lakes Water Quality Agreement) help to protect the global environment

## **STRAND: UNDERSTANDING AND MANAGING CHANGE**

- compare the environmental impact of past and present methods (e.g., in mining, fishing, agriculture, forestry, trapping) for harvesting/extracting and processing a selected natural resource;

### **BIOLOGY (SBI4U – University Prep)**

#### **STRAND: MOLECULAR GENETICS**

**D 1.1** analyse, on the basis of research, some of the social, ethical and legal implications of biotechnology (eg. the cultivation of transgenic crops)

**Sample Issue:** Corporations that have patented genetically modified (GM) seeds legally require farmers to buy new seeds from them each planting season. Corporations that find GM crops on a farm that did not purchase their seed can take the farmer to court. However, natural processes such as cross-pollination can result in the migration of GM crops to neighbouring farms.

**Sample question:** Should private companies be able to patent life forms, including genetic material?

**D1.2** analyse, on the basis of research, some key aspects of Canadian regulations pertaining to biotechnology (eg. patenting genetically modified organisms) and compare them to regulations from another jurisdiction

**Sample issue:** Modern biotechnologies, such as selective breeding, are regulated under Health Canada's Food and Drugs Act and the Canadian Environmental Protection Act. It is an ongoing challenge to ensure that our regulations keep up with advances in scientific knowledge and technologies, as well as with developments in other countries.

**Sample question:** Why does Mexico have laws to limit the cultivation of genetically modified corn?

### **SCIENCE (SNC4M – Univ/College Prep)**

#### **STRAND: BIOTECHNOLOGY**

**F 1.1** analyse social issues related to an application of biotechnology in the health, agricultural, or environmental sector (eg. issues related to genetically modified organisms or to the uses of and availability of in vitro fertilization)

**Sample issue:** The promise of genetically modified (GM) crops was that they would be resistant to pests and would produce more abundant harvests. However, GM crops can crossbreed with crops in adjoining fields, thus contaminating traditional food sources, reducing biodiversity, changing farming practices, and limiting the choices available to consumers.

### **SCIENCE (SNC4E – Workplace Prep)**

#### **STRAND: NUTRITIONAL SCIENCES**

**F1.1** assess the environmental implications of food choices available in a variety of situations (e.g., in the school cafeteria, a fast-food restaurant, a supermarket, a local farmers' market, an organic meat shop), and propose ways to minimize the environmental impact of their food choices

**Sample issue:** Supermarkets commonly sell imported produce, distributed through large warehouses, even when the same types of food are in season locally and are available from local farmers. Importing foods generates greater carbon emissions but may be seen as more efficient if local farmers lack a reliable distribution system.

**Sample questions:** What is the environmental impact of organic farming compared to traditional farming methods? What are the advantages and disadvantages of buying certified organic foods from a local farmer?

## **ISSUES OF INDIGENOUS PEOPLES IN A GLOBAL CONTEXT (NDW4M – Univ/College Prep)**

### **STRAND: IDENTITY**

-describe how indigenous peoples throughout the world have maintained the core principles of an indigenous world view (eg. land stewardship; cooperation; reciprocal relationships, such as “people with people”, “people with the Creator”, “people with the environment”; or have lost their traditional ways (e.g., destruction of the rain forest).

-demonstrate an understanding of the different political, economic, and environmental issues that unite indigenous peoples throughout the world (eg. decolonization, economic exploitation, preservation of biodiversity)

**STRAND: CHALLENGES**

-demonstrate an understanding of the global roles that indigenous people see for themselves (eg. stewardship of the environment, co-management of resources with national governments)

-describe the strategies that indigenous peoples are using to sustain their cultures and languages; and to protect the environment

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Thank you to the member-volunteers of PVNCCDSB & St. Clair CDSB who prepared these curriculum connections.

If you use this activity for curriculum not listed here please send your curriculum connections to [schools@devp.org](mailto:schools@devp.org) to be shared with fellow teachers.

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