



**Correlation between  
*Food and Nutrition Sciences Lab Manual* and  
Food and Nutrition Sciences, Grade 12,  
University/College Preparation (HFA4M)  
Ontario Curriculum**

**Self and Others**

**Overall Expectations**

- identify the social, psychological, economic, emotional, cultural, religious, and physical factors that affect food choices;
- summarize food-related issues that arise throughout the life cycle;
- plan, perform, and present the results of an investigation into the nutritional status of Canadians.

**Specific Expectations**

Factors Affecting Food Choices	Unit	Pages
• identify psychological and emotional factors that affect eating habit (e.g., eating to relieve tension or boredom, deriving comfort from food);	<b>2</b>	<b>54-56, 89-96</b>
• describe the sociocultural importance of food in social interactions (e.g., celebrations and gatherings of friends; family rituals; in the transmission of family culture, religion, and traditions; as a symbol of hospitality; as a status symbol);	<b>2</b>	<b>54-58, 89-96</b>
• describe economic factors that have an impact on the food choices of individuals and families;	<b>2</b>	<b>54-58, 89-96</b>
• identify the ways in which physical factors influence food choices (e.g., geographical location, regional growing seasons, availability of food markets, home storage capacity);	<b>2</b>	<b>54-58, 89-96</b>
• plan menus for, select, and prepare foods, taking into consideration economic, geographical, and seasonal factors that affect the availability of ingredients.	<b>1</b>	<b>15-22, 26-29, 39-41</b>
	<b>2</b>	<b>70-71, 80-81, 86-88</b>
	<b>3</b>	<b>105-107, 118-120</b>
	<b>4</b>	<b>140-144, 158-159</b>

<b>Food Issues Throughout the Life Cycle</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>identify the factors that affect personal food choices throughout the life cycle (e.g., age, health, school and/or work schedules, lifestyle, level of physical activity, lactation, special dietary needs);</li> </ul>	<b>2</b>	<b>59-83, 89-96</b>
<ul style="list-style-type: none"> <li>plan, conduct, and summarize the results of an investigation into the availability of food products suitable for various stages of the life cycle (e.g., single-serving products, baby food, fat-reduced food);</li> </ul>	<b>2</b>	<b>54-83, 89-96</b>
<ul style="list-style-type: none"> <li>plan a menu for, select, and prepare foods that would meet selected dietary needs during the different stages of life.</li> </ul>	<b>1</b>	<b>15-22, 26-29, 39-41</b>
	<b>2</b>	<b>84-88, 89-96</b>

<b>Nutritional Status of Canadians</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>compile a body of core information on the nutritional status of Canadians and determine personal nutrient intake, using a variety of print and electronic sources and telecommunications tools (e.g., <i>Canada's Food Guide to Healthy Eating</i> and Health Canada's <i>Nutrition Recommendations</i>, computer courseware, Internet sites);</li> </ul>	<b>1</b>	<b>1-4, 44, 45-52</b>
<ul style="list-style-type: none"> <li>demonstrate an understanding of how the findings of their nutrition survey apply to themselves and their families.</li> </ul>	<b>1</b>	<b>1-4, 45-52</b>

## Personal and Social Responsibilities

### Overall Expectations

- identify the source of nutrients and the role they play in the maintenance of good health;
- determine the relationship among nutrition, lifestyle, health, and disease;
- identify examples of entrepreneurship in the food industry, and occupations related to food and nutrition sciences.

### Specific Expectations

<b>Sources and Roles of Nutrients</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>identify the role of fibre and water in the body, and the sources and roles of the major components of nutrients (e.g., carbohydrates, fats, proteins, vitamins, minerals);</li> </ul>	<b>1</b>	<b>1-14, 45-52</b>
<ul style="list-style-type: none"> <li>demonstrate an understanding of the nutrients provided by foods in each category of <i>Canada's Food Guide to Healthy Eating</i> and other dietary guides and standards, and using this knowledge, describe ways to achieve healthy body weight and body image;</li> </ul>	<b>1</b>	<b>1- 14, 30-35, 45-52</b>
<ul style="list-style-type: none"> <li>report information gathered from an existing database on the process of digestion, absorption, and metabolism of food, and on the caloric intake of individuals;</li> </ul>	<b>1</b>	<b>23-29, 45-52</b>

<ul style="list-style-type: none"> <li>describe ways of preparing and storing food to provide for maximum nutrient retention;</li> </ul>	1	15-22, 26-29, 39-41
	2	70-71, 80-81, 86-88
	3	105-107, 118-120
	4	140-144, 158-159
<ul style="list-style-type: none"> <li>demonstrate how to use equipment correctly to prepare and store foods for maximum nutrient retention (e.g., steamer, pressure cooker, freezer).</li> </ul>	1	15-22, 26-29, 39-41
	2	70-71, 80-81, 86-88
	3	105-107, 118-120
	4	140-144, 158-159

Nutrition and Health	Unit	Pages
<ul style="list-style-type: none"> <li>identify the social conditions that contribute to the incidence of illness and disease (e.g., improper nutrition, the pressure of daily living, stress);</li> </ul>	1	1- 52
	2	76-79, 89-96
	3	98-100, 109-127
<ul style="list-style-type: none"> <li>explain the relationship among lifestyle, food choices, and nutrition-related illnesses and diseases (e.g., cardiovascular disease, anorexia nervosa, tooth decay, osteoporosis);</li> </ul>	1	1-52
	3	98-100, 109-127
<ul style="list-style-type: none"> <li>explain how the messages in <i>Canada's Food Guide to Healthy Eating</i> and other dietary guides and standards relate to current scientific knowledge concerning the relationship between diet and disease;</li> </ul>	1	1- 14, 30-35
<ul style="list-style-type: none"> <li>identify the recommended daily allowances of nutrients for optimal health, by gender and age;</li> </ul>	1	1- 14, 30-35
	2	59-83
<ul style="list-style-type: none"> <li>describe the types of vegetarian dietary regimens and the reasons people adopt them;</li> </ul>	2	84-96
<ul style="list-style-type: none"> <li>use a variety of print and electronic sources and telecommunications tools to investigate a current nutritional issue of their choice;</li> </ul>	2	53-96
	3	109-127

<ul style="list-style-type: none"> <li>use available resources, including computer technology, both to plan a menu consisting of foods that will maintain good health, and to select and prepare those foods.</li> </ul>	1	15-22, 26-29, 39-41
	2	70-71, 80-81, 86-88
	3	105-107, 118-120
	4	140-144, 158-159

Occupations and Entrepreneurship Opportunities in Food and Nutrition Sciences	Unit	Pages
<ul style="list-style-type: none"> <li>use a variety of print and electronic sources to find information on employment opportunities in areas relating to food and nutrition sciences, such as health and medicine, hospitality services, agriculture, and food technology and production;</li> </ul>	2	61-62
	3	98-130
	4	151-152
<ul style="list-style-type: none"> <li>identify types of small businesses related to the food industry (e.g., cottage industries, vendors of Native food products, truck gardeners, pick-your-own-produce ventures);</li> </ul>	4	131-134, 153-159
<ul style="list-style-type: none"> <li>design, cost, market, produce, and evaluate a food product (e.g., flavoured vinegar, sugared nutmeats, seasonal cookies).</li> </ul>	Course culminating activity	161-180

## Diversity, Interdependence, and Global Connections

### Overall Expectations

- identify the components and foods that form the basis of various cuisines around the world;
- identify the economic, political, and environmental factors that affect food production and supply throughout the world
- identify the factors that are critical to achieving and maintaining food security and eliminating hunger.

### Specific Expectations

World Cuisine	Unit	Pages
<ul style="list-style-type: none"> <li>identify the components of a cuisine (e.g., staple foods, conventions of service and consumption, utensils);</li> </ul>	3	97-108, 124-130
<ul style="list-style-type: none"> <li>describe a selection of the wide variety of tastes and food preferences displayed by societies around the world;</li> </ul>	3	97-108, 124-130

<ul style="list-style-type: none"> <li>demonstrate an understanding of the scientific principles of a variety of types of food preparation (e.g., starch cookery, gluten development, protein cookery);</li> </ul>	1	15-22, 26-29, 39-41
	2	70-71, 80-81, 86-88
	3	105-107, 118-120
	4	140-144, 158-159
<ul style="list-style-type: none"> <li>conduct and present the findings of an analysis of the nutritional value of a variety of cuisines from around the world;</li> </ul>	3	97-108, 124-130
<ul style="list-style-type: none"> <li>plan, prepare, and serve (using available ingredients and technology) specific foods prepared in the style of a variety of ethnic and/or Native cuisines, and draw comparisons among them.</li> </ul>	3	105-107, 118-120

<b>Factors Affecting Food Production and Supply</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>describe the effects of various economic factors on food production and supply (e.g., standards of living, poverty, personal and family incomes, employment and unemployment);</li> </ul>	3	98-100, 109-127
	4	131-137
<ul style="list-style-type: none"> <li>investigate the impact of a variety of political factors on food quality, production, and supply (e.g., international food policies, national and provincial food policies, food marketing boards), and present the results of their investigation;</li> </ul>	3	98-100, 109-127
	4	131-137, 145-147
<ul style="list-style-type: none"> <li>demonstrate an understanding of the effects of different environmental factors and issues on the production and supply of food items (e.g., energy and resources required to produce various foods; use of pesticides, fertilizers, food additives, and irradiation);</li> </ul>	4	131-137, 138-144, 145-147
<ul style="list-style-type: none"> <li>identify the impact of biotechnology (e.g., antibiotics in the food supply, bovine growth hormone) on food production, supply, and safety;</li> </ul>	4	131-137, 148-150
<ul style="list-style-type: none"> <li>identify legislation governing pesticide and fertilizer use, food additives, and the labelling of biogenetically engineered foods</li> </ul>	4	131-137, 145-147
<ul style="list-style-type: none"> <li>identify current food crises (e.g., contamination, crop failures), the factors causing each of them (e.g., production increases, unfavourable global weather changes), and their impact on the availability and cost of food</li> </ul>	4	131-137, 145-147

<b>Food Security and Hunger</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>investigate the extent of hunger in the world today and present the results of their investigation;</li> </ul>	3	98-100, 109-127

<ul style="list-style-type: none"> <li>describe micro-nutrient deficiencies (e.g., iron, iodine, vitamin A) prevalent in Canada and throughout the world;</li> </ul>	1	15-22, 26-29, 39-41
	3	98-100, 109-127
<ul style="list-style-type: none"> <li>summarize the causes of food insecurity (e.g., an emphasis on cash-cropping and large-scale food production, globalization, urbanization, continued feminization of poverty);</li> </ul>	3	98-100, 109-127
<ul style="list-style-type: none"> <li>identify economic and social policies that influence food security (e.g., debt restructuring, the operations of the World Bank);</li> </ul>	3	98-100, 109-127
<ul style="list-style-type: none"> <li>describe the social and cultural traditions that account for inequality among peoples of the world (e.g., gender issues, distribution of wealth, failure to support small business);</li> </ul>	3	98-100, 109-127
<ul style="list-style-type: none"> <li>identify the ways in which the local community is responding to hunger and food security (e.g., with food banks, community gardens);</li> </ul>	3	98-100, 109-127
<ul style="list-style-type: none"> <li>describe policies necessary to protect the health and safety of food producers (e.g., against the risk of contaminants), and to protect land and water quality, and biodiversity.</li> </ul>	4	131-137, 145-148

## Social Challenges

### Overall Expectations

- predict trends in the preparation of foods in the home and in the commercial sector;
- describe noticeable trends in food-consumption patterns.

### Specific Expectations

Trends in Food Preparation and Consumption	Unit	Pages
<ul style="list-style-type: none"> <li>identify new developments in food preparation and service (e.g., types of restaurant service, ways of presenting foods, styles of kitchens in the home, kitchen appliances);</li> </ul>	4	153-161
<ul style="list-style-type: none"> <li>describe new foods and food products (e.g., whole-wheat pasta, specialty coffee beverages, soybean products) and analyse their role in the Canadian diet;</li> </ul>	4	138- 143, 153-161
<ul style="list-style-type: none"> <li>describe the appeal and uses of herbs and spices (e.g., sensory, cultural, nutritive) in food preparation;</li> </ul>	3	97-108, 124-130
<ul style="list-style-type: none"> <li>use a variety of print and electronic sources and telecommunications tools to investigate and report on the technology behind some of the new food products and trends that will influence eating habits in the future;</li> </ul>	4	153-161
<ul style="list-style-type: none"> <li>present the results of an investigation into trends in agribusiness and aquaculture in Canada and the world;</li> </ul>	4	131-137, 153-161
<ul style="list-style-type: none"> <li>prepare a menu using some new food products or recipes, and evaluate the results.</li> </ul>	4	153-161

## Research and Inquiry Skills

### Overall Expectations

- use appropriate social science research methods in the investigation of food-related issues;
- correctly use terminology associated with food and nutrition;
- communicate the results of their inquiries effectively.

### Specific Expectations

Using Research Methodology	Unit	Pages
<ul style="list-style-type: none"> <li>• correctly use the terminology of food and nutrition sciences (e.g., <i>nutrient deficiencies, food security, vegetarianism, cuisine, agribusiness, gluten development</i>);</li> </ul>	1	1-52
	2	53-96
	3	97-130
	4	131-167
<ul style="list-style-type: none"> <li>• identify the models of social science research methodology used to study food and nutrition sciences;</li> </ul>	2	58, 61-66, 74-75, 86 –88, 93-96
<ul style="list-style-type: none"> <li>• demonstrate the effective use of data- collection skills and methods, including questionnaires, interviews, and surveys;</li> </ul>	2	93-96
<ul style="list-style-type: none"> <li>• compile information from a variety of primary research sources (e.g., interviews, personal observations, original documents) and secondary sources (e.g., print materials, Internet articles, CD-ROMS, videos);</li> </ul>	2	58, 61-66, 74-75, 86 –88, 93-96
	4	131-167
<ul style="list-style-type: none"> <li>• distinguish between key and supporting issues in formulating questions to be researched or problems to be solved.</li> </ul>	2	58, 61-66, 74-75, 86 –88, 93- 96
	4	131-167

Organizing and Analysing Information	Unit	Pages
<ul style="list-style-type: none"> <li>• summarize and interpret articles on food and nutrition found in newspapers, magazines, and selected research literature, as well as on the Internet;</li> </ul>	1	1-52
	2	58, 61-66, 74-75, 86 –88, 93- 96
	3	97-130
	4	131-167
<ul style="list-style-type: none"> <li>• differentiate between research evidence and opinion;</li> </ul>	2	58, 61-66, 74-75, 86 –88, 93-96
	4	131-167

<ul style="list-style-type: none"> <li>evaluate print and electronic sources on food and nutrition for bias, accuracy, validity, authority, and relevance.</li> </ul>	<b>2</b>	<b>58, 61-66, 74-75, 86 –88, 93-96</b>
	<b>4</b>	<b>131-167</b>

<b>Communicating Results</b>	<b>Unit</b>	<b>Pages</b>
<ul style="list-style-type: none"> <li>record information and key ideas gathered from their research, and document sources accurately, using correct forms of citation;</li> </ul>	<b>2</b>	<b>53-96</b>
	<b>4</b>	<b>131-167</b>
<ul style="list-style-type: none"> <li>effectively communicate the results of their inquiries, using a variety of methods and forms (e.g., graphs, charts, diagrams, oral presentations, written reports, videos).</li> </ul>	<b>1</b>	<b>1-52</b>
	<b>2</b>	<b>53-96</b>
	<b>3</b>	<b>97-130</b>
	<b>4</b>	<b>131-167</b>