

Age-Appropriate Nutrition Education

Guidance for Developing Classroom Education



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Introduction

This document contains guidance for the teaching and development of food and nutrition-related classroom resources in Alberta schools. It is based on Dr. Joyce Slater's [Food Literacy Progression](#) framework¹ along with Ellyn Satter's [Evaluation Rubric from the Perspective of ecSatter and fdSatter](#)² and Jean Piaget's Theory of Cognitive Stages of Development.³

Slater's Food Literacy Progression framework, a document that outlines food and nutrition topics and the progression of knowledge, skills and attitudes that children develop, has been modified for health professional and educator use within Alberta. Slater describes food literacy as a "broad concept encompassing a spectrum of both tacit and procedural knowledge, skills and attitudes about food."¹ For the purpose of this document, food literacy is considered to include the knowledge, beliefs, experiences and practical skills about food.⁴

Framework content was adjusted to scope this document to those areas which are most relevant to the Alberta curriculum. This guidance is intended to complement and not replace or override Alberta Education curriculum outcomes. Consideration was also given to using a Comprehensive School Health approach as outlined on [Healthier Together Schools](#).

Overarching Guidance

Respect Mealtime Roles

Develop classroom resources, activities, and lesson plans with an awareness and respect for the feeding relationship and the roles of educators, parents, and students.

	Parents/Caregivers	Students	Schools
Role	<ul style="list-style-type: none"> Decide what foods are packed and available in the home 	<ul style="list-style-type: none"> Decide if and how much to eat, including the order they eat their food As students get older they may choose from what is available at home or when buying food 	<ul style="list-style-type: none"> Plan when and where food is eaten during the school day Determine what is offered when food is sold or provided

For additional information on mealtime roles, visit: [Ways Educators Can Promote a Healthy Relationship with Food](#).

Use Neutral Language When Talking About Food*

When talking about food and eating, emphasize enjoyment of food and the positive aspects of eating, and use neutral language. Neutral language around food consists of calling foods by their name, using descriptive words to describe sensory aspects, and avoiding nutrition education during mealtimes. Referring to the groups of food in Canada's food guide is considered neutral as they are based on nutrient composition, and do not contain judgement. Further examples of language to use are found in this resource: [Ways Educators Can Promote a Healthy Relationship with Food](#).

*Classification of foods based on nutrient composition (e.g., "offer most often") may be necessary for food policy, menu planning and food provisions to ensure a common understanding of what food and beverage are offered or sold in schools.

Take Weight Out of the Classroom – Use a Health and Well-being Approach

Use health promotion messaging that accepts all body shapes and sizes, is sensitive to the potential impact of internalizing weight-centric messaging and is protective of a healthy relationship with food and body. A condensed summary of the research and recommendations by the Body Image Research Lab at the University of Calgary's Werklund School of Education on this concept are found here: [Weight-Neutral Wellbeing in the School Setting](#) and [School is for Every Body: Our Vision for Weight-Neutral Wellbeing in the School Setting](#).

As quoted from the 2023 article *Taking Weight Out of the Equation: Unintended Harms of Weight-Focused Health Discord in Schools* by Tingle et al., it is highlighted that,

“Weight-centric health promotion in schools can lead to serious unintended consequences, including the unintended harms of weight bias and eating disorders. In this effort, we argue for the use of a weight-neutral approach as a preferred framework for promoting and discussing health among all members of a school community. Health promotion in schools must be implemented with a considered and nuanced approach to the topics of weight, physical activity and nutrition to avoid unintended harms.”

Consider Stage of Cognitive Development

Children’s ability to understand and apply nutrition information is impacted by their age and stage of cognitive development. Develop resources and lesson plans with consideration of developmental appropriateness, i.e., how children think and translate information at different ages. An overview is summarized in Figure 1 below. Note: the first stage in Piaget’s Theory of Cognitive Development is Sensorimotor and describes birth to 2 years.³ This stage is not captured here due to the scope of this document.

Preoperational (2–6 years old)

- Use symbols (words and images) to represent objects
- Do not reason logically
- Think in very concrete terms
- Is able to pretend and is getting better with language and thinking
- Is egocentric (assumes others see, hear, feel the same way they do; unable to see another person’s perspective)

Concrete Operational (7–12 years old)

- Think logically about concrete objects
- Begin using inductive logic or reasoning
- Start being able to think about how other people might think or feel
- Organize information into hierarchies or classes

Formal Operational (12 years old – Adult)

- Reason abstractly
- Think in hypothetical terms
- Begin to think about more moral, philosophical, ethical and political issues that require theoretical and abstract reasoning
- Become capable of seeing multiple potential solutions to problems and think more scientifically

Figure 1. Examples of cognitive ability and thought processes by age group, as theorized in Piaget’s Theory of Cognitive Development.³

Food Literacy Progression – Overview of Competencies

Adapted with permission from Dr. Joyce Slater's Food Literacy Progression Framework for Children and Youth¹

Functional Competencies

Confidence & Empowerment with Food*

*Food refers to food and drinks

Nutrition

Understand the link between food and health at different ages and developmental stages

Find reliable food and nutrition information

Food Safety & Hygiene

Use safe food handling practices when preparing, cooking and storing food

Practice effective personal hygiene

Follow safe kitchen and equipment use procedures

Being an Informed Consumer

Critically appraise food industry interests and marketing strategies

Critically evaluate food and nutrition messaging on social media platforms

Distinguish between food and nutrition facts and myths

Food Skills

Plan and prepare a range of dishes and meals using appropriate kitchen tools and equipment

Obtaining Food

Navigate food environments for health, convenience and economics

Food Origins

Understand where and how food is produced (e.g., agricultural practices)

Relational competencies

Joy & Meaning Through Food

Positive Relationships with Food

Enjoy food and eating

Be present and attentive to food and eating

Choose food that promotes well-being and self-determination

Have a positive body image of self and others

Understand that food is more than nutrients

Food & Culture

Enjoy food traditions, celebrations, cultural food and family recipes

Understand cultural influences on food and eating

Appreciate food and ways of eating from diverse cultures

Systems competencies

Equity & Sustainability for Food Systems

Social Justice

Understand food security issues at individual, community and global levels

Discover scope of careers in food production and nutrition

Be aware of social justice implications of food production and choices

Food & Environmental Sustainability

Be aware of the relationship between food and environmental sustainability

Reduce food waste

Food Literacy Developmental Benchmarks for Children & Youth

Functional Competencies - Confidence & Empowerment with Food

Nutrition

- Understand the link between food and health at different ages and developmental stages
- Find reliable food and nutrition information

Ages 4–6 / Kindergarten - Grade 1

- Recognize that food and water are essential for life
- Explore minimally processed vs. whole foods (e.g., whole fruit apple to apple sauce)
- Recognize that foods can be fresh, frozen, dried or canned
- Choose to drink mainly water when thirsty

Ages 6–7 / Grades 2–3

- Explore minimally processed vs. whole foods (e.g., natural cheese vs processed cheese)
- Recognize that a balanced and varied diet is needed to grow, be active and be healthy
- Recognize that some people eat or avoid certain foods for different reasons (e.g., allergy, intolerance, religion, preference)

Ages 8–11 / Grades 4–6

- Use Canada's food guide as key messages for healthy eating, including proportions of different foods
- Recognize that a variety of foods are needed to provide different nutrients for body functions and health (e.g., energy, carbohydrate, protein, fat, vitamins, minerals, water and fibre)
- Explain the role of water in the body and encourage water as the drink of choice
- Recognize nutrition claims on food packaging, advertising and social media
- Recognize that some packaged food has added non-food ingredients (e.g., preservatives)

Ages 12–14 / Grades 7–9

- Use dietary guidelines to design varied and balanced meals and snacks
- Recognize that food and nutrient needs change through life stages
- Recognize that it is important to eat meals and snacks regularly to nourish the body, cellular growth, and to support mental and physical performance
- Recognize that Canada's food guide is broken down into different groupings to help with obtaining all of the essential nutrients
- Explain that human bodies contain water and need fluid from food and drinks to work properly
- Explain nutrition and health claims
- Recognize changing nutrition requirements during adolescent growth

Ages 15–18 / Grades 10–12

- Use dietary guidelines to design their own meal plan to meet their individual requirements (e.g., sports nutrition considerations, allergies, etc.)
- Identify different types of food processing (including ultra processed) and how they may or may not contribute to a healthy, varied diet
- Recognize that the need for water is affected by several factors (e.g., hot weather, physical activity), and recognize consequences of dehydration
- Value the role of food in personal health and well-being
- Find reliable nutrition information
- Recognize that some nutrients depend on each other to work effectively (e.g., vitamin D and calcium), enhance efficiency (vitamin C and non-heme iron) and some might work against the uptake/ absorption of others

Food Safety & Hygiene

- Use safe food handling practices when preparing, cooking and storing food
- Practice effective personal hygiene
- Follow safe kitchen and equipment use procedures

Note: Environmental Public Health has school food safety resources for [schools and facilitators](#) and should be involved in review of food safety and hygiene resources, as necessary

Ages 4–6 / Kindergarten - Grade 1

- Demonstrate hygiene skills required for cooking (e.g., tie back long hair, wash hands, wear an apron)
- Demonstrate handwashing skills

Ages 6–7 / Grades 2–3

- Recognize that food (purchased or cooked) needs to be stored in different ways (e.g., fridge, freezer)
- Recognize the importance of preparing and cooking food safely and hygienically (e.g., handwashing, cleaning up, keeping work surfaces clean)

Ages 8–11 / Grades 4–6

- Explain that food safety means preventing contamination and spoilage when handling and storing food, so that it is safe to eat
- Demonstrate good food safety practices when getting ready to store, prepare and cook food (e.g., keep raw meat away from other food, thorough handwashing)
- Explain date-marks and storage instructions on food labels

Ages 12–14 / Grades 7–9

- Explain principles of preventing cross-contamination, hand hygiene and sanitation
- Plan and carry out food storage, preparation, chilling/cooking food thoroughly, and safely reheating food
- Use date-mark and storage instructions on food labels when storing and using food
- Recognize that some foods have a higher risk of food poisoning than others (e.g., raw chicken)
- Recognize that food preservation keeps food safe to eat

Ages 15–18 / Grades 10–12

- Implement safe food handling when preparing, cooking and serving food (e.g., handwashing, avoiding cross-contamination)
- Use food safety information on food labels when buying, storing and consuming food
- Explain food poisoning, its symptoms and preventative measures
- Understand how the processes of freezing, canning, pickling and/or drying are used to preserve foods

Food Origins

- Understand where and how food is produced (e.g., agricultural practices)

Ages 4–6 / Kindergarten - Grade 1

- Differentiate foods that come from plants and animals
- Explain where food comes from (e.g., farm, sea, land, wild)
- Recognize that food can be purchased, grown at home or school, or gathered/hunted from the land
- Grow a seedling
- Describe some foods that are produced locally

Ages 6–7 / Grades 2–3

- Recognize that different foods are sometimes produced in different seasons
- Recognize that food can be processed and packaged in different ways

Ages 8–11 / Grades 4–6

- Explain where and how a variety of foods/ ingredients are grown, raised, caught and processed
- Explain the basic steps in food production, including local food products
- Grow basic food plants (e.g., herbs)
- Identify seasonal foods

Ages 12–14 / Grades 7–9

- Recognize that food is produced, processed and sold in different ways (e.g., conventional and organic farming, greenhouses, fishing, hunting, gathering, local markets)
- Explain different stages in food production and processing
- Describe community benefits of local food production and distribution
- Recognize how geography, weather and climate influence food availability

Ages 15–18 / Grades 10–12

- Explain food production and distribution systems (farming, harvesting, shipping, processing, marketing and distribution)
- Recognize that many foods contain additives (e.g., artificial flavours, colours, preservatives) that are regulated and monitored by [Health Canada](#) on an ongoing basis for safety

Food Skills

- Plan and prepare a range of dishes and meals using appropriate kitchen tools and equipment

Ages 4–6 / Kindergarten - Grade 1

- Recognize and taste a range of familiar foods and ingredients
- Describe food textures, smells, flavour (i.e. the ‘senses’ of food)

Ages 6–7 / Grades 2–3

- Name and use a range of basic tools safely (e.g., small knife, chopping board, measuring spoons)
- Name and use a range of food preparation skills with supervision (e.g., peeling, slicing, mixing, scooping, grating, spreading)
- Help to prepare a range of healthy snacks, dishes and drinks safely and hygienically

Ages 8–11 / Grades 4–6

- Name, taste and prepare a range of simple foods and healthy recipes, reflecting cultural diversity
- Demonstrate an increasing range of food preparation skills (e.g., accurate measuring, cutting, kneading)
- Minimize food waste and compost fruit/vegetable scraps
- Recycle appropriate food packaging
- Identify and follow basic recipes

Ages 12–14 / Grades 7–9

- Use several food preparation techniques and methods when cooking a variety of foods and recipes (e.g., stir-frying, steaming, blending)
- Demonstrate how to prepare and store snacks and dishes safely, using a variety of foods, recipes, and equipment
- Describe how to safely make use of leftovers
- Choose recipes that follow dietary guidelines
- Identify appropriate recipes for a variety of occasions and needs

Ages 15–18 / Grades 10–12

- Apply skills and understanding to plan, prepare and safely cook dishes and menus for a healthy, varied and balanced diet
- Modify recipes and dishes to improve nutritional quality by altering ingredients, and/or by using different cooking methods
- Use technology to find appropriate recipes for a variety of occasions and needs
- Plan a menu for a meal or several days, based on dietary guidelines
- Develop a repertoire of meals and snacks that can be confidently prepared and enjoyed

Obtaining Food

- Navigate food environments for health, convenience and economics

Ages 4–6 / Kindergarten - Grade 1

- Recognize that different settings may affect food choices (e.g., home, school, restaurant)

Ages 6–7 / Grades 2–3

- Recognize that prepackaged foods have labels which provide information to help make choices
- Explain different methods of obtaining food (e.g., grocery store, market, hunting, gathering, fishing)

Ages 8–11 / Grades 4–6

- Explain factors influencing food choice (e.g., availability, season, cost, marketing, packaging, culture, religion, peer-pressure, allergy/intolerance)
- Identify what information can be found on a food label (e.g., nutrition facts table, ingredient lists, claims, 'use by' date)
- Recognize that food can be acquired through online/digital platforms
- Identify main sections of a grocery store/supermarket (physical or online)

Ages 12–14 / Grades 7–9

- Recognize places in the community to access food (grocery stores, cultural markets, food or meal delivery, community kitchens, school snack/meal programs, etc.)
- Learn how to use nutrition and allergy information on food labels (i.e., vitamins, minerals, %DV, etc) and ingredient lists (i.e., ordered by weight)
- Explore common dietary patterns (e.g., plant based, omnivore, vegetarian)
- Evaluate online/digital food platforms based on criteria such as nutrition, cost, environmental impact and marketing
- Plan a food shopping list based on a meal/menu

Ages 15–18 / Grades 10–12

- Compare costs to make food choices based on budget
- Compare foods by interpreting food labels, packaging, nutrition information, and [Health Canada Guidance](#) on nutrient and health claims (i.e., vitamins, minerals, %DV, etc), ingredient lists (i.e., ordered by weight)
- Learn how to stock a pantry/kitchen with staple foods and ingredients
- Use a shopping list to purchase food items online or at grocery store
- Consider a range of factors when making food choices (e.g., seasonality, local food, sustainability)
- Make informed choices when purchasing foods (including digital/online) to achieve a healthy, varied, and balanced diet
- Recognize and compare the costs of eating restaurant/take-out foods vs homemade

Being an Informed Consumer

- Critically appraise food industry interests and marketing strategies
- Critically evaluate food and nutrition messaging on social media platforms
- Distinguish between food and nutrition facts and myths

Ages 4–6 / Kindergarten - Grade 1

Not an age- appropriate nutrition topic

Ages 6–7 / Grades 2–3

Not an age- appropriate nutrition topic

Ages 8–11 / Grades 4–6

- Explain how advertising and product claims can influence food choice
- Recognize food marketing in everyday environments (e.g., school, sport venues, social media, games, television, retail)
- Recognize how food packages are designed to appeal to children
- Distinguish between food marketing and forms of children’s entertainment (Health Canada Policy Update)
- Understand emotional vs. rational decision-making and how the former is used in marketing

Ages 12–14 / Grades 7–9

- Explain the influence of food marketing, advertising, and promotion on their own food behaviour
- Evaluate food marketing in everyday environments
- Recognize that social media can present inaccurate nutrition information as ‘fact’

Ages 15–18 / Grades 10–12

- Evaluate media/social media reports on food and nutrition and recognize potential harms
- Describe where to find credible nutrition information
- Recognize nutrition misinformation aimed at young adults (e.g., promotion of unnecessary food products, dietary supplements)
- Describe strategies used by food companies to market food products (e.g., partnering with schools, health organizations, sports groups, charities)

Relational Competencies – Joy & Meaning Through Food

Positive Relationships with food

- Enjoy food and eating
- Be present and attentive to food and eating
- Choose food that promotes well-being and self-determination
- Recognize how to promote body image of self and others
- Understand that food is more than nutrients

Ages 4–6 / Kindergarten - Grade 1

- Enjoy trying and eating new foods
- Identify foods that they like and dislike and explain why
- Recognize that bodies come in different shapes and sizes and all bodies should be celebrated and accepted
- Understand the benefits of eating together and how food can build social connections

Ages 6–7 / Grades 2–3

- Recognize that food meets many needs (e.g., social, pleasure, nutrition/health)
- Recognize that bodies come in different shapes and sizes and all bodies should be celebrated and accepted
- Understand the benefits of eating together and how food can build social connections

Ages 8–11 / Grades 4–6

- Recognize that there can be reasons we eat besides hunger (e.g., social, emotional, rewarding behaviour)
- Recognize that healthy eating includes the enjoyment of eating a variety of foods, rather than only the nutrients they provide
- Learn skills to improve confidence in their body, and respect diverse body shapes and sizes
- Understand the benefits of eating together and how food can build social connections

Ages 12–14 / Grades 7–9

- Describe, without applying judgement, how emotions, feelings, and environment can impact food intake and body pressures
- Recognize when their body needs certain nutrients (e.g., water and carbohydrates for sports)
- Recognize how culture and media influence stereotypes and body image
- Understand the benefits of eating together and how food can build social connections

Ages 15–18 / Grades 10–12

- Recognize that overall patterns of eating are more important for well-being than foods chosen at one meal, or over one day
- Recognize ways to practice body respect, including building self-trust and being accepting of others
- Understand the benefits of eating together and how food can build social connections

Food & Culture

- Enjoy food traditions, celebrations, cultural food and family recipes
- Understand cultural influences on food and eating
- Appreciate food and ways of eating from diverse cultures

Ages 4–6 / Kindergarten - Grade 1

- Enjoy cultural foods and begin to recognize the role of culture in family meals/traditions

Ages 6–7 / Grades 2–3

- Enjoy cultural foods and begin to recognize the role of culture in family meals/traditions

Ages 8–11 / Grades 4–6

- Describe family foods/food traditions
- Recognize how cultural foods bring family/community together
- Recognize that people choose different types of food based on their social settings, availability, costs, preferences, season, mood, allergy/intolerance, religion, and occasion

Ages 12–14 / Grades 7–9

- Examine the role that culture plays in food choices
- Value own cultural foods and those of others
- Describe where to access a variety of cultural foods

Ages 15–18 / Grades 10–12

- Prepare and eat food from different cultures
- Carry on family food traditions through celebrations, cultural foods, and family recipes
- Describe the role that cultural food plays in personal and community well-being

Systems Competencies – Equity & Sustainability for Food Systems

Note: To align with [Overarching Guidance](#), we suggest focusing on a school level approach (how can the school reduce waste) as opposed to individual/household level actions.

Social Justice

- Understand food security issues at individual, community and global levels
- Discover scope of careers in food production and nutrition
- Be aware of social justice implications of food production and choices

Ages 4–6 / Kindergarten - Grade 1 & Ages 6–7 / Grades 2–3

Not an age-appropriate nutrition topic

Ages 8–11 / Grades 4–6

- Describe barriers to accessing food in their community

Ages 12–14 / Grades 7–9

- Identify strategies to increase access to healthy foods
- Describe food security and associated factors
- Describe strategies to improve food justice

Ages 15–18 / Grades 10–12

- Engage in community action to reduce food insecurity
- Discuss food sovereignty and what it means to different groups

Food & Environmental Sustainability

- Be aware of the relationship between food and environmental sustainability
- Reduce food waste

Ages 4–6 / Kindergarten - Grade 1 & Ages 6–7 / Grades 2–3

Not an age-appropriate nutrition topic

Ages 8–11 / Grades 4–6

- Identify environmental impacts of industrial food system (e.g., landfill, plastics in the ocean, climate change)
- Identify sustainable food production, distribution, purchasing, and storage methods
- Discuss strategies to reduce food waste

Ages 12–14 / Grades 7–9

- Describe sustainability within food systems
- Describe how citizens/governments can encourage food industry to follow sustainability principles including food waste/package reduction

Ages 15–18 / Grades 10–12

- Explain the concept of sustainability and how it is impacted by different food choices
- Assess the impact of food systems on the environment and local economy
- Identify threats to global food systems and opportunities to improve them (e.g., impact of COVID-19 pandemic)

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