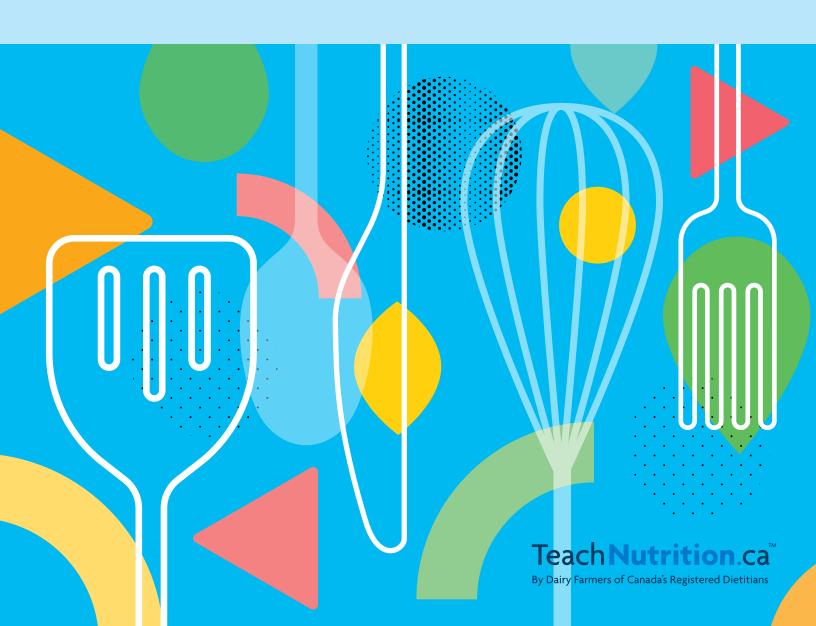
Career and Technology Foundations:

DIY Meals and Snacks Module

TEACHER GUIDE



ACKNOWLEDGEMENTS

The Alberta Teach Nutrition team of Registered Dietitians at Dairy Farmers of Canada is passionate about growing positive attitudes and behaviours around food and eating. We work alongside teachers and students during the development process to ensure our resources meet your needs. Thank you to the many Alberta teachers who invited us into your classrooms, participated in surveys and interviews, piloted materials, and offered feedback and insights. Most of all, thank you for your enthusiasm and your dedication to teaching students to enjoy cooking, experimenting, and being in the kitchen.



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MODULE CHALLENGE AND LEARNING OUTCOMES

The Do-It-Yourself Meals and Snacks module was created to help junior high Foods teachers to promote food literacy among their students and to meet Career and Technology Foundations (CTF) learning outcomes as shown in the chart below.

CHALLENGE:

How can you use *Canada's Food Guide* (CFG) to plan and prepare enjoyable meals and snacks?¹

LEARNING OUTCOMES²

CTF is exploring interests, passions, and skills while making personal connections to career possibilities.

- ✓ I explore my interests and passions while making personal connections to career possibilities.
- ▼ I follow safety requirements associated with occupational areas and related technologies.
- O I demonstrate environmental stewardship associated with occupational areas.

CTF is planning, creating, appraising, and communicating in response to challenges.

- ✓ I plan in response to challenges.
- I make decisions in response to challenges.
- O I adapt to change and unexpected events.
- ✓ I solve problems in response to challenges.
- I create products, performances, or services in response to challenges.
- I appraise the skills, knowledge, and technologies used to respond to challenges.
- I communicate my learning.

CTF is working independently and with others while exploring careers and technology.

- ✓ I determine how my actions affect my learning.
- ✓ I develop skills that support effective relationships.
- ✓ I collaborate to achieve common goals.

A CTF Abridged Challenge for this module, including curricular connections to other subject areas, is found in Appendix A.

LESSONS AT A GLANCE

Each lesson is estimated to take 90 minutes. We understand that there isn't a standard foods class structure, so please adjust each lesson's timing to suit your school context and students' needs. For example, complete each lesson in two 45-minute class periods.

LESSON 1: THE BUILDING BLOCKS OF MEALS AND SNACKS

Students will practise creating meals and snacks that feature foods from the Canada's Food Guide (CFG) Plate.3

Recipes: Honey Mustard Chicken Wraps, Macaroni and Cheese with Broccoli

LESSON 2: EXPLORING VARIETY

Students will explore how choosing a variety of vegetables and fruits, whole grain foods, and protein foods helps their body get the nutrients it needs.

Recipes: Nourish Bowl, Chili

LESSON 3: FACTORS THAT AFFECT FOOD CHOICES

Students will examine how various factors related to personal needs and available resources influence food choices.

Recipes: Design-a-Smoothie, Basic Beef Burger/Black Bean Burger

LESSON 4: SIGNATURE DISH

Students will apply knowledge of the CFG Plate, of choosing a variety of foods, and of factors that affect food choices in the development of a signature dish.

Recipes: Students' choice

OVERVIEW OF MODULE COMPONENTS

STUDENT WORKBOOK

The Student Workbook includes activity worksheets, recipes, and student assessment tools for each lesson. You can order class sets of workbooks from TeachNutrition.ca.

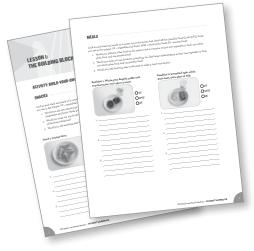
SLIDE DECKS

The slide decks are the main teaching tools for each lesson. They contain videos, background information, activity instructions, and discussion questions. Suggested speaking notes and additional information for teachers can be found in the notes section of each slide.

CANADA'S FOOD GUIDE TRANSFORMATION VIDEOS

Short Canada's Food Guide (CFG) transformation videos embedded in the slide decks introduce each lesson. You will need an internet connection to show the videos. Each video starts with a variety of ingredients on a plate that resembles the CFG Plate. The food spins and is transformed into a meal. Students can model this format in the video or photo series that will accompany their signature dish.





ACTIVITIES

We recommend completing the activities before cooking. Suggestions on how to facilitate the activities are included in the slide decks, and related worksheets are included in the Student Workbook. The section of this guide called Activity Answer Keys includes completed activity worksheets for Lessons 1-3. The following activities are part of this module:

Lesson 1: Build-Your-Own Meals and Snacks

Students are shown a series of images. They assess meals and snacks to see if they include vegetables and fruits, whole grain foods, and/or protein foods. Students then decide if a food should be added to balance the meal or snack.

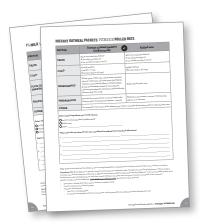
*The nutrient graphs are the 8.5 × 11" card set included with the Teacher Guide. A copy of each nutrient graph is also included in the slide deck.



Lesson 2: Food Profiles

Students review a series of nutrient graphs* for vegetables and fruits, whole grain foods, or protein foods. They record the top three nutrients each food provides and compare their findings to see how the CFG Plate can help meet nutrient needs.

Note: Percents greater than 100% are briefly addressed in this lesson. Grade 7 students are not expected to know about percents greater than 100%.



Lesson 3: This or That

Students are given a scenario in which they must choose from various foods at the grocery store. They calculate the cost of their final food selections and reflect on the factors they prioritized while making their decisions.

Lesson 4: My Signature Dish

Students create a signature meal or snack using a guided planning worksheet. While preparing the recipe, they create a CFG transformation video or photo series to accompany their signature dish.

RECIPES

Each lesson features recipes that students can customize by applying the principles of the CFG Plate, variety, and personal enjoyment. One simple and one complex recipe is suggested for each lesson and can be found in the Student Workbook; choose one or both depending on your class time and students' cooking skills. Each recipe has a corresponding video embedded in the slide decks. The videos feature a chef demonstrating key steps and techniques.

ASSESSMENT TOOLS

The assessment tools include student and teacher rubrics that incorporate CTF outcomes.

- Student Assessment Tools: A Student Cooking Rubric for Lessons 1-3 and a Student Reflection for Lesson 4 are included in the Student Workbook.
- Teacher Assessment Tools: A Teacher Cooking Rubric for Lessons 1-3 and a Teacher Signature Dish Rubric for Lesson 4 are included in Appendix B. Please photocopy them as needed.
- Additional assessment tools that cover more CTF outcomes are included in Appendix C. If you choose to use
 these tools, they will need to be photocopied for your students. We suggest choosing the ones that best suit your
 needs and the outcomes you would like to cover.

ACTIVITY ANSWER KEYS

LESSON 1: THE BUILDING BLOCKS OF MEALS AND SNACKS

ACTIVITY: BUILD-YOUR-OWN MEALS AND SNACKS

The answer key below

- · shows which food categories are included in each snack and meal (checkboxes),
- indicates whether a food category is missing (question 1), and
- offers examples of foods that could be added to ensure snacks contain foods from two food categories and meals contain foods from three food categories (question 2).

Responses for question 3 have not been included as these are open-ended and provide an opportunity for student voice and choice. Students may include foods from beyond *Canada's Food Guide* in their answer. Refer to the section How to Talk about Food with Students on page 18 for guidance on talking about all foods in a neutral way.



LESSON 1: THE BUILDING BLOCKS OF MEALS AND SNACKS

ACTIVITY: BUILD-YOUR-OWN MEALS AND SNACKS

SNACKS

Look at each meal and snack as it comes up on the screen and check off the Canada's Food Guide (CFG) foods you see in the images: VF = vegetables and fruits, WGF = whole grain foods, PF = protein foods.

- 1. Would you add any other foods to the snack so that it contains foods from at least two categories (vegetables and fruits, whole grain foods, and protein foods)?
- 2. Would you swap out any foods for something you like better, while keeping foods from at least two of the three categories?
- 3. Would you add anything else to the snack to make it taste even better?

Snack 1: Orange slices



- ♥VF ○WGF ○PF
- 1 Whole grain food OR
 Protein food
- 2 E.g., whole grain muffin, whole grain crackers OR yogurt, cheese, hardboiled egg
- 3. (Students' choice)

Snack 2: Yogurt and berries



⊘ PF

⊘VF

○ WGF

1. No, this snack contains food from two categories

<u>N/A</u>

3. (Students' choice)

MEALS

- 1. Would you add any other foods to the meal so that it contains at least one vegetable or fruit, one whole grain food, and one protein food?
- 2. Would you swap out any foods for something you like better while keeping at least one vegetable or fruit, one whole grain food, and one protein food?
- 3. Would you add anything else to the meal to make it taste even better?

Breakfast 1: Whole grain English muffin with strawberry jam, and a glass of water



- vegetable or fruit AND protein food
- E.g., banana, grapes,
 tomato slices, AND glass
 of milk, nut butter,
 yogurt
- 3. (Students' choice)

Breakfast 2: Scrambled eggs, whole grain toast, and a glass of milk



1. Vegetable or fruit

2. E.g., berries, apple slices, spinach

3. (Students' choice)

MEALS

Look at each meal and snack as it comes up on the screen and check off the Canada's Food Guide (CFG) foods you see in the images: VF = vegetables and fruits, WGF = whole grain foods, PF = protein foods.

- Would you add any other foods to the meal so that it contains at least one vegetable or fruit, one whole grain food, and one protein food?
- 2. Would you swap out any foods for something you like better while keeping at least one vegetable or fruit, one whole grain food, and one protein food?
- 3. Would you add anything else to the meal to make it taste even better?

Lunch 1: Vegetarian chili, whole grain bun, and a glass of milk



⊘VF

₩GF

⊘ PF

1 No, this meal contains food from all three food categories

2. N/A

3. (Students' choice)

Lunch 2: Grilled cheese sandwich on whole grain bread, bell peppers, dip, and a glass of water

⊘VF

⊘PF

WGF



1 No, this meal contains food from all three food categories

2. N/A

3. (Students' choice)

MEALS

Look at each meal and snack as it comes up on the screen and check off the Canada's Food Guide (CFG) foods you see in the images: VF = vegetables and fruits, WGF = whole grain foods, PF = protein foods.

- 1. Would you add any other foods to the meal so that it contains at least one vegetable or fruit, one whole grain food, and one protein food?
- 2. Would you swap out any foods for something you like better while keeping at least one vegetable or fruit, one whole grain food, and one protein food?
- 3. Would you add anything else to the meal to make it taste even better?

Supper 1: Whole grain pasta with tomato sauce, salad, cupcake, and a glass of water



♥VF ♥WGF

 \bigcirc PF

- 1. Protein food
- E.g., ground beef/ turkey, glass of milk, lentils
- 3.(Students' choice)

Supper 2: Moose stew, carrot sticks, and a glass of milk



⊘VF

 \bigcirc WGF

⊘PF

- 1. Whole grain food
- ² E.g., whole grain bannock, whole grain bun, barley
- 3.(Students' choice)

LESSON 2: EXPLORING VARIETY

ACTIVITY: FOOD PROFILES

The answer key below shows a completed student worksheet. Please note, the answer key in the slide deck uses highlighting and checkmarks on each individual nutrient graph to identify the top three nutrients and protein claims and offers a way for students to assess their own work.

LESSON 2: EXPLORING VARIETY

ACTIVITY: FOOD PROFILES

Your teacher will assign you a set of foods to examine using nutrient graphs.

- What Canada's Food Guide category do these foods belong to: vegetables and fruits, whole grain foods, or protein foods? <u>Vegetables and fruits</u>
- 2. In the chart below, list the top three nutrients in each food from highest percent daily value (% DV) to lowest % DV. If there is a tie, write in all the nutrients at that % level. Mark the protein claim for each food as well.

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Applesauce	1. Vitamin C	14%	Excellent source of protein
	2. Fibre	6%	Good source of protein
	3 Carbohydrate	5%	Low source of protein
Banana	^{1.} Vitamin B6	25%	Excellent source of protein
	2. Vitamin C	11%	Good source of protein
	Carbohydrate / Potassium	9%	⊘ Low source of protein
Broccoli	¹ Vitamin C	46%	Excellent source of protein
	2. Folate	7%	Good source of protein
	3 Vitamin B6	5%	Low source of protein

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Carrots	1. Vitamin A	113%	Excellent source of protein
	2. Fibre	7%	Good source of protein
	3 Vitamin B6	6%	Low source of protein
Spinach	¹ Vitamin A	15%	C Excellent source of protein
· ·	2. Folate	15%	Good source of protein
	3 Vitamin C	10%	Low source of protein
Strawberries	¹ Vitamin C	57%	C Excellent source of protein
in water i res	2. Fibre	8%	Good source of protein
	3. Folate	5%	Low source of protein

3. Are the top three nutrients for each food different?	⊘ Yes	○ No
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4. Why do you think it is important to eat a variety of vegetables and fruits, whole grain foods, and protein foods?

The amount and type of nutrients each food provides is different. By eating a variety of foods, instead of the same few all the time, we are more likely to get the 50+ vitamins, minerals, and other nutrients our bodies need for daily living.

LESSON 2: EXPLORING VARIETY

ACTIVITY: FOOD PROFILES

Your teacher will assign you a set of foods to examine using nutrient graphs.

- What Canada's Food Guide category do these foods belong to: vegetables and fruits, whole grain foods, or protein foods? Whole grain foods
- 2. In the chart below, list the top three nutrients in each food from highest percent daily value (% DV) to lowest % DV. If there is a tie, write in all the nutrients at that % level. Mark the protein claim for each food as well.

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Brown rice	1. Magnesium	11%	Excellent source of protein
	Thiamin / Niacin / Litamin B6	9%	Good source of protein
	3.		⊘ Low source of protein
Oatmeal	1. Thiamin	17%	Excellent source of protein
	2. Fibre	14%	Good source of protein
	3. Magnesium	12%	Low source of protein
Toasted 0's	1. Iron	28%	Excellent source of protein
Cereal	2. Folate	15%	Good source of protein
	3 Fibre	13%	Low source of protein

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Whole Grain Bread	1 Fibre	8%	Excellent source of protein
breac	2. Thiamin	7%	Good source of protein
	3 Niacin	7%	Low source of protein
Whole Grain	¹ Fibre	10%	Excellent source of protein
Pita	2. Thiamin	9%	Good source of protein
	3. Carbohydrate / Niacin	6%	Low source of protein
Whole Grain	1 Fibre	10%	C Excellent source of protein
Spaghetti	2. Carbohydrate	7%	Good source of protein
	3. Thiamin	7%	Low source of protein

3. Are the top three nutrients for each food different?	⊘ Yes	○ No
---------------------------------------------------------	--------------	------

4. Why do you think it is important to eat a variety of vegetables and fruits, whole grain foods, and protein foods?

The amount and type of nutrients each food provides is different. By eating a variety of foods, instead of the same few all the time, we are more likely to get the 50+ vitamins, minerals, and other nutrients our bodies need for daily living.

LESSON 2: EXPLORING VARIETY

ACTIVITY: FOOD PROFILES

Your teacher will assign you a set of foods to examine using nutrient graphs.

- 1. What Canada's Food Guide category do these foods belong to: vegetables and fruits, whole grain foods, or protein foods? **Protein foods**
- 2. In the chart below, list the top three nutrients in each food from highest percent daily value (% DV) to lowest % DV. If there is a tie, write in all the nutrients at that % level. Mark the protein claim for each food as well.

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Almonds	1. Riboflavin	32%	Excellent source of protein
	2. Fat	28%	Good source of protein
	3. Magnesium	23%	Low source of protein
Beef	¹. Vitamin B12	76%	Excellent source of protein
	^{2.} Zinc	59%	Good source of protein
	3. Niacin	30%	O Low source of protein
Eggs	¹ Vitamin B12	83%	Excellent source of protein
	2. Riboflavin	40%	Good source of protein
	^{3.} Vitamin A	20%	O Low source of protein

FOOD	TOP THREE NUTRIENTS	% DV	PROTEIN CLAIM
Milk, 1% M.F.	1. Vitamin B12	50%	Excellent source of protein
	2. Riboflavin	37%	Good source of protein
	3 Calcium	25%	O Low source of protein
White Beans	1. Fibre	36%	Excellent source of protein
	2. Folate	27%	Good source of protein
	3. Iron	27%	Low source of protein
Plain Yogurt,	1. Riboflavin	31%	C Excellent source of protein
0.5-1.9% M.F.	^{2.} Calcium	21%	Good source of protein
	3. Vitamin B12	13%	Low source of protein

3. Are the top three nutrients for each food different?	⊘ Yes	○ No
---------------------------------------------------------	--------------	------

4. Why do you think it is important to eat a variety of vegetables and fruits, whole grain foods, and protein foods?

The amount and type of nutrients each food provides is different. By eating a variety of foods, instead of the same few all the time, we are more likely to get the 50+ vitamins, minerals, and other nutrients our bodies need for daily living.

LESSON 3

ACTIVITY: THIS OR THAT

An answer key has not been included for this activity because it contains open-ended questions and provides an opportunity for student voice and choice. There are no right or wrong answers; the purpose of the activity is to think about some of the reasons we make food choices.

For question 1, all students should remain within the budget of \$15 if they made selections from the suggested foods.

For question 2, consider having a class discussion about the factors mentioned.

For question 3, students should select a factor not mentioned in the activity that may influence their food decisions (e.g. food traditions, food skills, accessibility).

For question 4, probe students about their responses to ensure at least three food categories are represented. If they chose almond beverage, they will need to add a protein food.

For question 5, students may include foods from beyond *Canada's Food Guide*. Refer to the section How to Talk about Food with Students on page 18 for guidance on talking about all foods in a neutral way.

LESSON 4

ACTIVITY: MY SIGNATURE DISH

An answer key has not been included for this activity because it is the culminating activity that provides an opportunity for student voice and choice.



HOW TO TALK ABOUT FOOD WITH STUDENTS

Teachers know the value of creating a safe and respectful classroom environment. Consider how this principle relates to the messages you share about food. You can help students feel relaxed and supported by talking about all foods in a neutral way rather than as "good" or "bad." Neutral food conversations mean there is no judgement of the food or the person eating the food.

ROLES FOODS PLAY IN EATING AND LIFE

Food is more than nutrients. But often, foods that do not fit neatly into the categories in *Canada's Food Guide* are considered unessential or "junk" foods. This framing is inaccurate and can be harmful to students' relationship with food. What would curry be without turmeric or chilis? Salad without salad dressing? Consider how a chewy cookie or crispy chips can add flavour and texture to a meal. None of these ingredients or foods belong to a category, yet they all have value.

Health Canada does not support labelling foods "healthy" or "unhealthy." Calling foods "unhealthy" or "junk" can be harmful to a child's relationship with food and their relationships with caregivers who provide food.

Making space for a variety of foods contributes to a positive relationship with food and recognizes that factors such as taste, culture, and food traditions play a role in students' food choices. This view is communicated in CFG and in Canada's Dietary Guidelines through advice on enjoying food.^{1,5}

FACTORS THAT INFLUENCE FOOD CHOICES

The aim of DIY Meals and Snacks is to support students in making food decisions that respect the reality of their needs and resources. Food choices can be based on taste, hunger, food traditions, and health. The ability of students and caregivers to meet these needs is tied to access to resources such as money, time, space, skills, equipment, and support.

Many factors influence what foods students eat at school. When concerns about a student's food choices come up, pause to consider what the underlying cause for the concern might be rather than commenting on the healthfulness of food items. For example, family stressors such as a medical condition may affect a caregiver's capacity to shop for groceries or prepare meals. Like you, caregivers are trying their best to support children. You can help families by fostering a safe food environment at school and encouraging experiential learning with nutrition in the classroom. If you suspect a family does not have enough food, we recommend speaking to your school guidance counsellor to help facilitate a conversation with the family about potential supports. This conversation is appropriate for adults; students should not be involved.

REDUCING RISK OF HARM

While this Foods module includes discussion about nutrients and the benefits of eating a variety of foods, we encourage neutral food exposure and conversation about all foods to preserve and foster a positive relationship with food. Being mindful of how health messages are delivered and avoiding techniques such as food tracking and food monitoring are recommended to minimize the risk of disordered eating behaviour that is associated with these practices.⁶

FAQs

WHAT DO WE NEED TO KNOW ABOUT CANADA'S FOOD GUIDE (CFG)?

Health Canada developed CFG to convey the main concepts from Canada's Dietary Guidelines. 1,5

THE BENEFIT OF VARIETY

No one food or type of food can provide us with everything we need. When children and youth eat a variety of foods, they are more likely to get the nutrition their growing bodies and minds need. That's why it's important to choose foods from all food categories and to choose different foods within each category.

GUIDING CONCEPTS

Foods from each category work together, like pieces of a puzzle, to provide important nutrients. The table below provides more detail on the nutrition concepts embedded in each category.

Canada's Food Guide Categories

Nutrition Concepts^{5,7}



Different types of vegetables and fruits provide unique nutrients. These foods come in many forms, including canned, fresh, and frozen. Students are more likely to get the nutrients they need when they include different types of vegetables and fruits at meals.



Whole grain and whole wheat foods include all parts of the grain, which provides unique nutrients. These foods come in many varieties, including breads, cereals, noodles, and rice. Students are more likely to get the nutrients they need when they include different types of whole grain and whole wheat foods at meals.



Different types of protein foods, both plant- and animal-based, provide unique nutrients. These foods come in many varieties, including beans, peas, lentils, seeds, meat, poultry, fish, eggs, and dairy products. Students are more likely to get the nutrients they need when they include different types of protein foods at meals.

SERVING SIZES

CFG no longer focuses on amounts of food or serving sizes. Instead, it promotes the benefits of a good relationship with food and enjoyable eating experiences. DIY Meals and Snacks encourages students to include foods they like to eat from each category in CFG. This framework helps students and their caregivers to make decisions about the amount of food needed to satisfy growth and appetite.

WHAT IS FOOD LITERACY?

Food literacy is learning about and engaging with the many roles of food for ourselves, others, and our world. We build food literacy when we explore and develop our understanding and skills around:

- · how our food grows, is produced, and is made available,
- how to plan, obtain, store, prepare, and eat food,
- how the foods we eat reflect our experience, needs, and resources, and
- our relationship between food, culture, and identity.

HOW WERE THE RECIPES SELECTED?

CFG identifies three categories – vegetables and fruits, whole grain foods, and protein foods – as foundational to eating well. Within this context, the National Nutritious Food Basket (NNFB) informed the foods that were selected. The NNFB names affordable, nutritious foods commonly eaten in Canada and is meant to support CFG. Nutritious foods that are more costly or more challenging to find were not included as core ingredients in the recipes and are listed only as options. The recipes included in this module have been thoughtfully reviewed and tested by our team.

HOW DID YOU ENSURE FOODS USED IN RECIPES WOULD BE FAMILIAR TO STUDENTS?

While we've done our best to use a wide variety of foods in the recipes, we recognize that we can't include all favourite foods, foods from all cultures, or all foods students may eat at home. That's why many of the recipes offer the opportunity to customize some of the ingredients. We developed the Signature Dish activity, in which students plan a meal or snack using foods and ingredients of their choice, to ensure familiar foods are included.

FOODS FROM BEYOND CANADA'S FOOD GUIDE

Examples of foods that enhance and complement vegetables and fruits, whole grain foods, and protein foods, such as spices, are included in the recipes. These ingredients offer the opportunity to highlight different roles food can play and to show how food can be enjoyed without judgement.

HOW DID YOU CHOOSE AND CREATE THE STUDENT ACTIVITIES?

Considering when to introduce new concepts and offering breaks to practise and absorb information helps students apply their food and nutrition knowledge to real-world experiences. Grades 7–9 are a time to shift students' mindsets to critically assess food and nutrition messages. Developmentally-appropriate learning that includes translating food categorization to hands-on skill development works best for junior high students – for example, connecting CFG to food preferences when planning meals and snacks.

Build-Your-Own Meals and Snacks

The DIY Meals and Snacks module encourages increasing variety by recommending foods from three food categories at each meal and foods from two food categories at each snack. The DIY Meals and Snacks module is an adaptation of the CFG plate and is designed to offer a starting point for students to personalize snacks and meals based on foods they have available and like to eat. We also recognize there can be multiple challenges or barriers to following the advice in CFG, including factors such as access, income, and family stressors; as such, this module is meant to support progress, not perfection.

Food Profiles

We put our nutrition (and math) skills to work to create the nutrient graphs so students could have a visual reference to compare foods. For readability, the nutrient graphs use a 0-50% scale. We used the Canadian Nutrient File and Health Canada's daily value reference tables for macro- and micronutrients to determine the % daily value for each nutrient. To calculate the protein rating for each food we used Canadian Food Inspection Agency resources, which we cross-referenced with the requirements for protein claims. Due to the complexity of this process, we do not recommend that students attempt to create their own nutrient graphs as an extension activity. However, we hope this demonstrates that Registered Dietitians work to translate the (sometimes) complex science of nutrition into fun activities for your students.

This or That?

This activity reflects the grocery store experience and highlights how a single food decision is actually composed of a series of decisions that reflect needs, resources, and values. We standardized the food cost calculations for easy comparison, but it may not always be this straightforward to compare the unit price of products in the store. Footnotes related to commonly asked food-related questions are included in each part of the activity to support decision-making.

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APPENDIX A: CTF ABRIDGED CHALLENGE

TITLE	DIY Meals and Snacks	GRADE	7-9	
CHALLENGE QUESTION	to plan and propaga opiograble mode	ESTIMATED CHALLENGE TIME	4 × 90 minutes	
All outcomes in the <u>CTF Program of Studies</u> should be addressed in each CTF course.				

CHALLENGE DESCRIPTION Students will explore Canada's Food Guide (CFG) to plan and prepare meals and snacks using a variety of foods. They will practise creating meals and snacks that feature foods from the CFG Plate, explore how choosing a variety of foods helps their body get the nutrients it needs, examine how various factors related to personal needs and available resources influence food choices, and demonstrate their knowledge while creating a signature dish. SCENARIO Explore Canada's Food Guide by cooking and tasting delicious food. Discover the building blocks of meals and snacks, why variety matters, and factors that affect food choices. You will practise transforming recipes to include foods that suit your tastes and preferences. Plus, you get to demonstrate your learning by creating a signature dish with an accompanying video or photo series. Get ready to eat as you learn!

OCCUPATIONAL	BUSINESS		
AREAS (Select at least	Computing Science Enterprise & Innovation	○ Financial Management ○ Information Processing	Management & Marketing Networking
two to explore.)	COMMUNICATION		
	Communication Technology	O Design Studies	○ Fashion Studies
CTF Occupational	HUMAN SERVICES		
Areas and Possible Occupations	Community Care ServicesCosmetologyEsthetics	✓ Foods○ Health Care Services✓ Human & Social Services	Legal StudiesRecreation LeadershipTourism
	RESOURCES		
	Agriculture Environmental Stewardship	○ Forestry ○ Primary Resources	○Wildlife
	TECHNOLOGY		
	○ Construction ○ Electro-Technologies	Fabrication Logistics	○ Mechanics

LINKS BETWEEN OCCUPATIONAL AREAS AND THIS CHALLENGE

Foods

Students demonstrate the skills, knowledge, and proper use of technologies associated with foods as they work with CFG to understand food choices, nutrition, and wellness to plan and prepare their signature dish.

Communication Technology

Students explore communication technology as they work with elements and principles of design to develop a plan for presenting their signature dish.

Human and Social Services

Students explore human and social services as they work with components of nutrition and wellness, and communication.

SKILLS, KNOWLEDGE, FAMOUTECHNOLOGIES RELATED TO THE OCCUPATIONAL AREAS

Foods

Examine the role of food, looking beyond consumption to production, visual appreciation, nutrition, meal planning, economics, and preparation, and learn the various skills in the cook trade.

- · Food safety and sanitation.
- Planning, preparing, and evaluating basic food recipes.
- · Interrelationships among food choices, traditional foods, nutrients, and wellness.
- · Nutrition information on food labels or other sources.
- · Plating and presentation techniques.
- Altering and varying recipes according to instructions and personal preferences (e.g., vegetarian eating pattern).

Communication Technology

Discover and develop skills related to technologies used to design, construct, and relay a message for the purpose of connecting, informing, entertaining, or selling products.

- · The impact of elements of design on visual message, such as colour, texture, form, light, and space.
- · The impact of principles of design, such as balance, emphasis, proportion, contrast, and proximity.
- · The impact of media on society.
- · Types of media used to communicate ideas and information.
- · Skills required for preparing and delivering presentations using media of choice.

Human and Social Services

Learn about occupations related to wellness, human development, family support, and professional standards and ethics.

- · Food choices and their effects on health and wellness based on information from CFG.
- · Nutrition information.
- · Nutrition awareness, including balanced meals following CFG.
- · Cultural, psychological, physical, and social factors that influence food choices.
- · Creative and attractive food presentation.
- · The benefits and application of appropriate hand-washing techniques.
- · Behaviours and skills that contribute to the effective functioning and goals of a team.
- Verbal and nonverbal components of effective communication:
 - Eve contact
 - Facial expressions
 - · Characteristics of voice, including tone and clarity
 - · Pace of speech
 - Physical proximity
 - Gestures

SAFETY AND/OR ENVIRONMENTAL CONSIDERATIONS

Safety and/or environmental considerations identified for this challenge:

- Select and safely use available tools and equipment when measuring, preparing, mixing, cooking, and serving.
- Dispose of waste materials in an environmentally safe manner.
- Use all materials, products, and implements appropriately.
- · Maintain a clean, sanitary, and safe work area.
- Apply food storage and cooking precautions for safe food handling related to bacteria, viruses, and molds.
- · Clean, sanitize, and store materials, products, and implements correctly.
- Explain the benefits of hand washing and apply effective and appropriate hand-washing techniques.
- Describe basic safety precautions for the prevention of infectious diseases and of blood-borne pathogens (e.g., minor cuts and blood spills).
- Know the proper procedure to follow in case of an emergency.
- Know the health and safety issues for cooks and the preventive measures that should be adopted.
- · Use personal protective equipment.
- · Identify and correctly interpret WHMIS symbols.
- · Complete a hazards assessment that identifies proper prevention of cut, slip, and trip injuries.
- Ensure safety of equipment, software, supplies, and personal work.
- Prevent work-related musculoskeletal disorders associated with performing repetitive manual tasks.
- · Identify and minimize hazards associated with using computers.
- · Avoid improper ergonomic situations (e.g., working in awkward positions).
- Know how to relax sore body parts by using proper stretching exercises.

Remember to follow your school's and/or district's safety and privacy of information requirements at all times.

FACILITY TYPE

Kitchen and classroom

EQUIPMENT AND/ OR CONSUMABLES

Computer and projection device.

DIY Meals and Snacks materials: Teacher Guide, Student Workbooks, slide decks, and nutrient graphs.

Kitchen equipment and recipe ingredients.



SUBJECTS POSSIBLE INTERDISCIPLINARY ✓ Health and Life Skills *⊗* English Language Arts Religious Education CONNECTIONS O Fine Arts ✓ Mathematics Science Outdoor Education French Language Arts O Social Studies OFrench Second Language O Physical Education Other _ LEARNING OUTCOMES **GRADE 7** English Language Arts Use talk, writing, and representing to examine, clarify, and assess understanding of ideas, information, and experiences. Select and focus relevant ideas from personal experiences and prior knowledge to understand new ideas and information. Discuss how techniques such as colour, shape, composition, suspense, foreshadowing, and flashback are used to communicate meaning and enhance effects in oral, print, and other media texts. Explain how sound and image work together to create effects in media texts. Create a variety of oral, print, and other media texts to explore ideas related to particular topics or themes. Plan and organize data collection based on instructions, explanations, and pre-established parameters. Organize ideas and information by selecting or developing categories appropriate to a particular topic and purpose. Produce oral, print, and other media texts with well-developed and well-linked ideas and sections. Reflect on ideas and information to form own opinions with evidence to support them. Connect new information with prior knowledge to build new understanding. Communicate ideas and information in a variety of oral, print, and other media texts, such as reports, autobiographies, brochures, and video presentations. Use appropriate visual, print, and/or other media effectively to inform and engage the audience. Identify particular content features that enhance the effectiveness of published oral, print, and

Health and Life Skills

of others.

other media texts.

provide emphasis, or express emotion.

ideas, and clarify understanding.

• Compare personal health choices to standards for health; e.g., physical activity, nutrition, relaxation, sleep, or reflection.

Experiment with figurative language, illustrations, and video effects to create visual images,

Distinguish between formal and informal conventions of oral and written language, and use

Identify and use explicit techniques to arouse and maintain interest and to convince the audience. Ask questions or make comments that elicit additional information, probe different aspects of

Contribute collaboratively in group situations by asking questions and building on the ideas

each appropriately, depending on the context, audience, and purpose.

- Relate the factors that influence individual food choices to nutritional needs of adolescents;
 e.g., finances, media, peer pressure, hunger, body image, or activity.
- · Develop group goal-setting skills; e.g., collaboration.

Mathematics

Collect, display, and analyze data to solve problems.

GRADE 8

English Language Arts

- Use strategies to supplement and extend prior knowledge and experiences when interpreting new ideas and information.
- Identify and use visual and textual cues in reference materials, such as catalogues, databases, websites, thesauri, and writers' handbooks, to access information effectively and efficiently.
- Identify and use structural features of a variety of oral, print, and other media texts, such as
 newspapers, magazines, instruction booklets, advertisements, and schedules, encountered in
 everyday life to access ideas and information and to read with purpose.
- Discuss how techniques, such as word choice, balance, camera angles, line, and framing, communicate meaning and enhance effects in oral, print, and other media texts.
- Summarize the content of media texts, and discuss the choices made in planning and producing them.
- Choose forms or genres of oral, print, or other media texts for the particular effects they will have on audiences and purposes.
- · Choose a plan to access, gather, and record information, according to self-selected parameters.
- · Incorporate new information with prior knowledge and experiences to develop new understanding.
- Communicate ideas and information in a variety of oral, print, and other media texts, such as interviews, mini-lessons, and documentaries.
- · Integrate appropriate visual, print, and/or other media to inform and engage the audience.
- Choose an effective format for documents, depending on the content, audience, and purpose.
- Experiment with figurative language, voice, sentence patterns, camera angle, and music to create an impression or mood.
- Plan and facilitate small-group and short whole-class presentations to share information.
- Present information to achieve a particular purpose and to appeal to interest and background knowledge of reader or audience.
- Plan and shape presentations to achieve particular purposes or effects and use feedback from rehearsals to make modifications.
- Propose ideas or advocate points of view that recognize the ideas of others and advance the thinking of the group.

Health and Life Skills

• Evaluate personal food choices and identify strategies to maintain optimal nutrition when eating away from home; e.g., eating healthy fast foods.

Mathematics

· Solve problems that involve rates, ratios, and proportional reasoning.

GRADE 9

English Language Arts

- Evaluate the effectiveness of different types of media texts for presenting ideas and information.
- Organize ideas and information by developing and selecting appropriate categories and organizational structures.
- Choose specific vocabulary and use conventions accurately and effectively to enhance credibility.
- · Reflect on new understanding and its value to self and others.
- Integrate appropriate visual, print, and/or other media to reinforce overall impression or point of view and engage the audience.
- Share sample treatments of a topic with peers and ask for feedback on the relative effectiveness of each.
- · Work collaboratively to make appropriate revisions based on feedback provided by peers.
- Select, organize, and present information to appeal to the interests and background knowledge of various readers or audiences.
- Integrate a variety of media and display techniques, as appropriate, to enhance the appeal, accuracy, and persuasiveness of presentations.
- Contribute to group efforts to reach consensus or conclusions by engaging in dialogue to understand the ideas and viewpoints of others.

Health and Life Skills

- Evaluate group effectiveness and generate strategies to improve group effectiveness; e.g., develop skills in facilitating discussions or meetings.
- Develop strategies that promote healthy nutritional choices for self and others;
 e.g., adopt goals that reflect healthy eating, encourage the placement of nutritious food in vending machines.

Mathematics

· Collect, display, and analyze data to solve problems.

ASSESSMENTS: These should include opportunities for students to reflect on and communicate their learning. It is the teacher's professional decision as to what CTF learning outcomes are used and how they are assessed during a lesson.

Formative Assessments	Summative Assessments
Student Assessment Tools:	Student Assessment Tools:
Student Cooking Rubric: Lessons 1–3 (Student Workbook p. 3)	Student Reflection: Lesson 4 (Student Workbook p. 31)
	Teacher Assessment Tools:
Teacher Assessment Tools:	Teacher Signature Dish Rubric: Lesson 4 (Teacher Guide p. 35)
Teacher Cooking Rubric: Lessons 1-3 (Teacher Guide p. 34)	
	Optional:
Optional: (Teacher Guide p. 37–39)	Student Reflection: Signature Dish
Student Reflection: Recipe	(Teacher Guide p. 40–41)
Student Reflection: Relationships	
Student Reflection: Collaboration and Decisions	

CHALLENGE PLAN AT A GLANCE:

Provide a general outline that describes how the challenge unfolds.

LESSON 1: THE BUILDI	NG BLOCKS OF MEALS AND SNACKS	Time Allotted: 2 × 45 minutes		
OBJECTIVE	 Categorize foods according to the CFG Plate. Plan meals and snacks following Health Canada's recommendations. Identify the impact of personal preferences and enjoyment in meals and snacks. 			
CTF LEARNING OUTCOMES	 I explore my interests and passions while making personal connections to career possibilities. I make decisions in response to challenges I solve problems in response to challenges. I create products, performances, or services in response to challenges. I communicate my learning. 			
ASSESSMENT	Student Assessment Tool: Student Cooking Rubric: Lessons 1–3 (Student Workbook p. Teacher Assessment Tool: Teacher Cooking Rubric: Lessons 1–3 (Teacher Guide p. 34) Optional: (Teacher Guide p. 37–39) Student Reflection: Recipe Student Reflection: Relationships Student Reflection: Collaboration and Decisions	3)		
PROGRAM SUPPORTS/ RESOURCES	Activity: Build-Your-Own Meals and Snacks (Student Workbook p. 4) Recipes: Honey Mustard Chicken Wraps (Student Workbook p. 8) Macaroni and Cheese with Broccoli (Student Workbook p. 10) Note: A list of all kitchen equipment required is provided with e			
NOTES				

LESSON 2: EXPLORING	S VARIETY	Time Allotted: 2 × 45 minutes		
OBJECTIVE	 Identify the role of macronutrients and micronutrients in the body. Understand how to use Health Canada's Percent Daily Value. Interpret nutrient graphs for a range of foods from the CFG Plate. Explain the rationale for choosing a variety of foods to promote health. 			
CTF LEARNING OUTCOMES	 I explore my interests and passions while making personal connections to career possibilities. I develop skills that support effective relationships. I collaborate to achieve common goals. 			
ASSESSMENT	Student Assessment Tool: Student Cooking Rubric: Lessons 1–3 (Student Workbook p. Teacher Assessment Tool: Teacher Cooking Rubric: Lessons 1–3 (Teacher Guide p. 34) Optional: (Teacher Guide p. 37–39) Student Reflection: Recipe Student Reflection: Relationships Student Reflection: Collaboration and Decisions	3)		
PROGRAM SUPPORTS/ RESOURCES	Activity: Exploring Variety (Student Workbook p. 12) Recipes: Nourish Bowl (Student Workbook p. 14) Chili (Student Workbook p. 16) Note: A list of all kitchen equipment required is provided with e	each recipe.		
NOTES				

LESSON 3: FACTORS THAT AFFECT FOOD CHOICES Time Allotted: 2 × 45 minutes					
OBJECTIVE	 Explore factors that affect food choices. Practise staying within a budget. Compare options and make decisions. Provide rationale for decisions. 				
CTF LEARNING OUTCOMES	 I explore my interests and passions while making personal connections to career possibilities. I use occupational area skills, knowledge, and technologies. I plan in response to challenges. I create products, performances, or services in response to challenges. I communicate my learning. 				
ASSESSMENT	Student Assessment Tool: Student Cooking Rubric: Lessons 1–3 (Student Workbook p. 3) Teacher Assessment Tool: Teacher Cooking Rubric: Lessons 1–3 (Teacher Guide p. 34) Optional: (Teacher Guide p. 37–39) Student Reflection: Recipe Student Reflection: Relationships Student Reflection: Collaboration and Decisions				
PROGRAM SUPPORTS/ RESOURCES	Activity: • Factors That Affect Food Choices (Student Workbook p. 18) Recipes: • Design-a-Smoothie (Student Workbook p. 23) • Basic Beef Burger (Student Workbook p. 24) • Black Bean Burger (Student Workbook p. 26) Note: A list of all kitchen equipment required is provided with each recipe.				
NOTES					

LESSON 4: SIGNATURE	DISH	Time Allotted: 2 × 45 minutes		
OBJECTIVE	 Apply knowledge of the CFG Plate, of choosing a variety of foods, and of factors that affect food choices in the development of a signature dish. Apply recipe planning and preparation skills. Create a visually appealing video or photo series to showcase the signature dish. Appraise learning through self-reflection. 			
CTF LEARNING OUTCOMES	making personal connections to career possibilities. I use occupational area skills, knowledge, and technologies. I follow safety requirements associated with occupational areas and related technologies. I plan in response to challenges. in resp techno I appra techno I determoccupational areas and related technologies. I developments	e products, performances, or services onse to challenges. ise the skills, knowledge, and logies used to respond to challenges. nunicate my learning. mine how my actions affect learning. op skills that support effective aships.		
ASSESSMENT	Student Assessment Tool: • Student Reflection: Lesson 4 (Student Workbook p. 28) Teacher Assessment Tool: • Teacher Signature Dish Rubric: Lesson 4 (Teacher Guide p. 35) Optional: • Student Reflection: Signature Dish Version 2 (Teacher Guide p. 40)			
PROGRAM SUPPORTS/ RESOURCES	Activity: • My Signature Dish (Student Workbook p. 28) Note: A list of equipment and ingredients will need to be created depending on the recipe chosen.			
NOTES				

APPENDIX B: ASSESSMENT TOOLS

TEACHER COOKING RUBRIC: LESSONS 1-3

LEARNING OUTCOMES	 I follow safety requirements associated with occupational areas and related technologies. I use occupational area skills, knowledge, and technologies. I create products, performances, or services in response to challenges. I determine how my actions affect learning. I collaborate to achieve common goals. I appraise the skills, knowledge, and technologies used to respond to challenges. I develop skills that support effective relationships.
LESSON AND RECIPE:	DATE:

Use this rubric in Lessons 1–3 to assess working in the kitchen.

The suggested rating scale is 1 – Learning; 2 – Satisfactory; 3 – Proficient; 4 – Excellent

Student	Collaboration	Safety and Cleanliness	Time Management	Recipe Success	Overall	Comments

TEACHER SIGNATURE DISH RUBRIC: LESSON 4

NAME:	RECIPE:	DATE:
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Use these criteria to assess the Signature Dish.

The suggested rating scale is 1 – Learning; 2 – Satisfactory; 3 – Proficient; 4 – Excellent

CATEGORY	SCORE	OBSERVATIONS
Canada's Food Guide	1 2 3 4	
Recipe success	1 2 3 4	
Creativity	1 2 3 4	
Presentation	1 2 3 4	
Planning	1 2 3 4	
Reflection	1 2 3 4	TOTAL /24

Canada's Food Guide	 Does the recipe contain vegetables and fruits, whole grain foods, and protein foods? Does the recipe showcase variety?
Recipe success	Consider sensory properties such as appearance, taste, texture, and temperature.
Creativity	• Is the dish creative (showing something new) or is the entry a modernized traditional dish?
Presentation	Is the recipe video or set of photographs logical, complete, and appealing?
Planning	 Did the student complete the worksheet independently? Was the plan logical? Was the recipe well-formatted?
Reflection	 Did the student complete the worksheet independently? Do responses reflect an understanding of the learning occurring through the challenge? Can the student answer questions?

APPENDIX C: OPTIONAL ASSESSMENT TOOLS

STUDENT REFLECTION: RECIPE

LEARNING • I create products, performances • I communicate my learning.	, or services in response to challenges.
NAME:	DATE:
1 My creation is	2 My favourite part of it is
While cooking, I know I am capable of	Ways to be more successful at making this recipe:
As I created my recipe, the most interesting step was Why?	My teacher thinks I could improve the recipe by

STUDENT REFLECTION: RELATIONSHIPS

	LEARNING OUTCOMES · I develo	p skills that support effective rel	ationships.	
	NAME:			DATE:
	re of skills and taking a range	worked with other people. Succe of actions. These actions and sl ls that you feel support effectiv	kills are used to supp	
	Interacting	Accepting/providi	ng feedback	Respecting
		Celebrating differe	nces	ACCEPTING
	BEING EMPATHETIC	3	Trustir	ng Adapting
	Collaborating	Taking on differ	ent roles	
	•	Being honest	Listening	COMMUNICATING
	Compromising	Working t	oward win-wir	outcomes
3	What action or skill did you What did you do to practis	u use to support effective relati	onships as you com	pleted the activity?
4	What could you do to stren	gthen this action or skill?		

STUDENT REFLECTION: COLLABORATION AND DECISIONS

	chieve common goals. in response to challenges.
NAME:	DATE:
I can explain the rationale for my decisions to others. For example, I	My collaboration with others worked because I
I could collaborate be	etter with others if I

STUDENT REFLECTION: SIGNATURE DISH

LEARNING OUTCOMES	 I determine how my actions affect my learning. I communicate my learning. I appraise the skills, knowledge, and technologies used to respond to challenges.
NAME:	DATE:

Read each statement. Place an X to show whether you agree or disagree with the statement. Use an example to explain.

STATEMENT	AGREE	DISAGREE	EXPLANATION
In preparing my presentation, I did things that helped me learn.			
I helped others learn before or during our presentation.			
3. My actions support the learning that is happening around me.			
4. I have evidence that my understanding of planning meals/snacks, incorporating variety, and considering other factors that affect food choice has grown.			

technologies. Evaluate a skill, a technology, or knowledge that you used while making videos or taking photos. Complete the following boxes. Skill or technology used while making videos or taking photos: What went well? What could be improved? How might you improve it? What will you do with the knowledge you acquired during this process?

5. While filming or taking pictures of your signature dish, you used occupational area skills, knowledge, or

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