



STAGE 2

FOOD AND OUR BODY

Students will learn how grains support a healthy diet and help keep the circulatory and digestive systems healthy.

Lesson 2 • Canada's Food Guide and Food Labels

Overview

This lesson is packed with information and activities related to Canada's Food Guide, whole grains and nutrition labels.

Learning Goals

Students will learn:

- About the difference between the nutrition facts table and the ingredients list on packaged foods..
 - How knowing about our food can help us make good decisions.
 - About dietary fibre and how it relates to the digestive system.
 - How to locate ingredients and fat content on labels and think critically about a label.
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Materials Needed

- [Stage 2 Lesson 2 Teaching Slides](#)
- [Student Resource Packet](#) (all lessons, printable)
- [STEMterprise Deliverables Tracker](#)
- Nutrition labels (or chromebooks)
- [Food Label Scavenger Hunt](#)
- For more on nutrition labels and ingredients, see: [Reading Labels Means](#)

[Healthy Food Choices](#)

- Classroom seed kits from Good in Every Grain (optional)
 - Microbits for [Coding Connections Slides](#) (optional)
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Teachers' Notes

As you discuss foods, be mindful that there are reasons families choose refined over whole grains, such as chronic conditions, culture, convenience, or price. Some families prefer white bread, which can be part of a healthy diet, and it's important that we avoid leading students to judge others for their lunches, etc.



Idea! In our [Healthy Respectful Lunchroom](#) resource, dietitian Gwen engages students about what's in their lunchboxes, what others bring, being open to different or unfamiliar foods and more. It includes presentations, worksheets and a discussion guide.

Time Frame: 60 min

This lesson is designed to take approximately 60 minutes. There are optional extensions you can add.

Career Connection

There is an optional Career Connection at the end of this and all lesson slides and the [Career Connections Slides](#) can be found at this link. Career: Nutrition Specialist and Food Scientist.

Curriculum Expectations

Science & Technology: Life Systems

B1.3 Explain how food literacy can support decisions

Health

D2.1 explain how to use nutrition fact table and ingredient lists

Transferable Skills:

- Collaboration
- Creativity

Agriculture/Agri-Food:

- Grains are included in Canada's Food Guide as an important part of a healthy diet. In fact, they are an important staple around the world.
 - The guide recommends that grains make up 25% of your diet
 - Grains contain several essential vitamins and minerals, such as B vitamins, iron, zinc and magnesium.
 - Grains also improve digestion, give your body energy, and help your brain perform at its best.
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STEMterprise References for Educators

STEMterprise Webpage: <https://goodineverygrain.ca/ontario-farming-stemterprise/>

Video Links

- [Ontario Farming STEMterprise: Grade 5 Pizza Shop Business](#)
- [Students: Are you ready for your own pizza business?](#)

STEMterprise Teacher Support Resources

- [Ontario Farming Grade 5 Educator Information Packet](#)
- [STEMterprise Grade 5 Assessment Planning](#)
- [Project Overview](#)
- [Combined Grade Activities](#)
- [Career Connections Slides](#)
- [Coding Connections Slides](#)
- [Good in Every Classroom Education Blog](#)
- [Good in Every Classroom Newsletter Sign-Up](#)

Stage 2 | Lesson 2: Canada's Food Guide and Food Labels

Slide 6: Business Connection	This Business Connection slide is intended to get kids thinking about the learning ahead as it specifically relates to their pizza business. Encourage the students to make early connections about the learning goals and the connection to their business. At this initial stage of STEMterprise, students may not have any ideas to share yet. This can be a question for them to consider at this point. This question will come up in each lesson and they can make these connections further into the project. The simple signposts along the bottom give students a sense of where they are on their learning journey. You can note the number of stages and which lesson you're on in that particular stage.
Slide 7: Minds On!	Students work in their business groups. They will read three short questions and write their answers on a sticky note. Place it on the chart at the front of your classroom.
Slide 8: Canada's Food Guide	Thought! The “plate” of the food guide represents a bit of a metaphor. Not every meal will be eaten on a plate (some cultures eat only bowls or in other ways), etc. The plate is a visual representation on how to create a balanced meal using the Food Guide as a starting point to build a healthy, balanced meal. Ask students to observe: • What's not on this plate? • What is on this plate? • What makes up most of this plate? Why might the foods shown be important for our bodies? Bring this back to a class discussion; consider creating a list at the front of your class. Answer: 3 groups are: vegetable and fruits, protein foods, whole grain foods Image Source: https://food-guide.canada.ca/en/
Slide 9/10: Canada's Food Guide	Canada's Food Guide is about more than this picture. Share with students some of the other information available on the Canada Food Guide website. Canada's food guide - Canada.ca

	Review the points in slide 12 to summarize the Food Guide.
Slide 11-13: What is a Whole Grain?	From the video: whole grains are defined as grains that are kept "whole" rather than being processed, ensuring all their natural parts remain intact to provide maximum nutrition. But there are many reasons to eat refined grains and they are also part of a healthy diet. Key Characteristics of Whole Grains: • Nutrient-Rich: They contain more nutrients because the grain is not stripped down, providing a healthy boost of B vitamins and fiber. • Complex Carbohydrates: They provide complex carbohydrates that give your body long-lasting energy to keep your muscles moving and "flexed." • Healthy Profile: They are naturally high in fiber and low in fat, making them an ideal choice for a healthy diet. Common Examples Mentioned: • Whole Wheat: Found in foods like whole wheat toast, crackers or pasta. • Corn: Used to make cornmeal • Oats: Often enjoyed as warm oatmeal • Others: The video also lists barley, brown rice and quinoa. Read slide 12 for students to develop an understanding of whole grains. Use the images on slide 13 to make connections to whole grains with student's' examples of foods. Images Descriptions: <i>Top row:</i> Whole wheat quesadilla, oat and whole wheat bread, pearl barley salad bowl. <i>Bottom row:</i> Granola bar made with oats, cornbread and, whole wheat pasta. Reminder! There are reasons families choose refined over whole grains, such as chronic conditions, culture, convenience or price. Some families prefer white bread and it's important that we avoid leading students to judge students for their lunches, etc.
Slide 14-15: Dietary Fibre	Read slides to begin a discussion about dietary fibre Have students reflect and answer the three questions on slide 15 based on the digestive system they built in Stage 2, Lesson 1.

Slide 16: Nutrition Label	Explore nutrition labels. Consider bringing in sample labels for students to look at.
Slide 17: Read a Label	Note: Image linked for closer view on website. Pizza can be found on grocery store sites if the link changes. Ask students: What can the Nutrition Facts table tell us about one serving of this pizza? Begin by drawing attention to the serving size at the top of the label. Explain: The information on this Nutrition Facts table is for one-quarter of the pizza, or 180 g. This means that all of the nutrient amounts and percentages shown are for one-quarter of the pizza (not for the entire pizza). Ask students to identify some of the information provided for one serving, such as: calories, fat, fibre, sugars, protein, sodium, calcium and iron. Next, direct students to the % Daily Value column. Explain: The % Daily Value helps us understand whether one serving provides a little or a lot of a nutrient compared to the total amount it is recommended that a person has in a day. Invite students to examine the label and discuss: • Which nutrients provide 5% or less of the Daily Value? • Which nutrients provide 15% or more? • Which nutrients fall between those amounts? • What do you notice about the different nutrients provided by one serving of pizza? Emphasize that the purpose is to gather and interpret information. You might say: A Nutrition Facts table gives us information about what a food provides. It does not give us one overall rating for the food. This pizza provides different amounts of many nutrients, and the information shown is connected to the serving size. Then ask: What would change if someone ate half of the pizza instead of one-quarter? Help students recognize that half of the

	pizza is equal to two servings, so the amounts of each nutrient would be doubled. Conclude with: Reading the serving size first helps us understand and accurately use all of the other information on the Nutrition Facts table.
Slide 18: Read Ingredients	Note: Image linked for closer view on website. Pizza can be found on grocery store sites if the link changes. Show students where to find an ingredient list. Tell them an ingredient list helps you understand what a product contains. This allows you to make informed choices, identify potential allergens and compare products for healthier options. Talk about how the ingredients are listed in order in a descending list of weight. So the ingredient that is the most is first all the way to the ingredient that is the least amount. Go through the label together to see how many ingredients are from each food group. In Canada, most prepackaged foods with more than one ingredient must have a list of ingredients, displayed in descending order of weight, along with a nutrition facts table, to help consumers make informed choices about healthy and safe foods. For example, to choose a whole grain option, the words “whole grain” must be on the list. For example, whole wheat bread will say whole wheat flour. Extension: Provide each group a piece of anchor chart paper with a pre-made meal that you can find at the grocery store. Ask students to find the nutritional facts and record what they notice and if the meal met the food guide criteria. NOTE: THIS IS A NATURAL BREAK TO THE LESSON IF YOUR TIME IS LIMITED Through an inclusive lens, look at the list of ingredients and talk about the restrictions that people may have and how we could accommodate them with substitutions, i.e. dairy-free cheese (nut cheese), rice flour, beyond meat sausage or chicken (if halal), artichokes and mushrooms contain protein. Also point out the allergen list on the label!
Slide 19: Scavenger Hunt	Educators: This exercise can be done by using labels found online OR by bringing in physical food labels. Having students look in their

	lunches might also provide some answers to the hunt or good discussions about foods. The Food Label Scavenger Hunt can be found at this link. If you're looking for a more in-depth lesson on Nutrition Labels and Ingredients Lists, check out this link: https://sustainontario.com/greenhouse/custom/uploads/2016/11/AqScape-Gr5-Reading-Labels.pdf
Slide 20/21: Growing Our Ingredients (Extension)	OPTIONAL: Growing Our Ingredients - Teachers can order seed kits at this link, while supplies last. Explain: We are going to grow our own pizza ingredients from seeds. Discuss how barley, oats and wheat can be part of the crust. Corn is used in the form of cornmeal for texture in the crust or on the bottom of the crust when baking, and soy can be made into a vegan cheese or a plant-based pepperoni alternative. Planting Your Seeds: Model planting each of the ingredient seeds by following the directions. Discuss the best place in the classroom to keep the plants to help them grow. Notes: • Keep the puck intact; don't remove the netting or break it apart. Soak it in warm water until doubled in size (15-20 min). • Some classes are growing one seed per cup per student, while others are growing enough for their business group. Either works.
Slide 22: Wrap Up	Why is it important to follow the dietary guidelines of Canada's food guide? • It's important to eat different kinds of foods because they support our bodies in different ways. Some foods provide energy to do work, some provide protein to build muscle, and others have vitamins and minerals to help us stay healthy. Trying foods from different cultures can give us a wider variety of food choices with varying health benefits. Now is a great time to create a THINGS TO CONSIDER chart for your class. Provide students with sticky notes, one per business group or pair. Have them add one thing they need to remember (in relation to this lesson) as they develop their pizza business. This is a great time to review what they have learned (i.e., how will we make sure food has nutrients, how will we keep people with allergies safe?) You might consider asking the class "What things will we need to

	consider when planning our pizzas (e.g., allergies, nutrients)?” before they write their sticky notes. Have a few students share answers with the class.
Slide 23: What’s Next?	The “What’s Next?” slide is intended to be flexible and may be customized or filled in by teachers based on their classroom needs, pacing, and next steps.
Slide 25/26: Career Connections (Extension)	Nutrition Specialist - See LTS for career profile, and bonus video link to see Chris Hadfield talk about food in space. Food Scientist - See AgScape link for career profile
Slide 28: Soil Moisture Monitor with Microbit (Extension)	Soil Moisture and Plant Watering are two separate Micro:Bit lessons that can be found at these links - Soil moisture monitor - Plant watering. If you choose to plant grain seeds as part of your project, the soil moisture monitor coding fits well in Stage 2 Lesson 2. The Plant watering lesson can be an extension activity.