



## Chews Wisely

### Grade 5 (Cycle 3)



Guar gum, annatto, fructose, carrageenan...foreign language? No, you've had them for lunch! Here students are given the tools necessary for making educational choices when it comes to food. They learn to decipher food labels, and to recognize what nutrients their bodies need and in what foods they can be found. Their new knowledge will be tested throughout the program and they will discover what impact physical activity may have on their body. Upon leaving the Museum, each student will have in hand his or her personal program to a healthier life.

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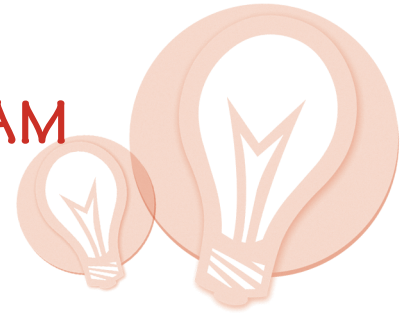
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# AN ENRICHING PROGRAM



## Target grade levels

This program targets Grade 5 in Ontario and Cycle 3 in Quebec.

## Duration

90 minutes

## Program dates

This program is offered weekdays from September to June.



## Learning objectives

- learn what impact the evolution of science and technology has had on our food supply
- understand what nutrients are, what their functions are, and in what foods they can be found
- realize that food may have a positive or negative impact on our health
- understand that some diseases may be prevented or caused by food choices
- learn how *Canada's Food Guide* can help us balance our diet
- learn how to read and use the information on food labels to make healthy food choices
- understand the purpose of food additives, preservatives, food fortification and enrichment
- understand the importance of daily physical activity in maintaining good health

## Learning methods

- sorting foods according to the nutrients they contain
- playing a case study game on nutrient deficiency
- comparing food servings to sporting items
- playing a game on food portions
- sorting foods according to the food groups in *Canada's Food Guide*
- matching ingredient lists and Nutrition Facts to the foods they belong to
- breaking a soft drink down to its raw ingredients
- visiting the **Food for Health** exhibition
- making a healthy lifestyle plan



## Curriculum Links

### ONTARIO

#### Grade 5

##### Science and Technology

Understanding Life Systems — Human Organ Systems

##### Health and Physical Education

Healthy Living



### QUEBEC

#### Cycle 3 Primary

##### Mathematics, Science and Technology

*Science and Technology*

- **Competency 1** To propose explanations for or solutions to scientific or technological problems
- **Competency 2** To make the most of scientific and technological tools, objects, and procedures

##### Personal Development

*Physical Education and Health*

- **Competency 3** To adopt a healthy, active lifestyle

## Fees, payment and group size

For fees, please visit the **School Programs** section of our website at [agriculture.technomuses.ca](http://agriculture.technomuses.ca) or call us at **613-991-3053** or **1-866-442-4416**. Payment may be made in advance or on arrival, by cash, debit card, cheque (made payable to the *Canada Agriculture Museum*), or by credit card (VISA or MasterCard). Maximum group size for this program is 25 students. There are cancellation fees—**please consult the Important Information section for more details.**

*If you have any questions, please do not hesitate to contact us at 613-991-3053.*

## We look forward to seeing you at the Museum!



# NUTRIENTS

The food you eat is made up of nutrients. Some foods are made up of a few nutrients, others of many. In the table below, you will find a description of the six different kinds of nutrients your body needs to grow, be active, and stay healthy. For each nutrient, find four foods that are rich in it.

<p><b>Carbohydrates</b> These are fuel for the body. They give the body energy.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>	<p><b>Fats</b> Fats provide the body with energy, and keep it warm by insulating it.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>
<p><b>Proteins</b> Proteins are like building blocks. The body needs them to grow, and to repair itself. Proteins can also provide energy.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>	<p><b>Vitamins</b> Vitamins are essential for growth, and for keeping the body healthy.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>
<p><b>Minerals</b> Bones and teeth are made of minerals. Minerals help muscles work the way they should, and help the body to make blood.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>	<p><b>Water</b> More than half of the human body is made of water. Water carries nutrients to all parts of the body, and helps it to get rid of wastes.</p> <p>1 _____ 2 _____ 3 _____ 4 _____</p>

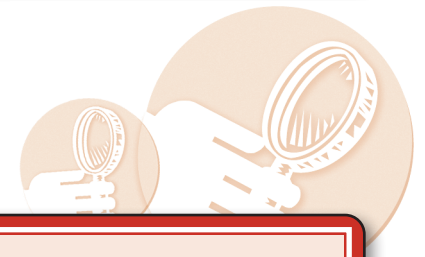






## Science and Technology

# STARCHY OR NOT?



Carbohydrates, such as sugars and starches, are the nutrients that give us most of our energy. Sugars are **simple** sugars. Our body can digest them and access the energy they provide easily. When eating simple sugars, we get a “sugar rush.” This means we get lots of energy, but for a short period of time. Starches are **complex** sugars. Our body has to work harder to digest them and it takes longer for our body to access the energy they contain. Complex sugars provide constant energy over a longer period of time. The following activity is a simple test students can do on their own to identify which foods contain starches.

## Purpose

- 1 To understand the importance of starch in a healthy diet.
- 2 To identify foods that contain starch.

*Note: Please be sensitive to food allergies in your classroom and avoid all foods that could trigger a reaction.*

## Equipment (per team)

- variety of foods (e.g., crackers, bread, cheese, potato, sweet potato, apple, orange, banana, etc.)
- iodine
- eye dropper
- small paper cups
- **Starchy or Not?** observation chart (one per team)
- pencil

## Instructions

- 1 Before starting the experiment, have a discussion about carbohydrates with students. Explain that there are two different kinds of carbohydrates that provide us with energy: sugars and starches. Discuss the differences between them. Most staple foods around the world are rich in starches because of the energy they provide. Explain to students that during this experiment they will discover which foods are good sources of starch. They will also discover which food group consists of foods that contain lots of starch.
- 2 Have students team up into groups of two to four. Distribute the observation charts and have students fill out the hypothesis section, where they predict the results of the experiment.
- 3 Ask students to place small amounts of each food in the paper cup, then add a drop or two of iodine to each food sample. Remind them to be careful with the iodine as it can stain clothing.
- 4 If the food contains starch the iodine will change colour from its normal brownish-yellow to a blue or purplish-black.
- 5 Have students complete the observation chart.



Team members: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## STARCHY OR NOT?

### Observation Chart

Food	Hypothesis: Do you think this food contains starch?		Does it in fact contain starch?		Which food group does it belong to?
	yes	no	yes	no	

To which food group do most of the foods containing starch belong?

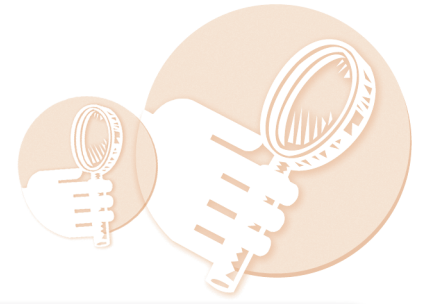
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## Science and Technology

# OILY DISCOVERIES



Fats and oils provide energy and add flavour to our food. They are an important element in the growth and development of children. On the other hand, too much of the wrong fat can cause serious medical problems such as heart disease. Fat should account for no more than thirty percent of our energy intake. The following activity allows students to test and discover what foods are rich in fats and oils.

## Purpose

To identify foods that contain fat.

*Note: Please be sensitive to food allergies in your classroom and avoid all foods that could trigger a reaction.*

## Equipment (per team)

- variety of food samples (include all kinds of food—some foods students think do not contain fat, such as cheese, can bring surprising results)
- brown paper from a grocery bag (without lettering)
- compass
- teaspoons
- ruler
- *Oily Discoveries* observation chart
- pencil

## Instructions

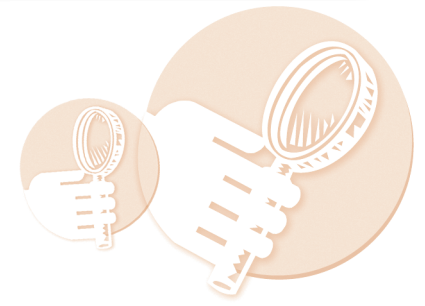
- 1 Have students team up into groups of two to four.
- 2 Have students cut up the brown paper into squares measuring at least 15 cm square; cut enough so that there is one for each food sample.

continued...





## Science and Technology



# OILY DISCOVERIES

## Instructions (continued)

- 3 Have students write the name of the food to be tested at the bottom of each square.
- 4 Have students use the compass to draw a circle measuring 5 cm in diameter on each square.
- 5 Have students spread a teaspoon of each food in the appropriate circle. For students to be able to measure and compare the results of this experiment, it is important that the surface on which the food is spread, as well as the amount spread, be consistent for all foods. Therefore, they must make sure the entire circle has been covered and that the entire teaspoon of food is used.
- 6 Ask students to complete the hypothesis section of the observation chart (questions 1 and 2), where they predict the results of the experiment.
- 7 Let the squares dry for a day. If the food contained fat or oil, an oily stain will appear around the sample. Have students measure how far the stain spreads around each sample (using a ruler to measure from the edge of the food to the edge of the stain) and record the measurements on the observation chart. The farther the stain spreads, the fattier or oilier the food.
- 8 Have students complete the rest of the observation chart and answer the questions that follow the chart (questions 3 and 4).
- 9 When the activity has been completed, ask students to share their discoveries with their classmates. Did they discover that some foods, thought to be low in fat, were actually very fatty? What about foods they thought were high in fat—were some lower in fat than expected?



Team members: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_



## OILY DISCOVERIES

### Hypothesis:

1 Which food do you think contains the most fat?

\_\_\_\_\_

2 Which food do you think contains the least fat?

\_\_\_\_\_

### Observation Chart:

Food	Hypothesis: do you think this food contains fat or oil?		How large is the fat or oil stain? (mm)	Which food group does it belong to?
	yes	no		

3 Was your hypothesis right or wrong?

\_\_\_\_\_

4 Which food contained the most fat, and which one contained the least fat?

\_\_\_\_\_

\_\_\_\_\_



## Science and Technology



# WHAT'S THAT FAT?

Fats and oils are not all equal. Some can improve your health while others should be eaten only in small quantities. The purpose of this experiment is to help students separate the good from the bad when it comes to fats and oils. Students use the “Nutrition Facts” found on packaging to categorize the fats and oils that are healthy from the fats and oils that they should eat in moderation, or avoid entirely.

## Purpose

To categorize good and bad fats and oils.

## Materials

*Note: Please be sensitive to food allergies in your classroom and avoid all foods that could trigger a reaction.*

- small bottles (still in original packaging) of various cooking oils — canola, olive, sunflower, vegetable, sesame, safflower, corn, almond, etc.
- small containers (still in original packaging) of various cooking fats—butter, margarine (with and without hydrogenated fat), lard, vegetable shortening, etc.

## Instructions

- 1 Leave the oils and fats at room temperature.
- 2 On the blackboard, draw a chart composed of three columns. Label the first column “unsaturated fats,” the second column “saturated fats,” and the last column “trans fats.”
- 3 Explain that the body needs fat to grow and develop normally. Fat fuels the body, insulates it and keeps it warm, and helps absorb some vitamins. However, only certain types of fat, in the right amount, are healthy.
- 4 Discuss the different types of fat. You can use the Fat Facts information sheet, located in Appendix 1 of this package, as a guide. As a class, compose a description of each type of fat and record it in the associated column on the blackboard.
- 5 Have students team up in groups of four or five and distribute a few oils and fats to each group.

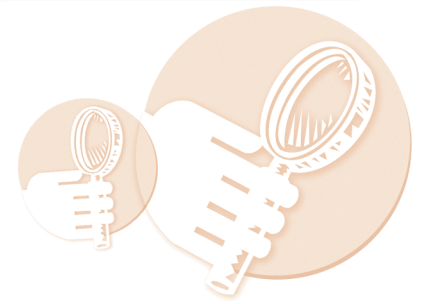
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## Science and Technology



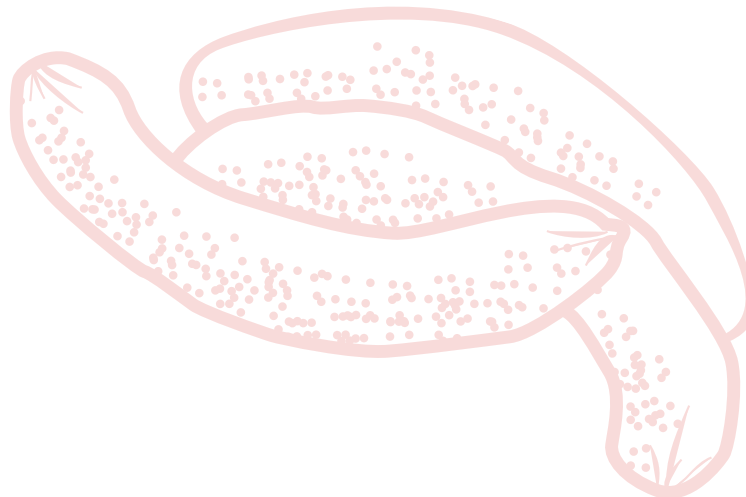
### WHAT'S THAT FAT?

#### Instructions (continued)

- Using the Nutrition Facts on the package labels, and the descriptions recorded on the blackboard, have students record the names of each oil and fat sample in the correct column on the blackboard. Some cooking oils and fats may contain more than one type of fat. Classify them according to the fat they contain the most of.
- Discuss the findings recorded on the chart.

#### Other Activities

- Have students write down a list of their favourite foods. Give students the homework of finding out if these foods contain fat and, if they do, which kind of fat these foods contain. They will have to look at the Nutrition Facts or list of ingredients on the packaging of these foods. Produce, which is not usually pre-packaged, will not have this information but students could search the Internet and discover, for example, that some fruits, such as avocados, are very rich in unsaturated fats.
- Do most of their favourite foods belong to the unsaturated, saturated, or trans fat category? Discuss with students how they can incorporate more of the “good” fats in their diet. They can bring cookie or muffin recipes from home and modify the recipes by replacing the healthier fats with healthier choices (for example, butter or vegetable shortening could be replaced with non-hydrogenated margarine).





## Science and Technology



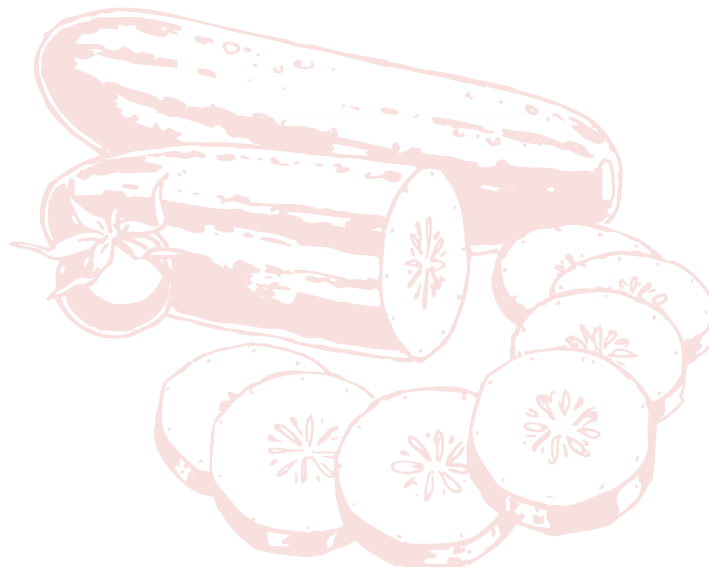
# HOW BALANCED IS MY DIET ?

This combination of activities allows students to measure how balanced their diet is. They take note of all the foods they eat over a period of three days, calculate the number of servings for each food group, compare their diet with *Canada's Food Guide* recommendations, and finally, assess their diet and plan improvements.

## Instructions

- 1 Distribute one copy of the **My Food Diary** activity sheet, and *Canada's Food Guide*, to each student. Review *Canada's Food Guide* with the class. Ensure students understand what food belongs in which food group. Have students take note of all the food they eat over a period of three days. **It is strongly suggested that students complete the Arts activity Portion Poster on food servings before starting this activity. It will be a good aid for students to measure food servings for their diaries.**
- 2 Distribute three copies of **Food Classification** Activity 1, and one copy of Activity 2, to each student. Have students calculate how many servings from each food group they have each day in the food diary. Have students reflect on their diet and consider ways to improve it if necessary.

To print or order a copy of *Canada's Food Guide*, visit Health Canada's website: [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca).



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## MY FOOD DIARY

What did you eat today? Keep track of everything you eat for the next three days on the chart below. Using *Canada's Food Guide*, record the number of servings beside each food in your list. When you have filled out the chart, underline the different food groups according to the colours listed below.

Vegetable and Fruits.....green

Grain Products.....yellow

Milk and Alternatives.....blue

Meat and Alternatives.....red

Combination foods (e.g., pizza).....black

Other foods.....brown

DAY	BREAKFAST	LUNCH	DINNER	SNACKS
1				
2				
3				



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# FOOD CLASSIFICATION

## Activity 1

Using your **Food Diary** and *Canada's Food Guide*, record the number of servings of food that you ate from each food group. Use one of these **Food Classification** (Activity 1) sheets for each day of the diary. Each square represents one serving. Colour the squares according to the colour list below. For combination foods, estimate the amount that would belong to each food group and colour the appropriate box.

- Vegetable and Fruits.....green
- Grain Products.....yellow
- Milk and Alternatives.....blue
- Meat and Alternatives.....red
- Other foods.....brown

**Vegetables and Fruit** (recommended servings per day: 6)

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**Grain Products** (recommended servings per day: 6)

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**Milk and Alternatives** (recommended servings per day: 3 to 4)

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**Meat and Alternatives** (recommended servings per day: 1 to 2)

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**Other**

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

# FOOD CLASSIFICATION

## Activity 2

- 1 Compare your food consumption to the recommendations in *Canada's Food Guide*. Did you eat enough, too much, or just right?

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- 2 Did you eat foods that do not belong to any of the *Food Guide* categories? Why do you think these foods not belong to any of the food groups?

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- 3 What improvements could you make to your diet?

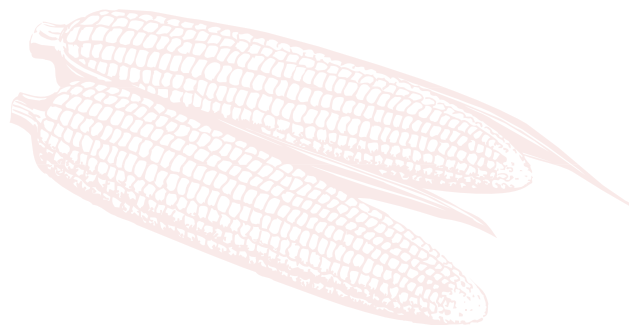
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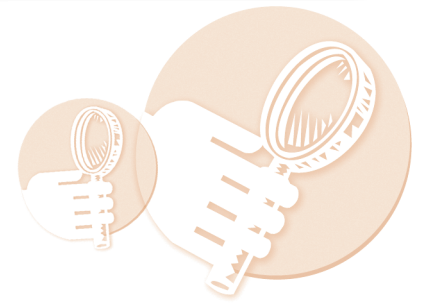
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## Science and Technology



# BALANCE YOUR DIET

As students become more familiar with nutrients and their functions, they also become more aware of the importance of eating a balanced diet. But eating enough of everything and not too much of one thing can be hard to measure. Luckily for us, *Canada's Food Guide* is there to offer us guidelines and help us plan a balanced diet in an easy and simple way. This exercise allows students to plan and balance their daily menus for a day, and familiarizes them with *Canada's Food Guide* and how to read it.

## Instructions

- 1 Distribute one copy of the **Menu Planner** activity sheet to each student. Have them fill it out.
- 2 Discuss the results of the menu plans. Ask students if they found it easy or difficult to plan their menus.
- 3 Discuss the issues that could arise if they had to plan a balanced diet without *Canada's Food Guide*.
- 4 Discuss the importance of eating a balanced diet. What happens if you eat too much, or not enough, from a food group over a long period of time?





Name: \_\_\_\_\_

Date: \_\_\_\_\_

## MENU PLANNER

Plan your menu for the day. Make sure you eat enough portions from each food group but not too much from any of them. See the recommended daily servings at the bottom of this page.

As you compose your menu, record the food names in the appropriate food group column. Record the number of servings for each food in brackets after it. For example, if you eat two slices of bread for breakfast, write bread in the "Grain Products" column, followed by "(2)." Add up the number of servings for each food group and record this number at the bottom of the chart.

	Vegetables and Fruits	Grain Products	Milk and Alternatives	Meat and Alternatives
Breakfast				
Lunch				
Supper				
Snacks				
Total number of servings				

Recommended number of servings per day for children ages 9 to 13:

- Vegetables and Fruit           6
- Grain Products                   6
- Milk and Alternatives       3 to 4
- Meat and Alternatives       1 to 2





## Science and Technology

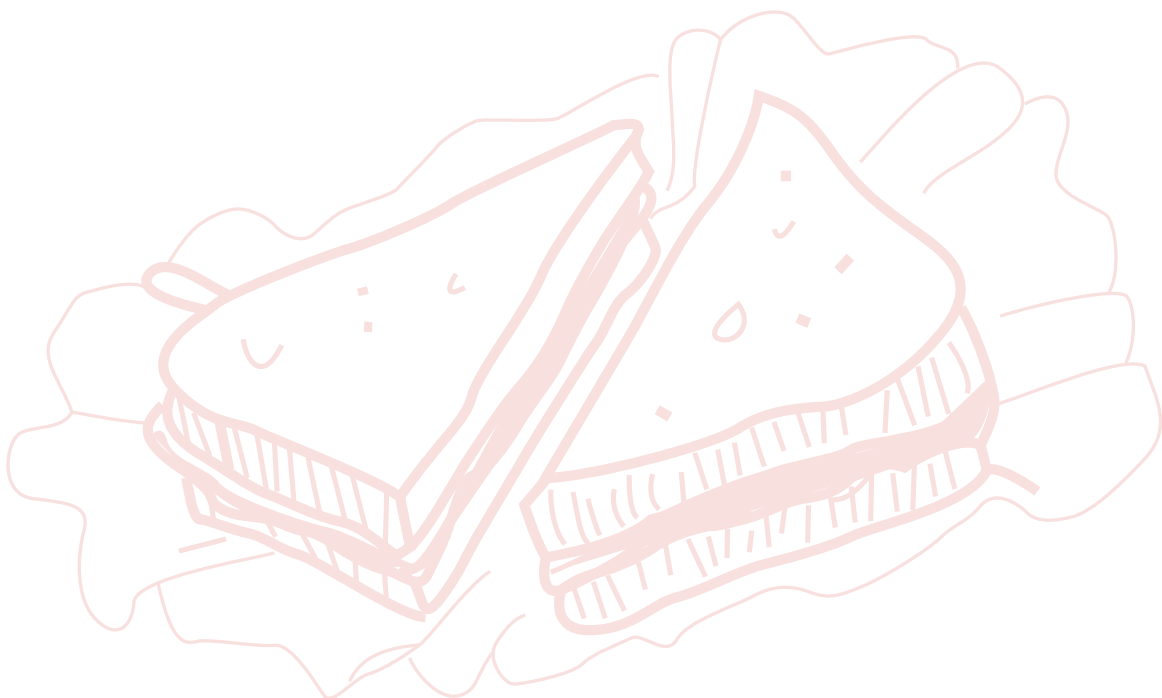


# SANDWICHES FROM AROUND THE WORLD

In this activity, students compare foods in Canada with foods from other countries, and learn how people living in other regions of the world meet their nutritional needs.

## Instructions

- 1 Distribute the *Sandwiches from Around the World* activity sheet to students.
- 2 Ask students to choose one country and research what kind of sandwich is eaten there. Have them list what the sandwich is made of—the type of bread, fillings, condiments, etc.
- 3 Have students identify which food group each ingredient belongs to.
- 4 Staple the activity sheets together to create a “Sandwiches from Around the World” recipe book. Make copies of the book for students to take home.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## SANDWICHES FROM AROUND THE WORLD

### What is a traditional sandwich?

In Canada, a traditional sandwich has at least two slices of bread with a filling between them. The filling can be a meat or alternative, with condiments, lettuce, tomato, cheese, onion, hummus, and much more. A sandwich can be served hot or cold, and is usually eaten by hand.

Other countries may not have sandwiches exactly like in Canada, but they will have a similar food. For example, in Mexico, meat, condiments, lettuce, tomato, and cheese are served in a taco shell, which is made from corn flour.

Research a country to find out what children eat that is equivalent to our sandwich.

Country: \_\_\_\_\_

Name of sandwich: \_\_\_\_\_

Ingredients: \_\_\_\_\_

To which food group does each ingredient belong? Write the name of each ingredient in the appropriate column.

Food Groups			
Vegetables and Fruits	Grain Products	Milk and Alternatives	Meat and Alternatives

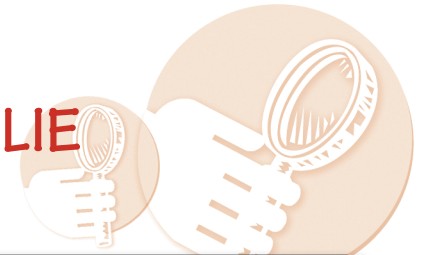




# Science and Technology

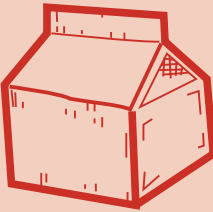
## NUTRITION FACTS NEVER LIE

### Answers



Most foods we find in stores have “Nutrition Facts” listed in a chart on their packaging. These provide the nutrition information you need to be able to compare products, choose foods richer in certain nutrients, or make healthier food choices. To get the most out of the Nutrition Facts, you have to know how to interpret them.

Use the information in this Nutrition Facts chart to answer the following questions:

<b>2% Partially Skimmed Milk</b> 	<b>1</b> How many calories are in one cup of this milk? <input type="text" value="130 calories"/>
	<b>2</b> If you drink one cup of this milk, how much of your daily need for vitamin D would be met? <input type="text" value="45%"/>
	<b>3</b> How many cups of this milk would you have to drink to get all the calcium you need for one day? <input type="text" value="3-1/3 cups"/>

**4** How much saturated fat would you get from two cups of this milk?

6 grams

**5** How much iron would you get from one cup of this milk?

0% of my daily value

2% Partially Skimmed Milk	
Nutrition Facts	
Per 1 cup (250 mL)	
Amount	% Daily Value
<b>Calories</b> 130	
<b>Fat</b> 5 g	8%
<b>Saturated</b> 3 g <b>+ Trans</b> 0.1 g	16%
<b>Cholesterol</b> 20 mg	
<b>Sodium</b> 120 mg	5%
<b>Carbohydrate</b> 12 g	4%
<b>Fibre</b> 0 g	0%
<b>Sugars</b> 12 g	
<b>Protein</b> 9 g	
<b>Vitamin A</b>	10%
<b>Calcium</b>	30%
<b>Vitamin D</b>	45%
<b>Vitamin C</b>	0%
<b>Iron</b>	0%

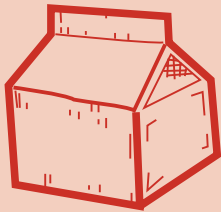


## NUTRITION FACTS NEVER LIE

Most foods we find in stores have “Nutrition Facts” listed in a chart on their packaging. These provide the nutrition information you need to be able to compare products, choose foods richer in certain nutrients, or make healthier food choices. To get the most out of the Nutrition Facts, you have to know how to interpret them.

Use the information in this Nutrition Facts chart to answer the following questions:

**2% Partially Skimmed Milk**



**1** How many calories are in one cup of this milk?

**2** If you drink one cup of this milk, how much of your daily need for vitamin D would be met?

**3** How many cups of this milk would you have to drink to get all the calcium you need for one day?

**4** How much saturated fat would you get from two cups of this milk?

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**5** How much iron would you get from one cup of this milk?

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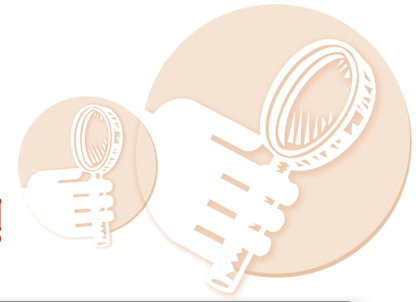


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2% Partially Skimmed Milk	
Nutrition Facts	
Per 1 cup (250 mL)	
Amount	% Daily Value
<b>Calories</b> 130	
<b>Fat</b> 5 g	8%
<b>Saturated</b> 3 g <b>+ Trans</b> 0.1 g	16%
<b>Cholesterol</b> 20 mg	
<b>Sodium</b> 120 mg	5%
<b>Carbohydrate</b> 12 g	4%
<b>Fibre</b> 0 g	0%
<b>Sugars</b> 12 g	
<b>Protein</b> 9 g	
<b>Vitamin A</b>	10%
<b>Calcium</b>	30%
<b>Vitamin D</b>	45%
<b>Vitamin C</b>	0%
<b>Iron</b>	0%



# Science and Technology



## COMPARE YOUR FOOD!

Most foods we find in stores have “Nutrition Facts” listed in a chart on their packaging. These provide you with the nutrition information you need to be able to compare products, choose foods richer in certain nutrients, or make healthier food choices.

Use the information in these two Nutrition Facts charts to answer the following questions:

2% Partially Skimmed Milk		Plain Soy Milk	
Nutrition Facts		Nutrition Facts	
Per 1 cup (250 mL)		Per 1 cup (250 mL)	
Amount	% Daily Value	Amount	% Daily Value
<b>Calories</b> 130		<b>Calories</b> 100	6%
<b>Fat</b> 5 g	8%	<b>Fat</b> 4 g	0%
Saturated 3 g + Trans 0.1 g	16%	Saturated 0 g + Trans 0 g	
<b>Cholesterol</b> 20 mg		<b>Cholesterol</b> 0 mg	3%
<b>Sodium</b> 120 mg	5%	<b>Sodium</b> 75 mg	3%
<b>Carbohydrate</b> 12 g	4%	<b>Carbohydrate</b> 8 g	0%
Fibre 0 g	0%	Fibre 0 g	
Sugars 12 g		Sugars 4 g	
<b>Protein</b> 9 g		<b>Protein</b> 7 g	10%
Vitamin A	10%	Vitamin A	30%
Calcium	30%	Calcium	30%
Vitamin D	45%	Vitamin D	0%
Vitamin C	0%	Vitamin C	6%
Iron	0%	Iron	

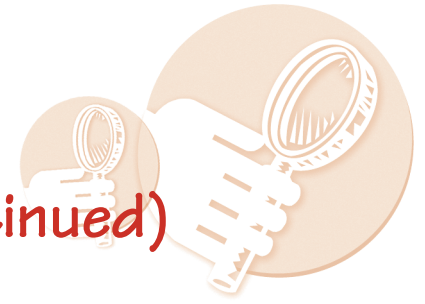
continued...







# Science and Technology



## COMPARE YOUR FOOD! (continued)

### Answers

1 Which milk has fewer calories?

soy milk

2 Which milk has no saturated fat?

soy milk

3 Which milk has more vitamin D in it? Why is vitamin D added to cow's milk and soy milk?

2% cow's milk; vitamin D is essential for bone growth; it helps your body absorb the calcium and phosphorus it needs to build and maintain bones and teeth

4 How many cups of cow's milk would you have to drink to get all the vitamin D you need for one day?  
How many cups of soy milk would you have to drink to get the same amount of vitamin D?

$100 \div 45 = 2.22$

about 2-1/5 cups of cow's milk

$100 \div 30 = 3.33$

about 3-1/3 cups of soy milk

5 If you were suffering from anemia (when your body does not have enough iron to build red blood cells), which milk should you drink and why?

soy milk, because it has iron; cow's milk has no iron

6 What kind of milk do you drink at home and why has your family chosen to drink that kind?



## COMPARE YOUR FOOD!

Most foods we find in stores have “Nutrition Facts” listed in a chart on their packaging. These provide you with the nutrition information you need to be able to compare products, choose foods richer in certain nutrients, or make healthier food choices.

Use the information in these two Nutrition Facts charts to answer the following questions:

2% Partially Skimmed Milk	
Nutrition Facts	
Per 1 cup (250 mL)	
Amount	% Daily Value
<b>Calories</b> 130	
<b>Fat</b> 5 g	8%
Saturated 3 g + Trans 0.1 g	16%
<b>Cholesterol</b> 20 mg	
<b>Sodium</b> 120 mg	5%
<b>Carbohydrate</b> 12 g	4%
Fibre 0 g	0%
Sugars 12 g	
<b>Protein</b> 9 g	
Vitamin A	10%
Calcium	30%
Vitamin D	45%
Vitamin C	0%
Iron	0%

Plain Soy Milk	
Nutrition Facts	
Per 1 cup (250 mL)	
Amount	% Daily Value
<b>Calories</b> 100	
<b>Fat</b> 4 g	6%
Saturated 0 g + Trans 0 g	0%
<b>Cholesterol</b> 0 mg	
<b>Sodium</b> 75 mg	3%
<b>Carbohydrate</b> 8 g	3%
Fibre 0 g	0%
Sugars 4 g	
<b>Protein</b> 7 g	
Vitamin A	10%
Calcium	30%
Vitamin D	0%
Vitamin C	6%
Iron	

continued...



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## COMPARE YOUR FOOD! (continued)

1 Which milk has fewer calories?

---

2 Which milk has no saturated fat?

---

3 Which milk has more vitamin D in it? Why is vitamin D added to cow's milk and soy milk?

---

---

4 How many cups of cow's milk would you have to drink to get all the vitamin D you need for one day?  
How many cups of soy milk would you have to drink to get the same amount of vitamin D?

---

---

---

---

5 If you were suffering from anemia (when your body does not have enough iron to build red blood cells), which milk should you drink and why?

---

6 What kind of milk do you drink at home and why has your family chosen to drink that kind?

---

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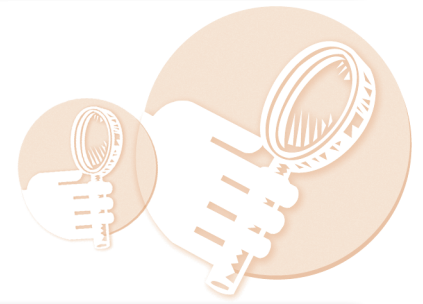
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## Science and Technology

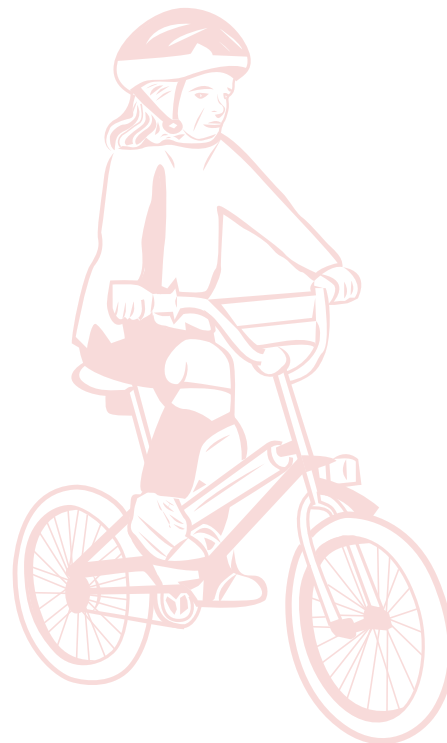
### WHY EXERCISE DAILY?



*Canada's Physical Activity Guide recommends children have ninety minutes of moderate physical activity every day. Moderate exercise includes activities such as brisk walking, swimming, bicycling, and dancing.*

### Instructions

- 1 Have students make a list of important reasons to exercise (e.g., better health, fitness, and self esteem; improved posture and balance; weight control; stronger muscles and bones; increased energy; relaxation; stress reduction; etc.)
- 2 Have students record the amount of time they spend exercising over a period of one to three days. Any exercise that requires a moderate effort or more can be counted.
- 3 Did students meet the recommended ninety minutes of moderate physical activity per day? If not, how can they improve? Have them plan a daily schedule that would add more physical activity into their daily life. For example: "Speed walk the dog two extra blocks every evening with my dad."





## Science and Technology

# WHY DO WE EAT PROCESSED FOODS?

Not so long ago, most Canadians had to grow or raise their food to sustain them during the following year. To prevent food from spoiling, they had to **process** it. Canning, salting, drying, and smoking are all methods of processing and preserving food for later consumption. Today, with refrigeration, freezing, improved transportation, and modern farming, Canadians are able to eat fresh produce year round. Strawberries can be found in grocery stores every month of the year, while only fifty years ago, fresh ones weren't available out of season. Even so, we still eat strawberry jam on our toast for breakfast. Processed foods are a part of everyday life!

## Definition

**processed food** any raw food that has been transformed for human consumption; chopping, slicing, peeling, mincing, liquefying (to make juice), mixing, frying, cooking, boiling, fermenting, salting, drying, and anything else that changes raw food, is a method of processing food.

Through this exercise, students will realize the wide variety of foods available to them. They will understand what processed and preserved foods are and why we rely on them, even though fresh produce is available year round. Some foods are processed to add shelf life, others to change the taste, create a new product, or add nutritional value (e.g., adding vitamin D to milk).

## Instructions

- 1 Have students make a list of the foods in their lunch.
- 2 Have students sort the produce (fresh and raw foods that are in their harvest state) from the processed foods.
- 3 Discuss why we eat processed foods. Is it because it is more convenient, cheaper, lasts longer (rural families may live far away from grocery stores and not be able to buy fresh produce frequently), tastes better, adds nutritional value, or offers more variety?
- 4 Have each student choose a raw food product (e.g., milk, wheat, corn, apples, strawberries, etc.) and list some of the processed foods that can be made from it. For example:
 

**Cow's milk:** All milk products have been processed in one way or another. At the dairy, all milk has been **pasteurized** (heated to a high temperature and then cooled quickly) and **homogenized** (passed through a series of small sieves that break down fat particles to prevent them from rising to the top of the milk), such as homogenized 3.25% milk, skim milk, 1% milk, 2% milk, lactose free milk, etc. Examples of dairy products that you may think are raw, but are not since they have been processed, are such products as cheese, yogourt, ice cream, sour cream, ghee, butter, and kefir.
- 5 Have students research what industries take part in the processing of the product they chose.





# Social Sciences

## AGRICULTURE ACROSS CANADA

### Answers



Canada is a great food-producing country. Its climate and geography allow farmers to grow and raise a wide variety of plants and animals all over the country. Warm summers offer ideal growing conditions, while cold winters help kill the pests that cause damage to plants. Different regions offer different advantages: the Prairies' flat lands allow heavy machinery to till, plant, and harvest thousands of acres of crops, while the red sandy soil of Prince Edward Island is ideal for potato culture. The crops and animals raised in Canada are as varied as the climate and geography of the country. You may have known that the Prairies are a region with ideal conditions for growing wheat, but did you know that peanuts, kiwis, and peaches are also grown in Canada?

In the box under each crop listed below, indicate the provinces or territories where it is grown in Canada.



soybeans	canola and flax	vineyards and orchards	blueberries	wheat	maple syrup	cranberries	peanuts
Que., Ont., Man.	Alta, Sask., Man.	B.C., Ont., Que., N.B., N.S.	B.C., Ont., Que., N.B., P.E.I., N.S., Nfld. and Lab.	Alta, Sask., Man., Ont.	Que., Ont., N.B., N.S.	Que., Ont., N.B., N.S.	Ont.

### Other Activity

This activity allows students to learn more about the different regions in Canada, and reinforces the notion that agriculture, climate, and geography are interlinked.

- 1 Have students research a food product, and why it is grown or raised in a specific region (e.g., climate, soil type, altitude, access to fresh water or salt water).
- 2 Have students share their findings with each other.





Name: \_\_\_\_\_

Date: \_\_\_\_\_

## AGRICULTURE ACROSS CANADA

Canada is a great food-producing country. Its climate and geography allow farmers to grow and raise a wide variety of plants and animals all over the country. Warm summers offer ideal growing conditions, while cold winters help kill the pests that cause damage to plants. Different regions offer different advantages: the Prairies' flat lands allow heavy machinery to till, plant, and harvest thousands of acres of crops, while the red sandy soil of Prince Edward Island is ideal for potato culture. The crops and animals raised in Canada are as varied as the climate and geography of the country. You may have known that the Prairies are a region with ideal conditions for growing wheat, but did you know that peanuts, kiwis, and peaches are also grown in Canada?

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soybeans	canola and flax	vineyards and orchards	blueberries	wheat	maple syrup	cranberries	peanuts





## Social Sciences



# EXERCISE YOUR WAY ACROSS CANADA

This activity encourages students to add physical activity to their daily routine by exercising their way across the province, or across Canada (the Trans-Canada Highway is 7 820 kilometres long; the Trans-Canada Trail has 18 000 kilometres of recreational corridors). Students can work in teams (five to seven per group) to see which team is first across the province, or Canada. Or, the class can work as one large group. As they “travel” across the country or province, have students notice the villages, towns, important historical landmarks, or geographic regions. This activity is a great way for students to “visit” their province, or country!

## Instructions

- 1 Brainstorm a list of accepted physical activities. These can be for improving strength, or endurance. Assume that ten minutes of activity equals one kilometre.
- 2 Distribute a copy of the Exercise Your Way Across Canada chart to each student. Have them record the amount of time they spend in physical activity each day. An activity must be on the accepted list and at least ten minutes long to count.
- 3 At the end of each week, have students tally their time by adding one kilometre for every ten minutes of exercise.
- 4 Each Monday morning have students add their kilometres to the map. Watch the teams, or the class as a whole, make their way across Canada or the province.

## Other Activities

- 1 If your class has access to pedometers, have students “walk” across the province, or Canada. Measure the length of one stride, and tally the number of steps your class makes each day or week. Multiply the number of steps by the length of one stride to determine the distance covered. Have students mark their progress on a map of the province, or Canada.
- 2 If you are walking the Trans Canada Trail, plan an outing to a local segment of the Trail.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## EXERCISE YOUR WAY ACROSS CANADA

WEEK	Mon.	Tues.	Wed.	Thu.	Fri.	Sat.	Sun.	Total	
	min	min	min	min	min	min	min	km	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									

**GRAND TOTAL:** \_\_\_\_\_ Minutes    \_\_\_\_\_ Kilometres

10 minutes of exercise = 1 kilometre





## Health and Physical Education



# A MYSTERY INGREDIENTS ENCYCLOPEDIA

Many foods contain ingredients that are a mystery to us—what are they, why are they used in foods, and where do they come from? While completing this encyclopedia, students learn that some ingredients may be listed under different names. They also discover what food additives and preservatives are, why we find them in our food, why some foods are enriched or fortified, and the benefits of eating these foods.

## Instructions

- 1 Have students bring food labels from home. Together, make a list of the ingredients on the package labels that the students have never heard of before.
- 2 Have students form teams and choose one ingredient to research. What is it? Why is it added to food? How is it produced? Where does it come from? Students may make interesting discoveries. For example, artificial vanilla is a by-product of the paper producing industry.
- 3 Have the teams present their findings.
- 4 As a class, categorize the ingredients according to their function. Categories could include enriching and fortifying ingredients, preservatives, sweeteners, etc. Brainstorm a definition for each category. Using a different page for each category, record the definition at the top of the page, and list the ingredients below. Put the pages together in a binder to form an “encyclopedia” for the classroom.
- 5 In the following weeks, as students eat their lunches or snacks, have them consult the encyclopedia to inform themselves on the ingredients in their food.
- 6 Have students add information to the encyclopedia each time they find new ingredients in their lunches.





# Health and Physical Education



## A SUGARY SEARCH

Sugar is often added to food to preserve it (jams, jellies, and preserves) and to add sweetness to the flavour. The taste of sugar is obvious in some foods, such as cookies and cake, but there are many other foods that also contain sugar where the taste is not so obvious.

### Instructions

- 1 Collect food labels and have students examine the ingredients list for sugar. Sugar might be listed as:

corn syrup  
dextrose  
fructose  
glucose  
glucose-fructose  
honey  
lactose  
maltose  
maple syrup  
molasses  
sucrose

- 2 Out of the labels you collected, how many indicated that sugar had been added?
- 3 Ask students to name other foods that may contain sugar but have no food label. For example, some fruits and vegetables are extremely rich in sugar (i.e., in glucose and fructose, which are **unrefined** sugars).
- 4 Have students research different types of sugar. Have students find out where the sugars come from (e.g., milk, sugar cane, fruit, corn, etc.), and whether they are **refined** sugars (e.g., molasses, corn syrup, and white sugar are all transformed from raw sugar) or **unrefined** sugars (e.g., the fructose in an apple or honey is in its natural state).





## Health and Physical Education



# SAFE OR NOT SAFE? CHECK THE INGREDIENTS!

Through this activity, students learn that ingredient lists not only help us make informed decisions about the food we eat, they can also save someone's life. Students also learn about food allergies and intolerances, and about health problems that can be worsened or improved according to the foods eaten.

## Instructions

- 1 Collect empty packages of various foods.
- 2 Divide students into groups of four.
- 3 Give each group a particular food allergy, intolerance, or health problem related to food to research. Have them find out symptoms and serious side effects. Below is a list of possible topics. If any student has a particular problem be sure to include it.  

Examples

  - lactose intolerance (when a person lacks the enzyme needed to break down lactose, a sugar found in milk)
  - peanuts and other nut allergies
  - egg allergy
  - soy allergy
  - celiac disease (inability to digest gluten properly)
  - diabetes (inability to produce insulin and break down sugar)
- 4 Using the ingredient lists on the food packages, have students categorize the foods into two groups: foods that people with the particular food allergy, or intolerance, or health problem can eat, and those foods that they must avoid.
- 5 Discuss the difficulties people with food allergies, intolerances, and health problems related to food meet in their daily lives. For example, what precautions must a person with a nut allergy take every day? Why is food labelling so important to that person?



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# MY GOALS FOR A HEALTHY BALANCED LIFE

For a goal to be accomplished, you need a workable plan to reach that goal. Your goals are personal and will be different from those of others.

## Instructions

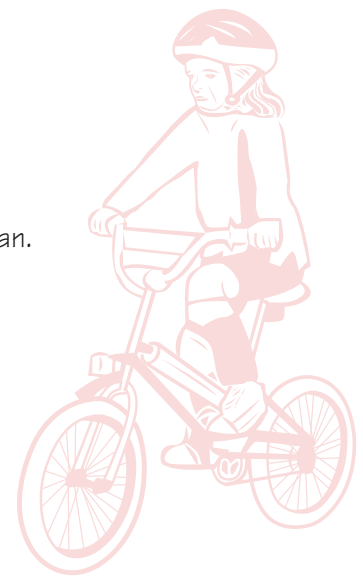
- 1 Decide on your goals for living a healthy balanced life.
- 2 Decide when you want to achieve the goals.
- 3 Create a plan to reach your goals.
- 4 Don't be hard on yourself. If you aren't on track, reassess and rework your plan.
- 5 Reward yourself along the way.
- 6 Above all, be realistic.

Here's an example:

## My Goals

### Physical

Goal	to complete the 10K Terry Fox Run on my bike
Time	by next September
How	<ul style="list-style-type: none"><li>• once the streets are clear of snow and ice, always ride my bike to do errands</li><li>• ride my bike three times a week, increasing the distance slightly each week until I reach 10K</li><li>• ride 10K once a week for three weeks prior to the race</li></ul>
Reward	a new gel seat for my bike



continued...



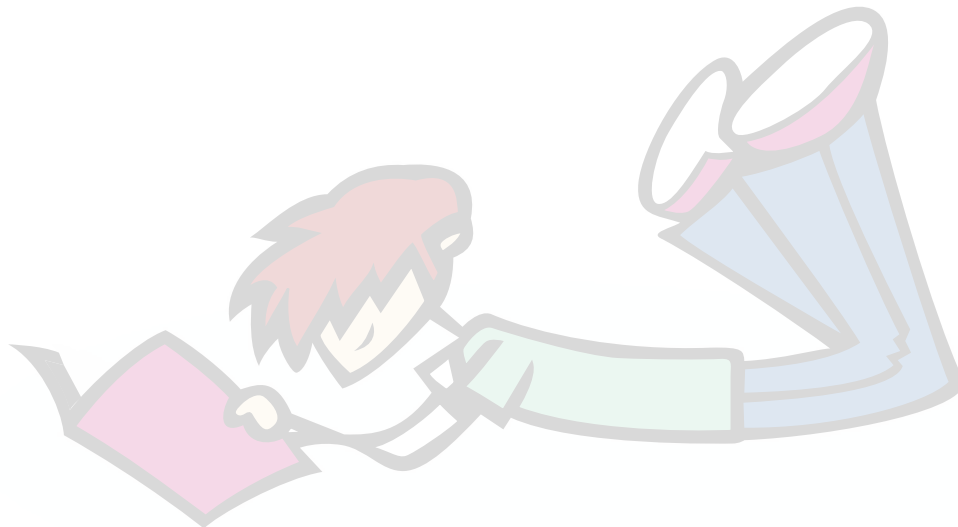
## My Goals (continued)

### Diet

<b>Goal</b>	to stop eating so much junk food and eat only healthy snacks
<b>Time</b>	by the end of four weeks
<b>How</b>	<ul style="list-style-type: none"> <li>• compile a list of healthy snacks I like and ask my parents to buy them next time they buy groceries</li> <li>• prepare my snacks ahead of time</li> </ul>
<b>Reward</b>	a non-healthy snack (e.g., chips, fries, chocolate bar) once a week

### Reading

<b>Goal</b>	to read all the Harry Potter Books
<b>Time</b>	from January to June
<b>How</b>	<ul style="list-style-type: none"> <li>• read one book a month</li> <li>• reserve the books at the library</li> <li>• save my allowance to buy the books</li> <li>• look for the books at second-hand book stores</li> <li>• trade books with my friends</li> </ul>
<b>Reward</b>	watch the Harry Potter movies







# Language

## WORD SEARCH Answers



D	E	H	C	I	R	N	E	N	M	Y	G	C	O	P
Y	G	R	E	N	E	F	L	I	T	A	F	A	E	L
A	T	O	F	U	F	A	U	M	L	I	T	R	A	A
T	N	A	L	P	U	R	N	A	M	N	I	B	T	Y
M	E	A	T	S	N	M	C	T	I	U	U	O	H	E
E	S	N	A	C	K	E	H	I	N	T	R	H	A	S
M	I	L	K	L	T	R	H	V	E	R	F	Y	S	I
Y	E	G	E	T	A	B	L	E	R	I	H	D	N	C
H	T	L	A	E	H	F	O	R	A	E	E	R	I	R
L	J	U	N	K	F	O	O	D	L	N	A	A	A	E
N	I	E	T	O	R	P	I	F	E	T	R	T	R	X
A	N	I	M	A	L	P	E	E	L	S	T	E	G	E

The words listed below are hidden in the puzzle. They might appear across, backwards, up, or down. Can you find them all?

- |              |           |          |           |
|--------------|-----------|----------|-----------|
| ANIMAL       | FAT       | LUNCH    | PROTEIN   |
| CARBOHYDRATE | FRUIT     | MEAT     | SLEEP     |
| EAT          | FUN       | MILK     | SNACK     |
| ENERGY       | GRAINS    | MINERAL  | TOFU      |
| ENRICHED     | HEART     | NUTRIENT | VEGETABLE |
| EXERCISE     | HEALTH    | PLANT    | VITAMIN   |
| FARMER       | JUNK FOOD | PLAY     |           |

The unused letters spell a secret message. Put them in the spaces below to discover what it is.

M Y G O A L I S H E A L T H F O R L I F E



Name: \_\_\_\_\_

Date: \_\_\_\_\_

# WORD SEARCH

D	E	H	C	I	R	N	E	N	M	Y	G	C	O	P
Y	G	R	E	N	E	F	L	I	T	A	F	A	E	L
A	T	O	F	U	F	A	U	M	L	I	T	R	A	A
T	N	A	L	P	U	R	N	A	M	N	I	B	T	Y
M	E	A	T	S	N	M	C	T	I	U	U	O	H	E
E	S	N	A	C	K	E	H	I	N	T	R	H	A	S
M	I	L	K	L	T	R	H	V	E	R	F	Y	S	I
Y	E	G	E	T	A	B	L	E	R	I	H	D	N	C
H	T	L	A	E	H	F	O	R	A	E	E	R	I	R
L	J	U	N	K	F	O	O	D	L	N	A	A	A	E
N	I	E	T	O	R	P	I	F	E	T	R	T	R	X
A	N	I	M	A	L	P	E	E	L	S	T	E	G	E

The words listed below are hidden in the puzzle. They might appear across, backwards, up, or down. Can you find them all?

- ANIMAL
- CARBOHYDRATE
- EAT
- ENERGY
- ENRICHED
- EXERCISE
- FARMER

- FAT
- FRUIT
- FUN
- GRAINS
- HEART
- HEALTH
- JUNK FOOD

- LUNCH
- MEAT
- MILK
- MINERAL
- NUTRIENT
- PLANT
- PLAY

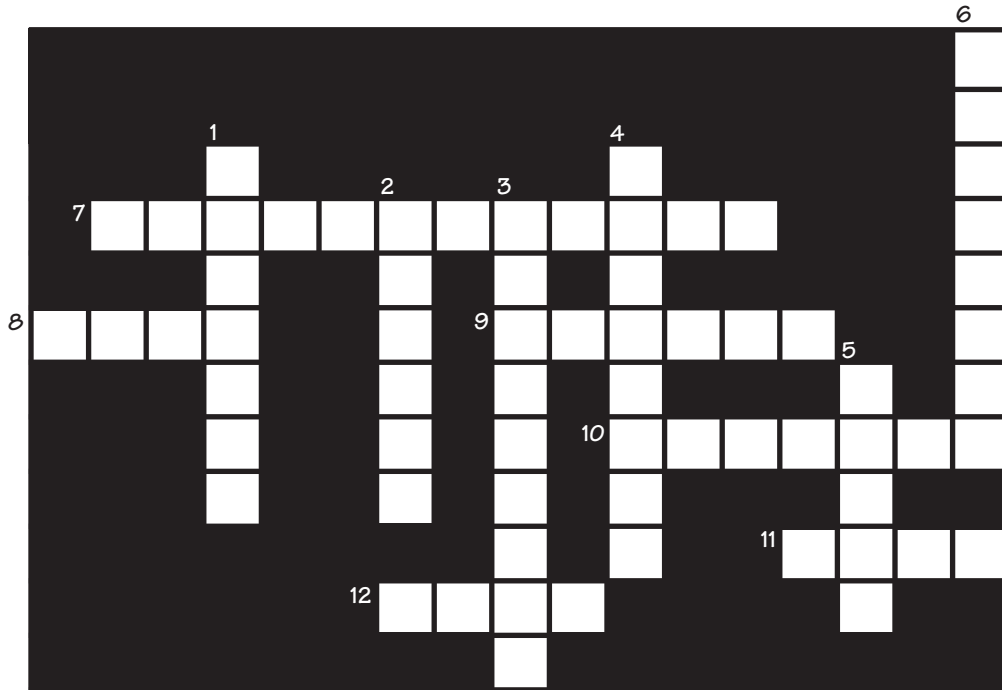
- PROTEIN
- SLEEP
- SNACK
- TOFU
- VEGETABLE
- VITAMIN

The unused letters spell a secret message. Put them in the spaces below to discover what it is.

\_\_\_\_\_



# CROSSWORD PUZZLE



## DOWN

- 1 **Macro-nutrient** essential to build and repair muscle tissue
- 2 Physical and mental well-being
- 3 Process through which foods are broken down into simple substances that can be used by cells in the body
- 4 In correct proportion
- 5 Food that grows from a fertilized flower
- 6 Sugar found in fruits and honey

## ACROSS

- 7 **Macro-nutrient** that provides us with most of our energy
- 8 Edible flesh of animals
- 9 Seeds of cereal plants
- 10 Measure of body energy
- 11 Nourishing liquid produced by lactating mammals to feed their young
- 12 Essential to the production of red cells (that carry oxygen in our blood)





## Language

WORD MATCH  
Answers

In column 1, write the number of the definition that you think matches the word in column 2.

9	balanced diet	1	process through which foods are broken down into simple substances that can be used by cells in the body
8	calorie	2	the parts of food from plants that we cannot digest, and that assist in the passage of waste through the intestines
5	carbohydrate	3	complex sugar that provides us with energy over a long period of time
3	starch	4	high calorie, high fat, high sugar, or high salt food with little or no nutrient value
1	digestion	5	<b>macro-nutrient</b> that provides us with most of our energy
12	vitamin D	6	<b>macro-nutrient</b> essential to build and repair muscle tissue
2	fibre	7	fats that tend to be liquid at room temperature and mostly come from plants
4	junk food	8	a measure of body energy obtained from fats, carbohydrates, and proteins
11	metabolism	9	eating a variety of foods that meet our nutritional needs
13	nutrition	10	fats that remain solid at room temperature and are generally of animal origin
6	protein	11	the chemical and physical processes in our bodies that continuously convert nutrients into energy, body structure, and waste
7	polyunsaturated fats	12	a <b>micro-nutrient</b> , found in food or produced by the skin, essential to the absorption of calcium
10	saturated fats	13	the process by which the body converts food nutrients into energy
14	vitamin A	14	a <b>micro-nutrient</b> essential to the health of our eyes



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## WORD MATCH

In column 1, write the number of the definition that you think matches the word in column 2.

	<b>balanced diet</b>	<b>1</b>	process through which foods are broken down into simple substances that can be used by cells in the body
	<b>calorie</b>	<b>2</b>	the parts of food from plants that we cannot digest, and that assist in the passage of waste through the intestines
	<b>carbohydrate</b>	<b>3</b>	complex sugar that provides us with energy over a long period of time
	<b>starch</b>	<b>4</b>	high calorie, high fat, high sugar, or high salt food with little or no nutrient value
	<b>digestion</b>	<b>5</b>	<b>macro-nutrient</b> that provides us with most of our energy
	<b>vitamin D</b>	<b>6</b>	<b>macro-nutrient</b> essential to build and repair muscle tissue
	<b>fibre</b>	<b>7</b>	fats that tend to be liquid at room temperature and mostly come from plants
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	<b>polyunsaturated fats</b>	<b>12</b>	a <b>micro-nutrient</b> , found in food or produced by the skin, essential to the absorption of calcium
	<b>saturated fats</b>	<b>13</b>	the process by which the body converts food nutrients into energy
	<b>vitamin A</b>	<b>14</b>	a <b>micro-nutrient</b> essential to the health of our eyes





## Language

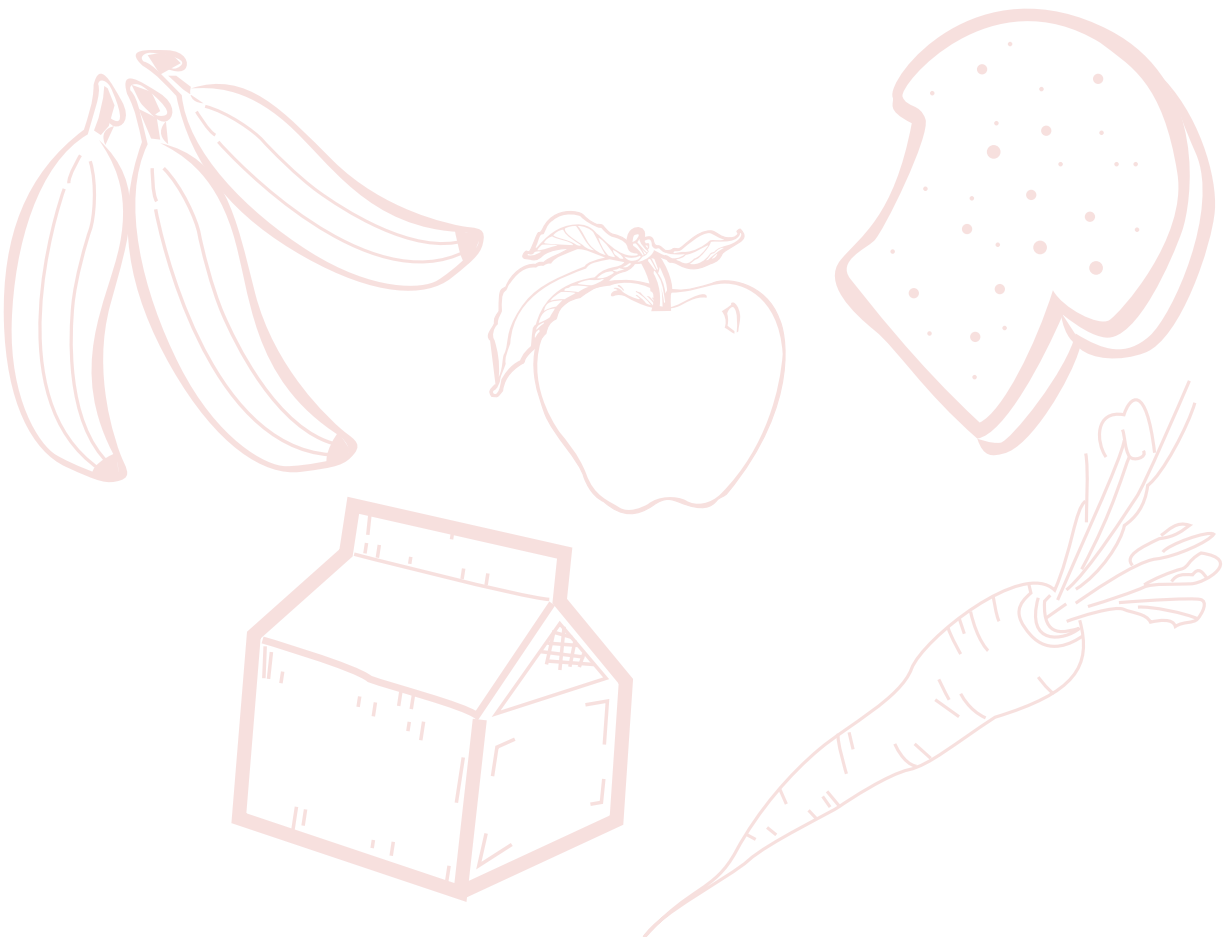


# A HEALTHY SNACKS RECIPE BOOK

Make a recipe book of favourite healthy snacks to eat and drink.

## Instructions

- 1 Ask students to bring a copy of their favourite healthy recipe from home.
- 2 Create a scrap book of these recipes for your class. Make copies and distribute them to students.





## Language

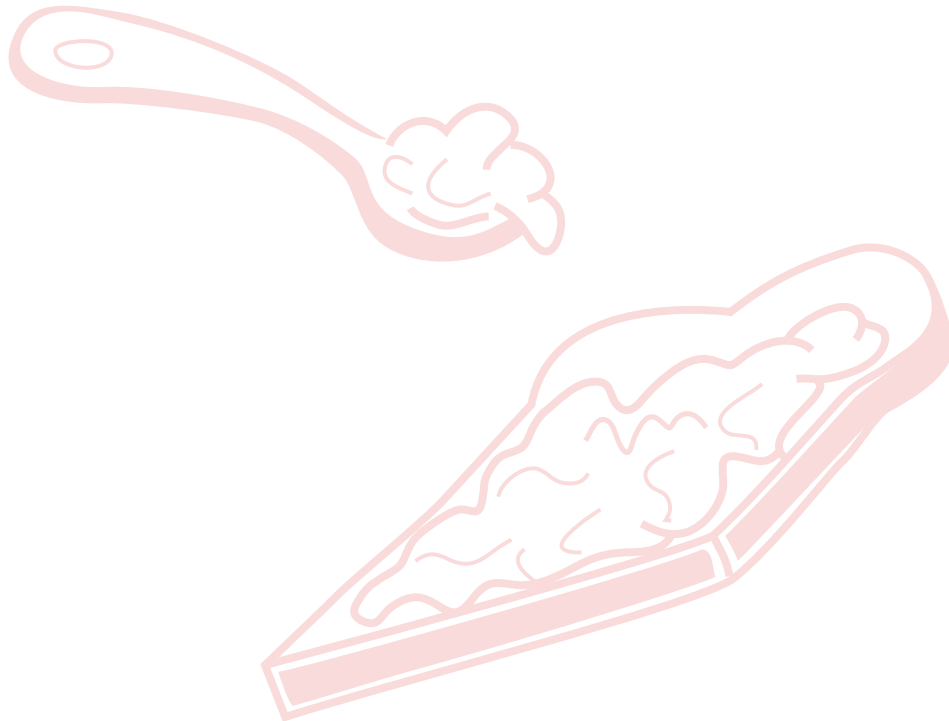


# THE SILLY SANDWICH BOOK

Have students design healthy sandwiches that include foods from all four food groups, but that they wouldn't want to eat. For example, they might contain the following ingredients:

- pumpernickel bread
- Gorgonzola cheese
- pig's tongue
- watermelon
- garlic bread
- head cheese
- strawberries
- tahini

Have students share their invented sandwiches with the rest of the class.





Name: \_\_\_\_\_

Date: \_\_\_\_\_

## BURNING OFF CALORIES

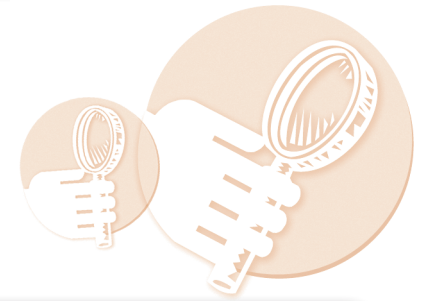
How much exercise do you need to burn off the calories gained from eating a small bag of potato chips? Use the chart below to determine the amount and type of exercise you would need to do to burn off the extra calories.

On average, a small bag of chips (28.3 grams or 1 oz.) contains 152 calories.

4 calories per minute	7 calories per minute	10 calories per minute
slow bicycling	moderate bicycling	fast bicycling
slow walking	brisk walking	vigorous walking
	aerobics	jogging
	basketball	running
	swimming	vigorous swimming
	downhill skiing	cross-country skiing
	singles tennis	skipping rope

Use this space for your calculations





## PORTION POSTER

This activity helps students visualize the size of food portions as they make a poster of a menu for one meal, using *Canada's Food Guide* as a reference, and sporting items to measure food portions.

### Instructions

- 1 On their poster, students can draw or paste pictures of the foods in the menu.
- 2 Beside each food, have students place an image of a sporting item that represents one serving of that food. For example, a picture of a softball (to represent one cup) beside a green salad.

*hockey puck* = half a bagel, pita, or naan bread, or 1 slice of bread

*tennis ball* = one medium fruit (1/2 cup / 175 ml)

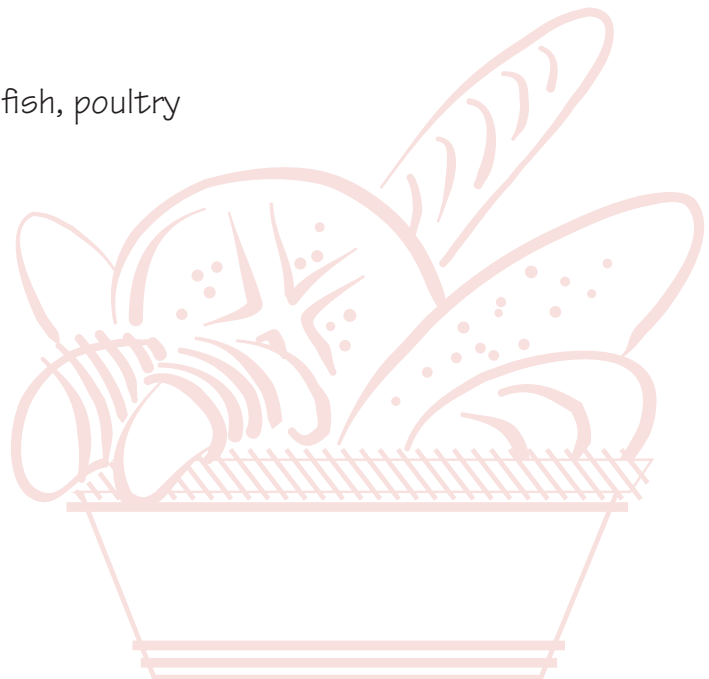
*softball* = 1 cup / 250 ml salad

*2 dominoes* = 1-1/2 oz / 50 g cheese

*1-cup measuring cup* = glass of milk

*deck of cards* = 2-1/2 oz / 75 g red meat, fish, poultry

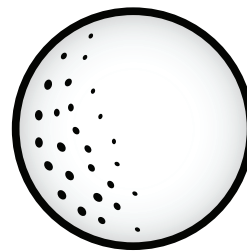
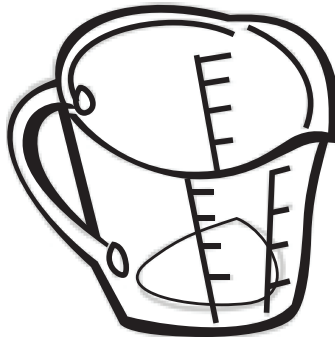
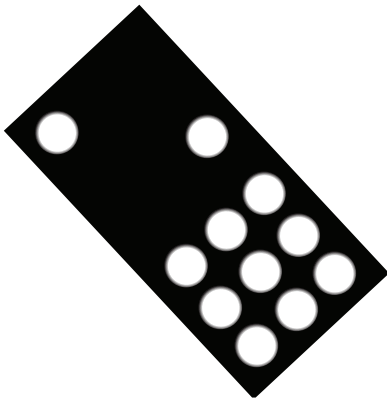
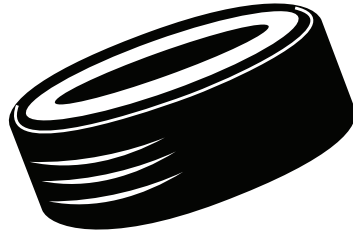
*golf ball* = 2 tbsp / 30 ml peanut butter



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## PORTION POSTER



*hockey puck = half a bagel, pita, or naan bread, or 1 slice of bread*

*tennis ball = one medium fruit (1/2 cup / 175 ml)*

*softball = 1 cup / 250 ml salad*

*2 dominoes = 1-1/2 oz / 50 g cheese*

*1-cup measuring cup = glass of milk*

*deck of cards = 2-1/2 oz / 75 g red meat, fish, poultry*

*golf ball = 2 tbsp / 30 ml peanut butter*





# General Activity

## RIDDLES

### Answers



- 1 I have many eyes, but no mouth or nose. What am I? potato
- 2 I have ears but cannot hear. What am I? corn
- 3 You can't drown me, but I'll die out in the field. What am I? fish
- 4 Monkeys like to eat me. What am I? banana
- 5 I come from a plant, yet I belong to the Meat and Alternatives food group. What am I? beans
- 6 I give you lots of milk. What am I? cow
- 7 You can fill my pocket with food then eat me. What am I? pita bread
- 8 I'm called a butter, but I grow on the roots of a plant. What am I? peanut
- 9 I am a fruit that can be red or yellow or green and I grow on a tree. What am I? apple
- 10 I am made from grain and you eat me in the morning. What am I? cereal



apple



banana



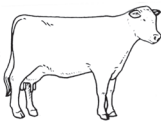
beans



cereal



corn



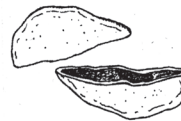
cow



fish



peanut



pita bread



potato



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## RIDDLES

- 1 I have many eyes, but no mouth or nose. What am I? \_\_\_\_\_
- 2 I have ears but cannot hear. What am I? \_\_\_\_\_
- 3 You can't drown me, but I'll die out in the field. What am I? \_\_\_\_\_
- 4 Monkeys like to eat me. What am I? \_\_\_\_\_
- 5 I come from a plant, yet I belong to the Meat and Alternatives food group. What am I? \_\_\_\_\_
- 6 I give you lots of milk. What am I? \_\_\_\_\_
- 7 You can fill my pocket with food then eat me. What am I? \_\_\_\_\_
- 8 I'm called a butter, but I grow on the roots of a plant. What am I? \_\_\_\_\_
- 9 I am a fruit that can be red or yellow or green and I grow on a tree. What am I? \_\_\_\_\_
- 10 I am made from grain and you eat me in the morning. What am I? \_\_\_\_\_



apple



banana



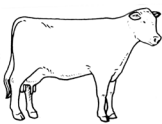
beans



cereal



corn



cow



fish



peanut



pita bread

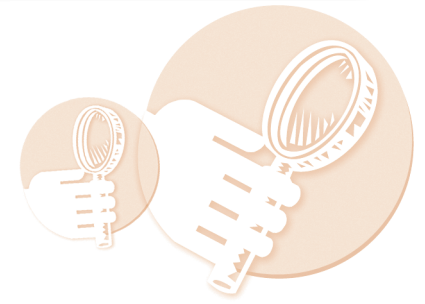


potato



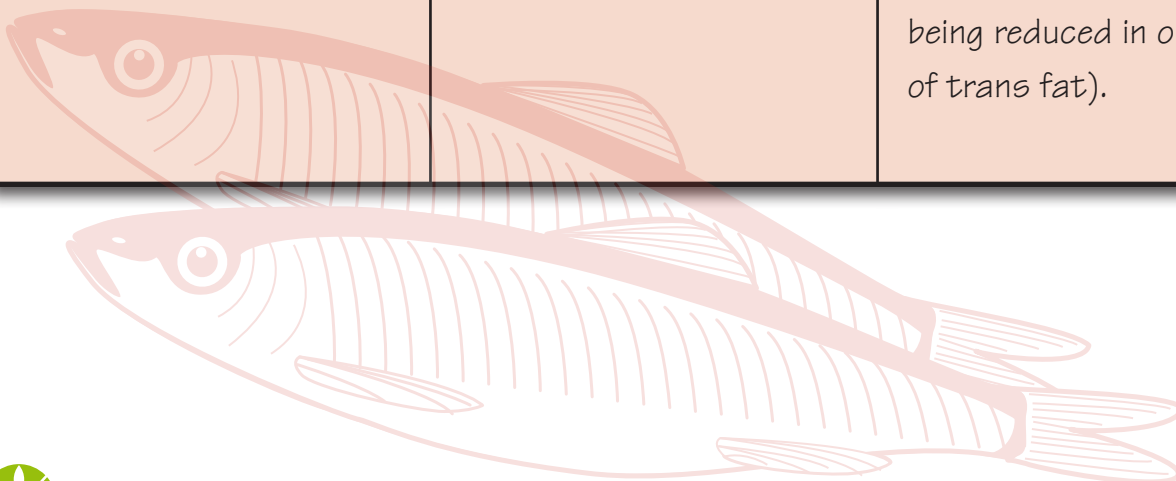


# Appendix 1



## FAT FACTS

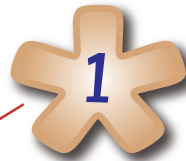
Unsaturated Fats	Saturated Fats	Trans Fats
<p>Unsaturated fats are good for our health. They help prevent heart diseases and stroke. We should try to use these fats when preparing food. Normally liquid at room temperature, these fats are found in plants and fish. There are two types of unsaturated fats: monosaturated and polysaturated fats (omega-3 and omega-6).</p>	<p>Small amounts of saturated fats are essential to our health, but too much increases our risk for heart disease and stroke. Normally solid at room temperature, these fats are found in animal products such as meat, eggs, and dairy products (except skim milk products). They are also found in palm and coconut oils and are often used in commercial baked goods.</p>	<p>Trans fats are mostly manufactured products. They are found in margarine, shortening, and all oils that are hydrogenated. Your body does not need them. Trans fats increase our risk of heart disease and stroke more than saturated fats do. You should eat as few trans fats as possible, by avoiding commercially fried foods and high-fat bakery products (unless they are identified as being reduced in or free of trans fat).</p>





# Appendix 2

## FOOD PACKAGING—WHAT TO LOOK FOR



The amount of each nutrient in the cereal is based on the serving size identified at the top. “% Daily Value” shows if the cereal has a lot or a little of that nutrient per serving, based on Canada’s daily dietary recommendations.

**Nutrition Facts**  
Per 34 g (1 cup)  
**Calories** 120

	Amount	% Daily Value
<b>Fat</b>	3 g	5%
Saturated	1 g	5%
+ Trans	1 g	
Cholesterol	0 mg	
Sodium	220 mg	9%
Potassium	55 mg	2%
<b>Carbohydrate</b>	27 g	9%
Fibre	1 g	3%
Sugar	14 g	
<b>Protein</b>	1 g	
<hr/>		
Vitamin A		10%
Vitamin C		10%
Calcium		5%
Iron		
Vitamin D		10%
Thiamine		20%
Riboflavin		20%
Niacin		20%
Vitamin B6		20%
Folic Acid		20%
Vitamin B12		20%
Zinc		10%

**Ingredients:**  
CORN FLOUR, SUGAR, CORN SYRUP, OAT FLOUR, PARTIALLY HYDROGENATED VEGETABLE OIL, MODIFIED CORN STARCH, SALT, SODIUM ALGINATE, ICING SUGAR, CALCIUM CARBONATE, BAKING SODA, SODIUM CITRATE, NATURAL AND ARTIFICIAL FLAVOUR, CITRIC ACID, MALIC ACID, YELLOW #6, RED #40, WHEAT STARCH, VITAMINS AND MINERALS: IRON, VITAMIN B6, VITAMIN B2 (RIBOFLAVIN), VITAMIN B1 (THIAMINE), NIACIN, VITAMIN B12, FOLIC ACID, VITAMIN C, ZINC, VITAMIN A, VITAMIN D.



The order in which ingredients are listed indicates their relative proportion by weight, from the largest to the smallest.

### Basic Label-Reading

When you buy a packaged food product, such as this box of cereal, **the label** will give you the following information:

- 1 Common name of the food
- 2 Nutrition Facts table
- 3 List of ingredients
- 4 Best-before date
- 5 Dealer name and address
- 6 Net quantity inside the package

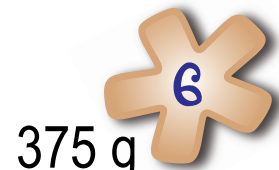


This is the date by which the unopened and properly stored container should be used. After this date, the food may lose some nutritional value or qualities such as flavour or texture.  
**When in doubt, throw it out!**

BEST BEFORE 10-06-2011  
MEILLEUR AVANT



**Yummy Mills Canada Inc.**  
Rise'n Shine, Alberta, Canada T0A 2M0  
[www.yummymills.ca](http://www.yummymills.ca) 1•800•yum•mmy



375 g





## GLOSSARY

**additives** *substances added to food to preserve or improve flavour, colour or appearance*

**animal** *any living organism, except a plant or bacterium, that is usually able to move on its own but is not able to make its own food*

**balanced diet** *eating a variety of foods that meet our nutritional needs*

**bones** *the pieces of hard tissue that form the skeleton in vertebrates*

**calorie** *a measure of body energy, expressed in units of heat, that is obtained from the nutrients of fats, carbohydrates, and proteins*

**Canada's Food Guide** *a guide to healthy eating developed by Health Canada*

**carbohydrates** *organic compounds of carbon, hydrogen, and oxygen including sugars, starches, and celluloses that supply energy to the body*

**cell** *the basic unit of all parts of living things*

**cholesterol** *a fat-like substance found in every animal cell*

**convenience food** *food in which some of the preparation has been completed before it is sold*

**crops** *plants grown to produce food or other products used by people*

**diet** *the normal foods that people and animals eat*

**digestion** *the process through which foods are converted by the body into simple substances that can be utilized by individual cells*

**energy** *a person's force, or capacity for strenuous activity*

**enriched food** *foods to which vitamins and minerals have been added to replace those lost in processing*

**enzyme** *a substance that either speeds up or slows down a biological reaction*

**continued...**





**exercise** activity for the purpose of training or developing the mind or body

**expiry date** date on packaged food after which food can be expected to deteriorate

**farm** an area of land used to grow crops or raise animals

**farmer** a person who grows crops or raises animals on a farm

**fat** solid or semi-solid oily substance formed of fatty acids and found in animal tissue and in some plant seeds

**fibre** the indigestible parts of food from plants that assist in the passage of waste through the intestines

**fortified food** a food with vitamins and minerals added to a level of nutrition not normally found in that food

**fructose** simple sugar found in honey and fruit

**fruit** the seed bearing part of plants that develop from fertilized flowers

**glucose** a simple sugar containing six carbon atoms, that is an important energy source in living organisms

**grain** a seed, especially from a cereal plant

**health** physical and mental well-being

**junk food** high calorie, high fat, high sugar, or high salt foods with little or no nutrient value

**liver** a large organ near the stomach that secretes bile and manufactures cholesterol

**livestock** domestic animals raised on a farm for human use

**macro-nutrients** nutrients that our bodies need in large amounts, such as carbohydrates, fats and proteins

**malnutrition** undernourishment as a result of insufficient food or improper diet

continued...



**meat** *animal flesh used as food*

**metabolism** *the chemical and physical processes in our bodies that continuously convert nutrients into energy, body structure, and waste*

**micro-nutrients** *nutrients that our bodies need in small amounts, such as vitamins and minerals*

**milk** *liquid produced by female mammals to nourish their young*

**mineral** *a naturally occurring inorganic compound*

**nutrient** *a substance that is necessary for the functioning of the human body*

**nutrition** *the process by which the body converts food nutrients into energy*

**plant** *a living organism that cannot move on its own but can synthesize its own food*

**preservative** *ingredient that prevents or inhibits food spoilage*

**protein** *naturally occurring compounds composed of amino acids, which are essential parts of all living cells*

**sandwich** *meat and/or vegetables encased in bread*

**saturated fats** *fats that remain solid at room temperature, and are generally of animal origin*

**trans fats** *naturally present in small amounts in certain foods, most trans fats are created when a manufacturing process turns liquid oil into a semi-solid form, such as margarine and shortening*

**unsaturated fats** *fats that tend to be liquid at room temperature, and come mostly from vegetables*

**vegetable** *an edible plant*

**vitamin** *an organic compound found in foods that is essential to good health*

