# Nutrition Resource Kits 

## Grade Five - Lesson Plans

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## Introduction

This Nutrition Resource Kit is designed for Grade 5. The manual is a curriculum-based tool that is divided into sections that promote healthy living, following the Alberta Education Health and Life Skills Curriculum. Each section includes: Background Information for Teachers, References, and Student Activities. Also included is basic information on Canada's Food Guide, which provides a review of material covered in primary grades, as well as a knowledge base for material to be covered in intermediate grades.

The purpose of this manual is to promote and teach a healthy lifestyle. There are three major components of a healthy lifestyle: eating well, positive body image and being physically active. A combination of these could prevent many adverse health effects and even some diseases. Healthy eating, physical activity and a positive body image should be encouraged early in life to develop lifelong commitments to health. Learning to make and enjoy healthy food selections early in life can greatly impact long-term health.

Alberta Health Services has developed a comprehensive list of provincial resources that have been approved for use in schools across Alberta. To receive this School Nutrition Education Resource List please email the Alberta Health Services Nutrition Education Resource Team at: nutritionresources@albertahealthservices.ca. The Nutrition Education Resource team can also provide more information on the nutrition services available to schools and answer any questions regarding school resources.

## Outcome Objectives*

## Students will be able to:

W-5.1 Examine the impact of physical activity, nutrition, rest and immunization on the immune system.
W-5.4 Examine the impact that changes in interests, abilities and activities may have on body image.
W-5.5 Examine ways in which healthy eating can accommodate a broad range of eating behaviours.
W-5.6 Examine and evaluate the impact of caffeine, alcohol, drugs, on personal health/wellness.
R-5.9 Explore respectful communication strategies that foster group/team development.
$\mathbf{L}$ - 5.2 Affirm personal skill development.

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## Background Information for Teachers: Nutrition

## Canada's Food Guide

Healthy eating is a very important part of a healthy lifestyle. Eating Well with Canada's Food Guide is the tool used to teach healthy eating patterns and practices.

Canada's Food Guide provides an easy framework for healthy eating through the use of a colourful rainbow used to demonstrate the four food groups (Vegetables and Fruit, Grain Products, Milk and Alternatives and Meat and Alternatives). Just as different colours make up a rainbow, different food groups are the basis for healthy eating. Healthy eating is the overall pattern of foods eaten, and not only one food, one meal or one day's meals.

Canada's Food Guide describes both the amount (quantity) and type (quality) of food people need as part of a healthy eating pattern. The eating pattern provided by Canada's Food Guide promotes overall health by ensuring that nutrient needs are met each day, and by helping reduce the risk of obesity and other nutrition related diseases.


#### Abstract

Amount: Canada's Food Guide is divided into categories that provide age and gender specific recommendations on the amount of food that should be eaten from each food group each day. Table 1 below provides the recommended number of food guide servings required from each food group for children from 9 years to 13 years of age.


Table 1: Number of Food Guide Servings

|  | Vegetables and <br> Fruit | Grain Products | Milk and <br> Alternatives | Meat and <br> Alternatives |
| :--- | :---: | :---: | :---: | :---: |
| Age 9-13 | 6 | 6 | $3-4$ | $1-2$ |

Note: Canada's Food Guide provides examples of what counts as one serving size from each food group. The serving size is not intended to necessarily represent what would be eaten in one sitting.

It is also important to include a small amount of unsaturated fat in the diet each day for essential fatty acids. $30-45 \mathrm{~mL}$ or 2-3 Tbsp of added oils and fats are part of the eating pattern.

## Type:

The food guide also provides statements on the types of foods that should be chosen from the four food groups in order to; meet all nutrient needs (i.e. vitamins, minerals and other nutrients), limit energy intake (i.e. limit excess calorie intake), limit sodium (salt) intake, limit fat intake, and limit sugar intake. The following are the quality tips from each food group:

## Vegetables and Fruit

- Eat at least one dark green and one orange vegetable each day
- Choose vegetables and fruit prepared with little or no added fat, sugar or salt
- Have vegetables and fruit more often than juice


## Grain Products

- Make at least half of your grain products whole grain each day
- Choose grain products that are low in fat, sugar or salt


## Milk and Alternatives

- Drink skim, $1 \%$, or $2 \%$ milk each day
- Select lower fat milk alternatives


## Meat and Alternatives

- Have meat alternatives such as beans, lentils and tofu often
- Eat at least two Food Guide Servings of fish each week
- Select lean meat and alternatives prepared with little or no added fat or salt

The Food Guide also encourages people to enjoy a variety of foods from the four food groups and to drink water to satisfy thirst without adding extra calories to the diet.

People of different ages and at different stages of life have specific nutrient needs in addition to following Canada's Food Guide. The section of the Food Guide titled "advice for different ages and stages" provides additional messages and guidance for children, women of childbearing age and adults over 50 .

Under "read the label", the Food Guide encourages consumers to use the Nutrition Facts table, and to compare and choose products which contain less fat, saturated and trans fats, sugar and sodium.

The purple "eat well" box on the back page of the Food Guide discusses limiting foods and beverages high in calories, fat, sugar or salt (sodium). When teaching Canada's Food Guide use terms such as choose least often to talk about foods high in fat, sugar or salt. The choose least often should be limited but can be enjoyed at times. What matters most is how people eat on a regular basis.

More information about Eating Well with Canada's Food Guide is available at: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index e.html

Please refer to the Alberta Nutrition Guidelines for Children and Youth for more information on creating healthy school environments and promoting healthy food choices and healthy attitudes about food. A copy of the Alberta Nutrition Guidelines for Children and Youth can be found at: http://www.albertahealthservices.ca/2929.asp

## Discovering the Food Groups

Healthy eating includes eating food from each of the four food groups every day. A good place to start is learning what the four food groups are and what foods fit into each food group.

When discussing the food groups, there will be many foods that do not fit into any of the four food groups. It is important to remember to use terms such as everyday foods and sometimes foods when discussing these foods. Emphasize that all foods fit into a healthy eating pattern; however some foods should be chosen less often.

## 1. Vegetables and Fruit

The outside and most prominent arc of the food guide rainbow represents the Vegetables and Fruit food group. Being the largest arc of the rainbow is a visual way to emphasize the importance vegetables and fruits play in a healthy eating pattern. Vegetables and fruit come in many forms (fresh, frozen and canned), which should be emphasized.

Vegetables and fruits are usually low in fat and calories, and are the source of many important nutrients, such as vitamins, minerals and fiber.

There are many products with "vegetable" and "fruit" in their names, or written on their packaging. However, many of these products are actually very high in fat, sugar or salt. Examples include candy, fruit jams, fruit drinks that are not labeled $100 \%$ juice, or vegetable chips. These products may come up when discussing vegetables and fruit. It is important to reinforce the idea of variety and sometimes food when discussing these foods.

## What is One Food Guide Serving?

- $125 \mathrm{~mL}(1 / 2$ cup) fresh, frozen or canned vegetables
- $125 \mathrm{~mL}(1 / 2$ cup) cooked leafy green vegetables
- 250 mL ( 1 cup) raw leafy green vegetables
- 125 mL ( $1 / 2 \mathrm{cup}$ ) fresh, frozen or canned fruit
- 125 mL ( $1 / 2$ cup) $100 \%$ fruit juice


## 2. Grain Products

The second most prominent arc in the rainbow represents the Grain Products food group. Relative to some of the other food groups, a large number of servings are recommended from this group. Many different foods fall into the Grain Products category, providing many essential nutrients, therefore variety is important to emphasize.

Grain products include all grains, cereals, pasta, rice and products that are made with grain flour (including corn flour)

Choosing more grain products that are whole grain will help increase fiber intake. Whole grain products are made with grains that have not been refined, and therefore contain all nutrients naturally found in the grain, including many essential nutrients needed for health. Grain products that are not whole grain are products that are made with refined grains. This means that they have been processed and are missing parts of the grain, therefore missing some naturally occurring
essential nutrients. Choosing half of your grain products as whole grains will help ensure nutrient needs are met!

## What is one Food Guide Serving?

- 1 slice of bread
- $1 / 2$ bagel
- $1 / 2$ pita or tortilla shell
- $125 \mathrm{~mL}(1 / 2$ cup $)$ cooked rice, bulgur or quinoa
- $175 \mathrm{~mL}(3 / 4 \mathrm{cup})$ hot cereal
- 30 g cold cereal
- $125 \mathrm{~mL}(1 / 2$ cup) cooked pasta or couscous

Hurray For Fibre! - Dietary fibre is found in plant-based foods such as whole grain breads, cereals, vegetables, fruits, legumes (beans, peas, and lentils), nuts and seeds. Fibre cannot be digested and therefore passes through our digestive system. It helps maintain a healthy digestive tract!

## 3. Milk and Alternatives

The blue arc in the rainbow represents the Milk and Alternatives food group. Although few Food Guide Servings are recommended from this food group each day, this group provides many key nutrients that are important for developing strong bones, helping with proper growth and development, and helping keep our teeth strong. Calcium is a commonly known nutrient, which is provided along with other essential nutrients from the Milk and Alternatives food group.

The Milk and Alternatives food group includes milk, fortified soy beverage (fortified with Vitamin D and Calcium), canned milk, powdered milk, yogurt and cheese.

## What is one Food Guide Serving?

- 250 mL ( 1 cup ) milk or fortified soy beverage
- $125 \mathrm{~mL}(1 / 2$ cup) canned milk
- $175 \mathrm{~mL}(3 / 4$ cup $)$ yogurt or kefir
- $11 / 2 \mathrm{oz}(50 \mathrm{~g})$ cheese


## 4. Meat and Alternatives

The smallest arc of the food guide rainbow represents the Meat and Alternatives food group. Like the Milk and Alternatives food group, large numbers of servings per day are not recommended. These foods do however provide many key nutrients that are necessary for proper growth and development.

All foods from this group are high in protein; protein is the building block for cell growth and development and helps our bodies fight infections. Fat is also an important component of Meat and Alternatives; it gives us energy and essential vitamins. Red meats are a high source of iron needed for healthy blood. Legumes are high in carbohydrate and fibre.

Healthy tips to follow when choosing foods from the Meat and Alternatives group: Try removing excess fat from beef, pork and chicken. Eat bacon, sausages, bologna, and breaded and fried meat
less often. Enjoy lean cuts of meat and fish. Choose foods like baked beans, split pea soup or lentil casserole.

## What is one Food Guide Serving?

- $21 / 2$ oz ( 75 g ) or $1 / 2$ cup ( 125 mL ) cooked fish, shellfish, poultry, lean meat
- $175 \mathrm{~mL}(3 / 4 \mathrm{cup})$ cooked legumes
- 150 g or $175 \mathrm{~mL}(3 / 4 \mathrm{cup})$ tofu
- 2 eggs
- $30 \mathrm{~mL}(2 \mathrm{Tbsp})$ peanut butter
- $60 \mathrm{~mL}(1 / 4$ cup) shelled nuts and seeds

Note: Serving sizes recommended by the Food Guide do not necessarily reflect the amount eaten at a meal or a snack. Children may have more than one serving at a time. For example, 250 mL (one cup) of spaghetti, one pita or one hamburger bun each count as two servings of Grain Products. 250 mL (one cup) of fruit is equivalent to 2 servings of Vegetables and Fruit.

## Eating Behaviours

## Ways in which healthy eating can accommodate a broad range of eating behaviours.

When it comes to healthy eating, no two people are exactly alike. Factors such as age, activity level, health status, allergies, finances and cultural traditions all combine to shape individuals ultimate food choices. For example, Canada's Food Guide recommends different numbers of food guide servings for certain ages and genders.

## Individual preferences

Individuals develop eating habits based partly on culture and family but also on personal likes and dislikes. Some foods become associated with good times, and eating them is linked with a positive experience. Sometimes people eat simply out of habit. The main reason people give for choosing certain foods is usually taste.

## Vegetarianism

There are many different kinds of vegetarians:

| Vegetarian Diet | Foods Eaten | Foods Not Eaten |
| :--- | :--- | :--- |
| Lacto-ovo-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> milk products, eggs | meat, poultry, fish, seafood |
| Lacto-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> milk products | meat, poultry, fish, seafood, eggs |
| Ovo-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> eggs | meat, poultry, fish, seafood, milk <br> products |
| Vegan | grains, legumes, nuts, <br> seeds, vegetables, fruit | meat, poultry, fish, seafood, eggs, <br> milk products, honey, animal by- <br> products (such as gelatin, bouillon <br> cubes) |

People adopt vegetarianism for many different reasons including religious or philosophical beliefs, ethical or economic reasons, environmental concerns, world hunger issues, possible health benefits and taste preferences. Choosing a vegetarian diet requires planning to include essential nutrients. Some essential nutrients are found only in animal products. The more restrictive a diet is, the greater the chance of nutritional deficiencies. Common deficiencies are protein, iron, vitamin B12, vitamin D, calcium and zinc. However, through careful planning and eating a variety of foods, vegetarians usually have no problems consuming the foods essential for good health. It is wise to obtain nutrition information from a Registered Dietitian before starting a vegetarian diet.

## For more information:

Vegetarian Society: http://www.vegsoc.org/ .
Vegetarian Society for Young Veggies: http://www.youngveggie.org/
Health Link Alberta, search "Eating Vegetarian": http://www.healthlinkalberta.ca
About Kids’ Health, search "vegetarian": www.aboutkidshealth.ca

## Cultural food patterns

The Canadian population consists of many different cultural backgrounds. People therefore have the opportunity to choose from a wide variety of foods. People from different parts of the world choose different but equally healthy foods. For example, bread, rice, tortillas and roti are all considered staple grain products in different cultures.

Children's food habits are greatly influenced by their cultural groups' values. The perception of healthy foods differs from one cultural group to another. It is important to be respectful of all value systems and food practices.

## For information on Canada's Food Guide for different cultures:

http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/guide trans-trad-eng.php

## Allergies

A person with food allergies needs to eliminate all sources of that food in their diet. For example, someone who is allergic to milk must avoid milk and also cheese, yogurt, ice cream and any foods that are made with milk products.

People who are allergic to many foods from an entire food group (e.g. Milk Products) will need nutrition counseling to make sure they can get all the nutrition they need in other ways.

People who are allergic to only one food in a food group can simply choose a variety of other foods from within that food group to meet their requirements. For example, someone who is allergic to eggs can get adequate nutrition from the Meats and Alternatives food group by eating a variety of meats, tofu, nuts/seeds and legumes.

Classroom Tip: A close working relationship between teachers and parents is essential to an informed well managed and safe classroom experience for students with allergies. Children and adults alike need to be aware of and sensitive to food allergies.

## Some important points to be aware of are:

- Allergies are an abnormal response to a normal substance.
- Allergic responses are varied and unique to each child.
- Anaphylaxis is a severe allergic response. It can be life threatening.
- Children with allergies/anaphylaxis require close monitoring.
- Common food allergies are milk, wheat, soy, egg, peanut and fish. It is important to remember that even very small amounts of foods can cause a life threatening allergic reaction for children with a severe allergic response (anaphylaxis).


## For more information:

Health Canada: http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/allerg-eng.php

## Medical Conditions

Enjoying a nutritious well-balanced diet starts with Eating Well with Canada's Food Guide. Although there may be slight differences in requirements for some individuals, such as those with diabetes, the basic pattern of eating is the same. Choosing a variety of foods as outlined in the Food Guide is appropriate for the prevention and treatment of many diseases.

For more information:
Heart and Stroke Foundation of Canada, www.heartandstroke.ca
Canadian Diabetes Association, www.diabetes.ca

## Student Activities: Nutrition

| Healthy Eating is Part of Healthy Living |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students explores components of healthy living. |
| Teacher Background <br> Information | - Eating Well with Canada's Food Guide <br> http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index e.html <br> - Eating Well with Canada's Food Guide: A Resource for Educators and <br> Communicators <br> http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index e.html |
| Material Required | - "Healthy Living Word Search" activity sheet and answer key |
| Instructions | 1. Healthy eating, being physically active, drinking enough water, getting <br> enough rest, doing things for enjoyment and relaxation, and enjoying the <br> company of others are all part of having a healthy lifestyle, and also having a <br> healthy immune system. |

2. Ask the class "What does healthy living mean to you?" Write key concepts on the board and try to generate class discussion on each key concept identified (or use those listed below). Stimulate discussion by asking students to cite examples as concepts are identified. Ask the class "Why is healthy living important to you?" and examine the impact of activity, nutrition, and rest on health and the immune system.
3. A healthy lifestyle includes:

- Healthy eating; Canada's Food Guide outlines the food groups that provide nutrients we need to stay healthy, to grow, and to give us energy to work and play.
- Regular physical activity.
- Feeling good about and liking who we are.
- Taking care of our bodies.
- Using safety gear to reduce risk of injury.
- Avoiding behaviours that are harmful to our bodies (e.g. smoking, drug use, etc.).
- Respecting and looking after our bodies.
- Doing what we can to stay healthy.

4. Distribute copies of the 'Healthy Living Word Search' activity sheet. Instruct students to fill in the blanks and complete the word search.
5. Discuss the answers of the fill in the blank portion as a class. Refer to the answer key.

# Healthy Living Word Search 

| Fruits | Image | Beans | Unique |
| :--- | :--- | :--- | :--- |
| Heredity | Different | Physical | Bones |
| Swimming | Grain | Variety | Calories |
| Dietitian |  |  |  |

## Select the correct word from above to complete these sentences about healthy eating. Each word is used only once.

1. Eating a $\qquad$ of healthy foods keeps us feeling great!
2. Regular $\qquad$ activity helps us to maintain a healthy body weight.
3. The mental picture we have of our physical appearance is called our body
4. A professional $\qquad$ is our best source of reliable nutrition information.
5. function, play and grow.
6. $\qquad$ is a high energy activity that uses lots of energy.
7. $\qquad$ belong to the Meat and Alternatives food group.
8. An apple is an example of a serving from the Vegetables and $\qquad$ food group.
9. A main reason why we need Milk and Alternatives is for calcium and vitamin D, which are needed to build healthy $\qquad$ _.
10. Toast belongs in the $\qquad$ Products food group.
11. People from different parts of the world often eat $\qquad$ kinds of nutritious foods.
12. Different body shapes and sizes are determined largely by $\qquad$ .
13. Different body sizes and shapes are among the things that make us $\qquad$ .

Search for the above words in the puzzle below. The word may be spelled backward, forward, up, down, or diagonally.

| A | D | I | F | F | E | R | E | N | T | P | L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B | J | Y | R | E | S | J | W | F | B | C | Z |
| E | Q | P | U | P | H | Y | S | I | C | A | L |
| A | T | M | I | R | N | Q | J | M | H | L | D |
| N | K | A | T | U | S | D | Y | A | G | O | V |
| S | E | F | S | Z | V | T | K | G | R | R | Y |
| S | W | I | M | M | I | N | G | E | A | I | T |
| B | O | J | W | D | B | B | X | K | I | E | E |
| Y | D | I | E | T | I | T | I | A | N | S | I |
| G | L | R | S | A | K | F | C | T | P | E | R |
| S | E | N | C | M | B | P | Y | O | W | M | G |
| A |  |  |  |  |  |  |  |  |  |  |  |
|  | N | I | Q | U | E | A | V |  |  |  |  |

## Healthy Living Word Search

## Answer Key

1. Eating a variety of healthy foods keeps us feeling great!
2. Regular physical activity helps us to maintain a healthy body weight.
3. The mental picture we have of our physical appearance is called our body image.
4. A professional dietitian is our best source of reliable nutrition information.
5. Calories are a measure of food energy. Our bodies need food energy to function, play and grow.
6. Swimming is a high energy activity that uses lots of energy.
7. Beans belong to the Meat and Alternatives food group.
8. An apple is an example of a serving from the Vegetables and Fruits food group.
9. A main reason why we need Milk and Alternatives is for calcium and vitamin D, which are needed to build healthy bones.
10. Toast belongs to the Grain Products food group.
11. People from different parts of the world often eat different kinds of nutritious foods.
12. Different body shapes and sizes are determined largely by heredity.
13. Different body sizes and shapes are among the things that make us unique.

| Imagine That |  |
| :---: | :---: |
| Objectives of Activity | To have students practice meal planning for different situations. |
| Teacher Background Information | - Eating Well with Canada’s Food Guide <br> http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index e.html <br> - Eating Well with Canada’s Food Guide: A Resource for Educators and Communicators http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index_e.html |
| Material Required | - "Imagine That" activity sheet. <br> - Eating Well with Canada's Food Guide |
| Instructions | 1. Divide the class groups of three to four students. <br> 2. Students should rearrange themselves if necessary to allow for discussion among their group. <br> 3. Distribute the "Imagine That" activity sheet and a copy of Canada's Food Guide to each student group. <br> 4. Assign one situation from the activity sheet to each student group. With larger classes, assign each situation to multiple groups. <br> 5. As a team, each student group is asked to imagine themselves in their assigned situation and to practice meal planning and food selection skills. <br> 6. Ask each group to assign one person to record their group's decisions and suggestions. <br> 7. Allow $15-20$ minutes for the groups to work on their situation and to record their suggestions. <br> 8. Ask each group to describe their assigned situation to the rest of the class and outline their suggestions. If more than one student group was assigned the same situation, have them report together, taking turns outlining their team's suggestions. <br> 9. Optional (after all groups have reported to the class): Have students think about and describe how it felt to be part of the team. Were there any challenges due to personal food likes or dislikes of team members? Was it easier to work as a team? Were more suggestions generated because of group efforts? |

## Imagine That Activity Sheet

## Situation 1

You have an older brother in eighth grade and a younger sister in third grade. The three of you live with your mother. You get home from school about two hours before your mother gets home from work. The first thing you usually do is raid the refrigerator for an after-school snack. Since your mother works long hours, she is sometimes too tired to start fixing supper as soon as she walks in the door.

How could your family plan after-school snacks and suppers to be sure you are all sharing responsibility and getting a well-balanced diet? Think of three possible snacks and three easy-to-prepare suppers.

## Situation 2

You have started to pack your own bag lunches this year. Time is short in the morning so you want to make your job as easy as possible. Your mom says you can help choose what goes in your lunch, but insists that the foods have to be good for you.

Make up menus for five different well-balanced bag lunches. Be as imaginative as you can, using a variety of foods in creative ways. Figure out what you can prepare to save time in the morning. Remember that all four food groups should be included in each lunch.

## Situation 3

Your school has just announced that your school day will begin half an hour earlier next year. You already feel rushed trying to dress, eat breakfast and get ready for the bus by 7:30. You have skipped breakfast a few times, but you were so hungry by $9: 30$ that you couldn't concentrate on anything but your stomach. Next year, you will have an even longer wait until lunch.

What can you do to keep from starving by lunchtime? Plan five quick and nutritious breakfasts. Try to include at least three food groups in each breakfast. Remember that you do not have to limit yourself to traditional breakfast foods.

## Situation 4

Your teacher has been talking about your nutrition unit at a teacher's meeting. Other teachers are curious to find out what you have learned. One Grade 2 teacher has invited a few of you to come to his classroom to talk about healthy snacks. You have decided you'll do more than talk. You will also prepare snacks for the Grade 2 class.

Think of ten different snacks you could make for the Grade 2 class. Remember that a good snack should include at least two food groups. Also, think of what advice you would give to the Grade 2 students in selecting healthy snacks.

| Canadian Cuisine |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students increase their awareness of various foods associated with <br> different regions in Canada. |
| Teacher Background <br> Information | N/A |
| Material Required | - "Canadian Cuisine" activity sheet |
| Instructions | 1. Introduce this activity by discussing that Canada is a very large country with <br> many different growing regions and varied terrain. |
|  | - Locally grown foods often become a major part of what people eat. <br> - Specific agricultural conditions are necessary to successfully grow certain <br> types of crops. |
|  | - Factors affecting growing conditions include harshness of winter, rainfall, <br> soil conditions, and available cultivated land. |
| - Proximity to oceans and lakes generally means the local population accesses |  |
| seafood and fish. |  |
| - Proximity to forests and hunting areas may see more people eating wild |  |
| game. |  |

## Canadian Cuisine Activity Sheet

Canada is a vast country. Because of differences in climate, geography, and culture, food habits differ between regions. Take a cross-Canada tour and match up the province with foods produced in each region. Write the name of the correct province in the blanks below.

British Columbia<br>Manitoba<br>New Brunswick<br>Newfoundland<br>The Territories (Yukon, North West Territories, Nunavut)<br>Alberta<br>Ontario<br>Prince Edward Island<br>\section*{Saskatchewan}<br>Quebec<br>Nova Scotia

1. 

country -style flapjacks.
2. $\qquad$ Famous for lobsters and apples.
3. $\qquad$ Famous for its wild rice and Winnipeg Goldeye fish. The Northern part of this province is famous for hunting and fishing.
4. $\qquad$ Known as the premier cereal producing province being especially famous for wheat. Is the recognized home of the Saskatoon berry.
5. $\qquad$ Famous for salt fish (usually cod) and brews (boiled hard bread).
6. $\qquad$ Famous for Canadian Pea Soup, Tortiere which is served on New Years, and Maple Mousse which is a treat served after the boiling-down-period of hard maple syrup.
7. $\qquad$ Known for fish chowders, and large succulent Malpeque oysters.
8. $\qquad$ Known throughout the world for its salmon, and fresh fruit from the Okanogan. Caribou is prize game in the interior of this province.
9. $\qquad$ Well known for all types of ocean and fresh water fish, wild game and wild berries. Famous for Arctic Char and Caribou.
10. $\qquad$ Here you will find all types of vegetable farming and fruit orchards (primarily apples, peaches and cherries). This province is also well known for its dairy farms.
11. $\qquad$ Known to have the largest potatoes and the best salmon in the world.

## "This land is your land, this land is my land"

## Guess the Food's Country of Origin

| Objectives of <br> Activity | To have students increase their awareness of cultural differences in traditional <br> foods and the diversity in eating habits. |
| :--- | :--- |
| Teacher Background <br> Information | N/A |
| Material Required | - "Guess the Food's Country of Origin" activity sheet and answer key <br> - A globe or a world map |
| Instructions | 1. Distribute copies of the "Guess the Food's Country of Origin" activity sheet. |

2. Ask students to complete the activity sheet by matching the foods with the country of origin.
3. Review the answers as a class. As each food's origin is identified, ask for a student to volunteer to come up to the front of the class and find the country of origin on the world map or globe.
4. Ask the students to try to guess the food group to which that food belongs. Provide answers as necessary.
5. Go through the list of foods on the activity sheet, giving as many students as possible a turn at the world map or globe.
6. Discuss how each food could be part of a healthy meal. Remind students that healthy meals consist of foods from all four food groups. Ask the students to think of balanced, healthy meals using each food. For example, an omelet can be had at breakfast with a slice of whole wheat bread, a glass of milk and $1 / 2$ cup of fresh fruit

## GUESS THE <br> COUNTRY'S FOOD ORIGIN



Match each food to the correct country of origin by using a line to connect the pair

## The Food

## Omelet

Tortilla

Bratwurst

Ghee

Gazpacho

Croissants

Baklava

Tofu

Wow Doo

## Banbury

Cakes

## Foods Origin

Greece:
A dessert of layered nut-filled Phyllo pastry.

France:
A buttery, flaky curved bun.

East India:
Clarified butter.

## Japan:

Smooth, white-custard like soybean curd.

Central and Southern America:
Flat corn cakes.

Spain:
Fresh veggie-based cold soup.

France and Ancient Rome:
Egg Dish.

## China:

Dried black beans used in soups and slow cooked dishes.

## England:

Oval pastries filled with dried fruit and spices.

## German:

A variety of sausages that are sold raw but may be spiced, smoked, or cured.

GUESS THE
COUNTRY'S FOOD
ORIGIN (Answer Key)

The Food Foods Origin
Baklava

Greece:
A dessert of layered nut-filled Phyllo pastry.

Does not belong to a Food Group

| Croissants | France: <br> A buttery, flaky curved bun. | Grain Products |
| :---: | :--- | :--- |
| Ghee | East India: <br> Clarified butter. | Does not belong to a Food <br> Group |
| Tofu | Japan: <br> Smooth, white-custard like soybean curd. | Meat and Alternatives |


| Tortilla | Central and Southern America: <br> Flat corn cakes. | Grain Products |
| :--- | :--- | :--- |

Gazpacho Spain:
Fresh veggie-based cold soup.
Vegetables and Fruit

Omelet France and Ancient Rome: Egg Dish.

Meat and Alternatives

## China:

| Wow Doo | China: <br> Dried black beans used in soups and slow <br> cooked dishes. | Meats and Alternatives |
| :---: | :--- | :--- |
| Banbury Cakes | England: <br> Oval pastries filled with dried fruit and <br> spices. | Does not belong to a Food <br> Group |

Bratwurst

## German:

A variety of sausages that are sold raw but may be spiced, smoked, or cured.

Meat and Alternatives

| Foods of the World - Research Poster |  |
| :---: | :---: |
| Objectives of Activity | To have students become aware of the different foods that come from different parts of the world. |
| Teacher Background Information | - http://www.foodbycountry.com |
| Material Required | - Poster board, magazines, markers etc. |
| Instructions | 1. Review types of research materials (such as: books, magazines, encyclopedias and internet). <br> 2. Divide students is groups of 2-3. <br> 3. Assign each group a different country to research (or have each group decide on a country they would like to learn more about). <br> 4. Have the students research the following topics for their country: <br> a. Food grown locally <br> b. Cultural foods <br> c. Their version on a food guide (if there is one) <br> d. Local eating habits. <br> 5. Have groups organize the information onto a poster board using written information, pictures, food packages etc. Encourage creativity! <br> 6. Each group will present their poster to the class. <br> Sample Countries: Italy, Greece, China, Mexico, France, Denmark, Germany, Australia, India, United States, Canada, Brazil, Africa, Japan, etc. |


| Being Heart Smart |  |
| :---: | :---: |
| Objectives of Activity | To have students become aware of heart healthy eating. |
| Teacher Background Information | - Heart and Stroke Foundation - Stroke Facts (Click on "Stroke") http://ww1.heartandstroke.ab.ca/Page.asp?PageID=28\&CategoryID=14 <br> - Heart and Stroke Foundation - Heart Disease Facts (Click on "Heart Disease") http://ww1.heartandstroke.ab.ca/Page.asp?PageID=28\&CategoryID=14 |
| Material Required | - "Being Heart Smart" activity sheet and answer sheet <br> - "Fat Finders" activity sheet and answer sheet |
| Instructions | 1. Being "Heart Smart" includes being physically active and eating healthy foods. Research indicates that fatty deposits in arteries can start to develop in childhood. Two main goals of heart smart eating are to increase vegetable and fruit intake and to limit fat intake. <br> 2. Eating plenty of vegetables and fruit daily has a protective effect on our overall health. It helps reduce cancer risk and helps keep our hearts healthy. <br> 3. Limiting fat intake is important, but keep in mind that guidelines for adults are generally stricter regarding fat intake. Children need to include some fat, especially "good" types of fat. Good types of fat include the natural fats in nuts and seeds, fish, whole grains and vegetable oils. These types of foods should be included in moderate amounts on a regular basis. Explain that these types of fat are important in our diets because they: <br> - Transport some vitamins <br> - Provide energy for growth <br> - Protect our vital organs <br> - Are a part of hormones <br> - Insulate our bodies <br> 4. Maintaining a healthy body weight and limiting salt (e.g. salty snacks such as chips) and caffeine (e.g. cola) are also important in heart healthy eating. <br> 5. This activity introduces the idea of heart smart eating. Distribute the "Being Heart Smart" activity sheet. Ask students to complete the activity sheet by selecting words to fill in the blanks to complete the sentences about heart smart eating. <br> 6. Discuss the correct answer with the students. <br> 7. Next distribute the activity sheet "Fat Finders". This activity sheet encourages students to visualize and quantify amounts of fat in related food items and in two fast food meals. Allow students time to complete it. <br> 8. Discuss the correct answers with the students. |

## Being Heart Smart

Complete the sentences below by selecting the correct word from the following list:


| FIBRE | FAT | VEGETABLE |
| :--- | :--- | :--- |
| SALT | HEART | PHYSICAL |
| BLOOD | SATURATED | WEIGHT |
| HEALTHY |  |  |

1. Eating less saturated and trans $\qquad$ found in fried foods, hard margarine, cream, and fatty meats will help keep your heart healthy.
2. Maintaining a healthy $\qquad$ is good for your heart.
3. Healthy eating and regular $\qquad$ activity are important for your heart healthy lifestyle.
4. Eating vegetables, fruits and whole grain products add $\qquad$ to your diet, which helps keep you healthy.
5. $\qquad$ fat, such as the fat found in solid fats (shortening, etc.) or animal fats (fat on meats) are not the best choices for your heart health.
6. $\qquad$ oils have types of fat that are better for your heart.
7. Eating fish regularly may help reduce the risk of $\qquad$ disease.
8. When fat or cholesterol build up in the blood over a long period of time, the
$\qquad$ vessels can become narrowed and clogged.
9. Eating less fat and less $\qquad$ is healthy for your heart.
10. Being a nonsmoker plays a major role in keeping your heart $\qquad$ .

## Being Heart Smart

(Answer Sheet)

1. Eating less saturated and trans FAT found in fried foods, hard margarine, cream, and fatty meats will help keep your heart healthy.
2. Maintaining a healthy WEIGHT is good for your heart.
3. Healthy eating and regular PHSYICAL activity are important for your heart healthy lifestyle.
4. Eating vegetables, fruits and whole grain products add FIBRE to your diet, which helps keep you healthy.
5. SATURATED fat, such as the fat found in solid fats (shortening, etc.) or animal fats (fat on meats, etc.) are not the best choices for your heart health.
6. VEGETABLE oils have types of fat that are better for your heart.
7. Eating fish regularly may help reduce the risk of HEART disease.
8. When fat or cholesterol build up in the blood over a long period of time, the BLOOD vessels can become narrowed and clogged.
9. Eating less fat and less SALT is healthy for your heart.
10. Being a nonsmoker plays a major role in keeping your heart HEALTHY.

## Fat Finders Activity

## Match the foods below with the correct amount of fat in milliliters ( mL ).

| Dairy Products Select from: | $2.5 \mathrm{~mL} \quad 5 \mathrm{~mL}$ | $15 \mathrm{~mL} \quad 20 \mathrm{~mL}$ |  |
| :---: | :---: | :---: | :---: |
| $125 \mathrm{~mL}(1 / 2$ cup $)$ ice cream | 1 oz Part Skim Mozzarella Cheese | $125 \mathrm{~mL}(1 / 2$ cup $)$ <br> Yogurt | 1 oz Cheddar Cheese |
| $\ldots \mathrm{mL}$ | mL | mL | $\ldots \mathrm{mL}$ |

Fish

| Select from: only a trace 5 mL |  | 10 mL | 20 mL |
| :---: | :---: | :---: | :---: |
| Baked Fish | Breaded, Deep Fried | Fish Sticks | Fish, Baked with butter |
| mL | $\qquad$ mL | mL | $\ldots \mathrm{mL}$ |

## Potatoes

| Select from: only a trace $\quad 10 \mathrm{~mL}$ |
| :--- |
| Mashed, milk and <br> butter added 40 French Fries Baked Potato $125 \mathrm{~mL}(1 / 2$ cup $)$ <br> Hash Browns <br> mL  mL $-\quad \mathrm{mL}$ |

Fast Food Meals
Select from: $\quad 30 \mathrm{~mL} \quad 60 \mathrm{~mL}$

| Vanilla Shake | Single Patty Burger |
| :--- | :--- |
| Double Patty Hamburger | Salad with 1 Tbsp Dressing |
| French Fries | $2 \%$ Milk |
| mL |  |

## Fat Finders Answer Sheet

## Dairy Products

| $125 \mathrm{~mL}(1 / 2$ cup) ice <br> cream | 1 oz. Part Skim <br> Mozzarella Cheese | $125 \mathrm{~mL}(1 / 2$ cup $)$ <br> Yogurt | 1 oz. Cheddar <br> Cheese |
| :---: | :---: | :---: | :---: |
| $\mathbf{2 0} \mathbf{~ m L}$ | $\mathbf{5} \mathbf{~ m L}$ | $\mathbf{2 . 5} \mathbf{~ m L}$ | $\mathbf{1 5} \mathbf{~ m L}$ |

Fish

| Baked Fish | Breaded, Deep Fried | Fish Sticks | Fish, Baked with <br> butter |
| :---: | :---: | :---: | :---: |
| Only a trace | $\mathbf{2 0} \mathbf{~ m L}$ | $\mathbf{1 0} \mathbf{~ m L}$ | $\mathbf{5} \mathbf{m L}$ |

## Potatoes

| Mashed, milk and <br> butter added | 40 French Fries | Baked Potato | $125 \mathrm{~mL}(1 / 2$ cup $)$ <br> Hash Browns |
| :---: | :---: | :---: | :---: |
| $\mathbf{1 0} \mathbf{~ m L}$ | $\mathbf{2 5} \mathbf{~ m L}$ | Only a trace | $\mathbf{2 0} \mathbf{~ m L}$ |

## Fast Food Meals

| Vanilla Shake | Single Patty Burger |
| :--- | :--- |
| Double Patty Hamburger | Salad with 1 Tbsp Dressing |
| French Fries | $2 \%$ Milk |
| $\mathbf{6 0} \mathbf{~ m L}$ | $\mathbf{3 0} \mathbf{~ m L}$ |


| Food Journal |  |
| :---: | :---: |
| Objectives of Activity | To have students keep a record of vegetables and fruit they eat, so they can assess their eating habits, and then compare their results to Canada's Food Guide's minimum recommendation of 6 servings per day for $9-13$ years old. |
| Teacher Background Information | - Surveys show that children are (on average) eating less than the minimum servings of vegetables and fruit recommended by Canada's Food Guide. Vegetables and fruit provide many nutrients needed to stay healthy, including Vitamin C, Vitamin A, Folic Acid and other B Vitamins, and Fibre. |
| Material Required | - Journal entry sheets: "Vegetables and Fruit Eaten Yesterday" <br> - Copies of Eating Well with Canada's Food Guide (2007) |
| Instructions | 1. Ask students to remember what they had to eat or drink yesterday. Have them think about vegetables and fruit that were part of their meals and snack yesterday. Review Canada's Food Guide for serving sizes so students can estimate their consumption. <br> 2. Ask students to fill in the student activity sheet - "Vegetables and Fruit Eaten Yesterday". Have them compare the number of vegetables and fruit that they ate to the Canada's Food Guide recommendations (at least 6 servings a day for 9-13 year olds). Students can graph their amount eaten and the amount recommended in a bar graph. <br> 3. Give students a personal challenge to increase the number of servings of vegetables and fruit they eat every day. (e.g. if Sally ate 2 servings in one day, she can challenge herself to eat 3 or 4 servings a day.) Students are to think about their personal goal and to record that goal. Students are then instructed to record their vegetable and fruit intake for the next seven days to determine their average servings of vegetable and fruit per day. <br> 4. Inform students of the following healthy eating tips: Juice should be limited to $125 \mathrm{~mL}(1 / 2$ cup) per day ( 1 serving per day). Eat your vegetables and fruit rather than drink them so you get more nutrients to keep you healthy! <br> 5. Check in with the students after a week to see if they reached their goal intake of vegetables and fruit. |

## Vegetables and Fruit Eaten Yesterday Journal Entry Sheet

Canada's Food Guide recommends at least 6 servings of Vegetables and Fruit for 9-13 year olds.

## How many servings of vegetables and fruit did you eat yesterday?

## Remember, one serving is:

- 1 medium sized piece fruit, such as banana, orange, apple, peach, pear
- 125 mL ( $1 / 2$ cup) fresh, frozen or canned vegetables and fruit
- 250 mL ( 1 cup) raw leafy greens, such as spinach or lettuce
- 125 mL ( $1 / 2$ cup) $100 \%$ unsweetened juice (*should limit to one serving per day)
- $60 \mathrm{~mL}(1 / 4 \mathrm{cup})$ dried fruit, such as raisins

List the vegetables and fruit you ate with breakfast. Don't forget the $100 \%$ juices you drank.

| Type and amount: | Number of servings: |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

List the vegetables and fruit you ate with lunch. Don't forget the $100 \%$ juices you drank.

| Type and amount: | Number of servings: |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

List the vegetables and fruit you ate with dinner. Don't forget the $100 \%$ juices you drank.

| Type and amount: | Number of servings: |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

List the vegetables and fruit you ate as a snack. Don't forget the $100 \%$ juices you drank.

| Type and amount: | Number of servings: |
| :--- | :--- |
|  |  |
|  |  |
|  |  |

$\qquad$
Did you eat at least 6 servings?
YES
NO

## Classroom Cookbook

\(\left.$$
\begin{array}{|l|l|}\hline \begin{array}{l}\text { Objectives of } \\
\text { Activity }\end{array} & \text { To have students explore favorite recipes of the class. } \\
\hline \begin{array}{l}\text { Teacher Background } \\
\text { Information }\end{array} & \text { N/A } \\
\hline \text { Material Required } & \begin{array}{l}\text { - "My Favorite Recipe" Form } \\
\text { - "Classroom Cookbook" Cover Page } \\
\text { - }\end{array}
$$ <br>
\hline Instructions \& 1. Give each student a copy of "My Favorite Recipe" form. <br>
2. A few days prior to the lesson, have students take the form home and fill it in <br>
with their favorite recipe (encourage healthy recipes). Students may need <br>

help from a parent or guardian to find the recipe.\end{array}\right\}\)| 3. Have students explain why their recipe is a healthy choice (such as, it |
| :--- |
| includes fruit and whole wheat flour). Discuss ways the recipes could be |
| changed to make them healthier. For example: substitute some of the oil with |
| applesauce or white flour with whole wheat flour, add more vegetables, use |
| lean meats instead of higher fat meats, add legumes (beans, peas, lentils). |
| Discuss ways the recipes could be changed if someone had an allergy to one |
| of the foods. For example: if a person was allergic to nuts, the nuts could be |
| removed and substituted. |

My Favourite Recipe

Name of the Recipe:
Ingredients:

Directions:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Students Name:

$\qquad$

Why I like this recipe: $\qquad$
$\qquad$

## Classroom Cookbook

## Teacher:

## Authors:

| What is Vegetarianism? |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students become familiar vegetarianism. |
| Teacher Background <br> Information | Teacher requirement: <br> - Review Background Information for Teachers, Vegetarianism and <br> recommended resources. |
| Material Required | - Dictionary <br> - "Vegetarian Glossary" <br> - "Planning Vegetarian Meals" activity sheet |
| Instructions | 1. Ask students if they know what vegetarianism means. Have one student look <br> up the definition in a dictionary and read it to the class |
| 2.Review with students the different kinds of vegetarians (see Background <br> Information for Teachers). |  |
| 3.Discuss why people may choose to become a vegetarian. (Answers may <br> include: religious or philosophical beliefs, ethnical or economic reasons, <br> environmental concerns, possible health benefits, taste preference, fad or <br> popular diet.) |  |
| 4.Discuss some of the barriers or limitations to becoming a vegetarian. <br> (Answers may include: hard to eat out, vegetarians are at risk for nutrient <br> deficiency because meats have a lot of important nutrients they will miss and <br> have to make sure they get from other sources, takes more time to plan <br> meals, peer pressure to eat meat, it takes a big commitment to live a healthy <br> lifestyle as a vegetarian.) |  |
| 5.Give each student a copy of the "Vegetarian Glossary" handout and a <br> "Planning vegetarian meals" activity sheet. |  |
| 6. Have students complete the activity in groups or individually. |  |

## Vegetarian Glossary

Vegetarian styles of eating exclude animal products to varying degrees. A vegetarian diet consists mostly of fruits, vegetables, cereals, grains, nuts, seeds and pulses. There are several types of vegetarian diets.

Common Vegetarian Diets

| Vegetarian Diet | Foods Eaten | Foods Not Eaten |
| :--- | :--- | :--- |
| Lacto-ovo-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> milk products, eggs | meat, poultry, fish, seafood |
| Lacto-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> milk products | meat, poultry, fish, seafood, eggs |
| Ovo-vegetarian | grains, legumes, nuts, <br> seeds, vegetables, fruit, <br> eggs | meat, poultry, fish, seafood, milk <br> products |
| Vegan | grains, legumes, nuts, <br> seeds, vegetables, fruit | meat, poultry, fish, seafood, eggs, <br> milk products, honey, animal by- <br> products (such as gelatin, bouillon <br> cubes) |

However, more is involved than simply eliminating a piece of meat from one's plate. It means substituting other foods to replace the nutrients found in animal products. It is important that vegetarians ensure the adequate intake of certain nutrients, which may be limited unless care is taken to choose reliable sources. These nutrients include protein, Vitamins D and B12, calcium, iron and zinc.

## Planning Vegetarian Meals

Name: $\qquad$
Plan three different balanced meals for each of the following vegetarian diets. Remember a balanced meal includes foods from at least 3 out of the four food groups. Use the "Vegetarian Glossary" to help you remember what not to include in the meal!

| Breakfast |
| :--- | :--- |
| Lacto-ovo-vegetarian |
|  |
| Lunch |
| Lacto-vegetarian |
| Snack |
| Ovo-vegetarian |
| Supper |
| Vegan Diet |


| What is Diabetes? |  |
| :---: | :---: |
| Objectives of Activity | To have students understand what high blood sugar means; learn general information about diabetes; and verbalize the body parts that are affected when blood sugar is not controlled. |
| Teacher Background Information | - Canadian Diabetes Association www.diabetes.ca |
| Material Required | - Computer with internet connection, speakers and projector (or SMART Board) |
| Instructions | 1. Ask the class "What does having diabetes mean?" Gather responses and discuss. <br> 2. Show students the videos from the website: http://kidshealth.org/kid/closet/movies/diabetes movie.html?tracking=79997_A (click on the "Watch the Diabetes Movie") these videos will help to explain how diabetes works. <br> 3. Recap from the videos: a) Diabetes means that your body is not getting glucose (sugar) into your cells. Too much glucose is staying in your blood and not getting into your body's cells to be used for energy. b) Sometimes people are born with diabetes (Type I) because their body doesn't produce something called insulin. In most cases of diabetes, people develop the condition because the insulin they make isn't able to do its job properly. c) Insulin plays a big role in diabetes. It is a hormone produced by the pancreas to control the amount of glucose (sugar) in the blood. <br> 4. To stay healthy with diabetes, people have to control their blood sugar (glucose) levels. This means making sure they don't have too much or too little sugar in your blood. People with diabetes can keep a healthy balance of blood sugars by eating healthy and keeping active. Sometimes people with diabetes have to take medication or give themselves needles with insulin. <br> 5. "Does anyone know how you can tell if you blood sugar is in control?" People with diabetes have to test their blood to see how much sugar is in it. How often they test depends on how well they can keep their blood sugars in the healthy range. Sometimes a person with diabetes has to test up to three times a day; but more often, around once a day. <br> 6. "What do you think can happen if someone with diabetes cannot control his/her blood sugars?" Diabetes can affect the entire body! If blood sugars stay too high, the eyes can get damaged (and eventually cause blindness), the kidneys can stop working (and the person would need dialysis to clean |


|  | the blood), and nerves in the hands, feet and legs can cause a lot of pain or <br> stop working altogether (leading to amputation of limbs). |
| :--- | :--- |
| 7. The great news is that you can help to prevent diabetes by eating healthy |  |
| NOW and staying active NOW! |  |

## Background Information for Teachers: Physical Activity

Physical activity plays an important role in the health, well-being and quality of life of all Canadians, and it is particularly important for children and youth. Healthy habits formed early can last a lifetime. An active lifestyle with at least $\mathbf{6 0}$ minutes of physical activity a day brings health benefits now, and helps children grow up to become healthy, active adults. Healthy active living requires a 'whole day' lifestyle approach, with parents, caregivers and teachers all as primary role models.

## Canadian Physical Activity Guidelines

The Canadian Society for Exercise Physiology (CSEP) released new Canadian Physical Activity Guidelines in 2011. The Guidelines describe the amount and types of physical activity that offer substantial health benefits to children, youth, adults and older adults.

## How much physical activity do children need?

The Canadian Physical Activity Guidelines recommend that children aged 5-11 years should accumulate at least 60 minutes of moderate- to vigorous- intensity physical activity daily. This should include:

- Vigorous-intensity activities at least three days per week.
- Activities that strengthen muscle and bone at least three days per week.

More physical activity provides greater health benefits.

## What is moderate to vigorous aerobic activity?

On a scale of 0 to 10 (with 0 being completely at rest and 10 being absolute maximum effort), moderate-intensity aerobic activity is a 5 or 6 . Kids will breathe harder and their hearts will beat faster. They should be able to talk, but not sing.

Examples of moderate physical activity include:

- Walking quickly
- Skating
- Bike riding
- Skateboarding.

Vigorous-intensity activity is a 7 or 8 . Heart rates will increase even more and children will not be able to say more than a few words without catching a breath.
Examples of vigorous activity include:

- Running
- Playing tag
- Jumping rope
- Soccer
- Swimming


## What are strengthening activities?

Muscle-strengthening activities build up the muscles. Examples of muscle-strengthening for kids include climbing and swinging on playground equipment, playing tug of war, and doing sit ups or modified push ups.

With bone-strengthening activities, muscles push against bones helping make them stronger. Examples of bone-strengthening activities include running, walking, hopscotch, and jumping rope.

## Combining aerobic and strengthening activities

To achieve health benefits, children need to do both aerobic and strengthening activities. Aerobic activities result in faster breathing, a warmer feeling and an increased heart rate. Strengthening activities build muscles and bones.

## What are some health benefits of physical activity?

- Improved health
- Improved fitness
- Stronger bones and healthier muscles
- Better posture and balance
- Stronger heart
- Healthy growth and development
- Increased concentration
- Better academic scores
- Improved self-esteem
- Lower stress
- Opportunities for socializing
- Learn new skills
- Prevention of chronic diseases later in life. Examples include type 2 diabetes and heart disease.


## Canadian Sedentary Behaviour Guidelines

CSEP also developed new Canadian Sedentary Behavior Guidelines in 2011. These Guidelines provide recommendations for Canadian children on limiting sedentary behaviour in order to reduce health risks. Sedentary behaviours are characterized by little physical movement and low energy expenditure.

Some examples are:

- sitting for long periods of time
- using computers
- playing passive video games
- motorized transportation
- watching television

The Canadian Sedentary Behaviour Guidelines state that for health benefits, children aged 5-11 years should:

- Limit recreational screen time to no more than two hours per day.
- Limit sedentary (motorized) transport, extended sitting, and time spent indoors throughout the day.

Scientific evidence has shown a direct connection between increased sedentary time and decreased fitness, poor self-esteem, weak academic performance, obesity and increased aggression.

The Canadian Sedentary Behaviour Guidelines for children aged 5-11 are complementary to the Canadian Physical Activity Guidelines for the same age range. The two Guidelines together can be thought of as a recipe for families, teachers and caregivers to give children the best possible chance to gain health and social benefits.

## References:

- The Public Health Agency of Canada:
www.phac-aspc.gc.ca http://www.phac-aspc.gc.ca/hp-ps/hl-mvs/pa-ap/index- eng.php
- Canadian Physical Activity Guidelines and Canadian Sedentary Behavior Guidelines (CSEP) www.csep.ca
http://www.csep.ca/english/view.asp?x=804


## Background Information for Teachers: Immune System

## How does nutrition affect the immune system?

Germs, such as bacteria and viruses, are found everywhere. Although germs are all around, they do not always make you sick, as many germs are not harmful. The immune system in your body usually keeps out harmful germs.

The immune system is your body's natural protection mechanism against germs. Good nutrition helps to maintain and improve the performance of the immune system. What we eat affects how our immune system works. You can give your body and your immune system the nutrients they need to help fight off infection by making healthy food choices. A strong immune system helps keep your body healthy.

Nutrients are the elements in food that our body needs to live: proteins, fats, carbohydrates, vitamins and minerals. The immune system uses specific nutrients, working together, to fight infection.

## Protein builds muscle and organs

Proteins build and repair body tissue. It also builds antibodies (the blood components which fight infection) that maintain proper working order of the immune system.

## Carbohydrates and fats provide energy

Carbohydrates and fats provide the body with energy and are found in most of the foods that make up a balanced diet. They give our body the energy to build and run the immune system. If we don't eat enough carbohydrates and fats, the body turns to protein to get energy, robbing our muscles and immune system of the protein these systems need to stay strong.

## Vitamins and minerals help release energy

Vitamins are needed to release the energy in food but are not a source of energy themselves. Vitamins are also needed by all of the cells in the immune system. Minerals help vitamins do their job and add to the smooth functioning of the immune system.

## How it all works together

Proteins, carbohydrates, fats, vitamins and minerals depend on each other just like the different members of a team. If our immune system does not have enough of one nutrient it will not function efficiently, even if it has more than enough of all the others. All the different nutrients depend on each other to work properly. For good health and a strong immune system it is important to eat a well balanced diet. Following Canada's Food Guide is the best way to make sure we are getting the right balance of protein, carbohydrates, fats, vitamins and minerals.

## How does physical activity affect your immune system?

Regular exercise is important to the healthy functioning of your body. It strengthens your muscles which helps strengthen your immunity. Regular exercise is as important to your longterm health as regular healthy eating. Please refer to the Physical Activity Guide for guidelines.

Here are some tips for optimum health:

1. Wash your hands with soap and warm water to get rid of germs
2. Eat healthy foods
3. Do at least 90 minutes of physical activity every day
4. Get adequate rest and relaxation
5. Brush your teeth after meals
6. Visit your doctor and dentist regularly for checkups
7. Be sure to get the immunizations you need

## Student Activities: Physical Activity

| How Active Are You? |  |
| :--- | :--- |
| Objectives <br> of Activity | To have students evaluate how active they are. |
| Teacher <br> Background <br> Information | • Canadian Physical Activity Guidelines for Children 5-11 Years 2011 Scientific Statement <br> http://www.csep.ca/CMFiles/Guidelines/CanadianPhysicalActivityGuidelinesStatements E E\%201.pdf <br> Canadian Physical Activity Guidelines for Children 5-11 Years |
| Material <br> Required | • "How Active Are You?" activity sheet and discussion questions <br> - Pencil crayons |
| Instructions | 1. Discuss the importance of physical activity using teacher background information. <br> 2. Define the following words: (These words are defined in Canada's Physical Activity <br> Guidelines Glossary of Terms): |

Vigorous Intensity Activities $=$ high level of activity where the heart rate is elevated and sweating occurs (e.g. basketball, running, hockey), on an absolute scale, vigorous-intensity refers to physical activity that is performed at typically 7.0 or more times for children and youth.
Moderate Intensity Activities = medium level of activity where the heart rate is slightly higher than normal and the body is warm but not necessarily sweating (e.g. brisk walking, light skating or bike riding), on an absolute scale, moderate-intensity refers to physical activity that is performed at 4.0-6.9 times the intensity of rest for children and youth.

Aerobic/Endurance $=$ activities that make you breathe deeper, your heart beat faster, and make you feel warm (vigorous or moderate activity)
Sedentary Activity = activity that requires little to no movement (e.g. watching tv, playing video games, reading a book)

Muscle/Bone Strengthening = activities that build your muscles and bones (i.e. hopscotch, jumping rope, basketball, weight training)
3. Have students complete the "How Active Are You" activity sheet by colouring each piece of the pie depending on the activities they've done in the past 24 hours. And then have them complete the discussion questions.
4. Have students compare and discuss their results as a class. Discuss the importance of variety and balance in activities. Highlight that daily physical activity helps to keep your body and immune system healthy.

## How Active Are You?

Name: $\qquad$

Use the following chart to analyze your physical activities over the past 24 hours:
Colour the sections of the activity pie based on the type of activity you were doing.

| Green: | Vigorous Intensity Activities (e.g. running, weight training, hockey, basketball) |
| :--- | :--- |
| Blue: | Moderate Intensity Activities (e.g. brisk walking, light skating or bike riding) |
| Red: | Sedentary Activity (e.g. watching TV, playing video games, sitting at a computer) |
| Yellow: | Sleeping |
| Orange: | At school, in class |



## Discussion Questions: How Active Are You?

Name: $\qquad$

1. Did you include endurance flexibility and strength exercises in your vigorous and moderate activities? If you did, when did you do them and for how long?
2. Do you feel that you have enough variety and balance in your daily activities? Why or Why not?
3. How would your wheel change if you were to record your activity on a weekend compared to a weekday?
4. Why is daily physical activity important? What are the benefits?

| Immunity Challenge |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students recognize the relationship between being physically active, <br> eating healthy and having a healthy immune system. |
| Teacher Background <br> Information | See Background Information for Teachers: Immune System |
| Material Required | • "Immunity Challenge" activity sheet |
| Instructions | 1.Discuss with the class the relationship between physical activity and healthy <br> eating and your immune system, using information from the teacher <br> background <br> 2. Have the students complete the activity sheet. Remind students to be as <br> truthful as possible when completing it (there is no right or wrong answer). <br> 3.When done the activity sheet, have students discuss their responses with <br> their classmates. <br> 4. Once the activity sheet has been discussed, students will be able to put more <br> thought into the 3 goals to help their immune system (at the bottom of the <br> page). <br> Extension: <br> • Follow up with this activity later (one week, one month, etc) and have <br> students fill out the activity sheet again. <br> • Have them compare their answers and comment on what has and |

## Immunity Challenge

Name: $\qquad$
Your immune system is your body's natural defense system. Being healthy and living a healthy lifestyle helps your defense system be ready to do its job of resisting and fighting infections and disease. Take the Immunity Challenge to see how you rate in helping your defense system be in its best condition.

Rate your health habits and behaviours by checking the one appropriate box for each of the following:

| Health Behaviour | Always | Sometimes | Never |
| :--- | :--- | :--- | :--- |
| I try to follow Canada's Food Guide. |  |  |  |
| I eat at least 6 servings of Vegetables and Fruit each day. |  |  |  |
| I try to get 90 minutes of physical activity each day. |  |  |  |
| I get at least 8-10 hours of sleep. |  |  |  |
| I eat breakfast. |  |  |  |
| I eat lunch. |  |  |  |
| I am safety conscious and try to avoid injury. |  |  |  |
| I wash my hands before eating and after going to the bathroom. |  |  |  |
| I never put things in my mouth (unless it's food). |  |  |  |
| I am happy. |  |  |  |
| I have special interests or hobbies that give me pleasure. |  |  |  |
| I drink at least 8 cups of water in a day. |  |  |  |
| My immunizations are up to date. |  |  |  |

Where could you make some improvements? Look at areas where you have checked "sometimes" or "never". Make 3 goals to help your immune system function at its best:

1. $\qquad$
2. $\qquad$
3. $\qquad$

## My Personal Contract

| Objectives of <br> Activity | To have students think about personal ways to achieve healthy living. |
| :--- | :--- |
| Teacher Background <br> Information | N/A |
| Material Required | • "My Personal Contract" activity sheet |
| Instructions | 1. Distribute the activity sheets. |

2. Review the concept of healthy living (See previous activity "Healthy Eating is Part of Healthy Living"). Healthy living includes doing our best to help our bodies stay healthy and free of sickness. It also includes how we feel about ourselves.
3. Have students think of ways they personally can work on healthy living. Do they need to improve their eating habits? If so, how? Do they need to be more physically active? Do they need to work on co-operation with others? Do they take the time to do the things that they really enjoy (e.g. art, music, time with pets, etc.)? Do they intend to have healthy behaviours such as not smoking, etc.?
4. Instruct each student to write down three promises they will make to themselves that relate to healthy living.
5. Optional: Have students voluntarily share examples of their intentions with the rest of the class. As these may be private goals, do not force any students to share their examples. Make a list of the examples that are volunteered on the board.

| My goals for healthy living: |  |
| :--- | :--- |
| 1. | I will |
| 2. | I will |
|  |  |
| 3. I will |  |

## Background Information for Teachers: Body Image

## What is body image?

The mental picture you have of your physical appearance and the attitudes you have towards it. These mental pictures may not be similar to your actual body shape. Between the ages of 9-12, many children become unhappy with how they look and assume that peers perceive them in the same way.

## What is self-esteem?

Self-confidence and self-acceptance are two factors that influence a person's self-esteem. Selfesteem is the individual's image of self-worth; how they feel about themselves and value themselves based on who they feel they are and who they feel they should be.

## How do they work together?

Self-esteem and body image usually greatly influence each other. People who have a positive self-esteem are more likely to accept and to have a realistic image of their physical appearance. Others who have a negative self-esteem feel poorly about their inner and outer image, which can lead to distortion of their body image.

## Impacts on body image

Interests: Interests differ from child to child and will affect the things they do to promote a healthy lifestyle.

Activities (especially physical activity): When children are active, they are more likely to feel good about themselves and to recognize when they are hungry and when they are full. This allows them to eat enough to meet their nutritional needs and have the energy they need to be active. Children who are hungry or who do not eat well are less likely to have enough energy to be active and to get involved in activities that will help them feel good about themselves. Accomplishment of more sedentary activities such as sewing, drawing or puzzle making can also help a child's self-confidence, which in turn creates a positive body image.

Abilities: A child's newly developed abilities can also help create a positive body image by increasing their self-esteem. These abilities prove to the child that they are capable of learning new skills that were once impossible. Once students learn to appreciate their own talents and abilities, such as athletic capabilities, musical dexterity and artistic flair, they will increase their chances of creating a more positive body image.

## How health habits/behaviours influence body image:

Skipping breakfast regularly- This reduces concentration and may affect school performance. People who miss breakfast tend not to meet their daily requirements for essential nutrients, in particular- calcium, iron, thiamin (vitamin B1), and fibre. Breakfast is important in maintaining healthy blood sugar levels. People who regularly skip breakfast experience decreased blood sugar levels, which naturally lead to cravings for foods high in sugar. Eating foods high in sugar on an empty stomach can lead to physical discomfort such as shakiness, dizziness and nausea. Eating frequently throughout the day, beginning with breakfast, regulates metabolism more efficiently and provides a more constant supply of energy.

Dieting- When dieting the body is unable to differentiate between a deliberately constructed lowcalorie diet and an actual famine. The reduction in caloric intake causes the body to seek to protect from starvation by gradually burning fewer and fewer calories, making weight-loss ineffective. Once dieting is terminated, the body will work not only to regain any lost weight, but will also store extra in the event that starvation occurs again. Diets therefore do not work as is commonly thought and can actually contribute to overweight.

Not eating regularly- To wait until the body is overly hungry could result in overeating or binge eating because the body is desperate for food. If these behaviours become a habit, it could lead to serious eating problems. Waiting until this point frequently results in lack of energy, mood swings, lack of concentration and fainting. This could interfere with daily functions including school performance and relationships with others. Not eating regularly can also slow down the metabolism, which can lead to fluctuations in weight.

Physical activity- Active living is a way of taking good care of our bodies. The benefits of regular physical activity are many, including improved strength and coordination, improved cardiovascular fitness, reduced tension, increased energy and a sense of well-being.

Physical activity should be seen as an enjoyable part of life. Active living can be achieved by moving a little more often. It can be a simple walk to school, a bicycle ride, raking the leaves, shoveling snow or carrying the groceries

Enjoying a variety of healthy food- Eating from the four food groups provides you with the nutrients you need to be healthy. You need foods from each group because each gives you different nutrients. You also need to choose different foods from within each food group to get all the nutrients your body needs. As well, ensuring a variety of choices helps avoid the boredom that can come from eating the same foods day in and day out. Variety also means trying food from other cultures, which can help children learn about their friends and the world around them.

Sleep- Just as healthy food choices and physical activity are important factors in overall health and well being, adequate sleep is necessary for people to function properly throughout the day. Some can function with less, while others require as many as twelve hours. Students should take into consideration their daily activities and be sure that they are well rested, so they can optimize their health. As always, it is important to listen to internal body cues and rest as needed.
Student Activities: Body Image

| What Makes You Unique? |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students to identify personal characteristics that makes them unique. |
| Material Required | - A chalk board or a white board |
| Instructions | 1. Write the word diversity on the board. <br> 2. Ask the students to define the word diversity. Definitions should include <br> that diversity is what makes someone or something unique. |

3. Ask students to think of examples of how they are each unique. Areas to consider may include:

- Skills and abilities (athletic, musical, literary, etc.)
- Family and/or cultural backgrounds
- Likes and dislikes
- Physical appearances such as hair and eye colour
- Personality
- Emotions and feelings

4. Discuss how differences in the above make people both interesting and unique.
5. Consider ways that people are different from one another.
6. Use this opportunity to explain that each one of us is unique and special.
7. Encourage students to respect and value both the ways they are different and the ways they are the same.

| I Just Gotta Be Me |  |
| :--- | :--- |
| Objectives of <br> Activity | To have students use their literary creativity to write a poem or song about <br> themselves. |
| Material Required | • "I Just Gotta Be Me" activity sheet |
| Instructions | 1. The song or poem should include why and/or when they feel good about <br> being who they are. |
|  | 2. Distribute the activity sheet and have students complete it. |

## I JUST GOTTA BE ME

Write a poem or song about yourself. Include why or when you feel good about being the person you are. Try to highlight some of your unique personal qualities.
(Title)

| Follow That Star! |  |
| :---: | :---: |
| Objectives of Activity | To have students describe and acknowledge their qualities and traits. |
| Teacher Background Information | See Background Information for Teachers: Body Image |
| Material Required | - "Follow That Star" activity sheet |
| Instructions | 1. Discuss the concept of interests, abilities and activities (as described in the teacher background for this section). <br> 2. Brainstorm with the class a long list of words that could be used to describe qualities or traits that people might possess: <br> For example: <br> 3. Have students complete the "Follow That Star" handout <br> 4. Once the activity sheet is completed, have the students share their responses with a partner. <br> 5. Ask students to think of other qualities to add to their partner's list. <br> 6. Discuss as a class common qualities or traits that appeared in more than a few of the responses. Discuss why these are admirable qualities. <br> 7. Ask the class what they notice about the qualities they have chosen for a friend. Are they only physical qualities or are they other types of qualities? |

## Follow That Star!

Name: $\qquad$

Write 6 words that describe you:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\star \star$ Put a star next to the words that are most important to you! $\star \star$

If you could develop a special talent, skill or other personal quality for yourself, what would it be? Why?
$\qquad$
$\qquad$
$\qquad$

List three (3) of your good qualities (not physical) - these are things that you wouldn't change, even if you could.

1. $\qquad$
2. $\qquad$
3. $\qquad$

Now describe what qualities you look for in a friend.
$\qquad$
$\qquad$
$\qquad$

| Changes in Interests, Abilities and Activities |  |
| :---: | :---: |
| Objectives of Activity | To have students examine the impact of interests, abilities and activities on body image and self worth. |
| Teacher Background Information | See Background Information for Teachers: Body Image |
| Material Required | - "Changes in Interests, Abilities and Activities" activity sheet |
| Instructions | 1. Define the following words with the class: <br> a. Interests = anything that a person is attracted to or is involved with (bugs, computers, sports, cars, horses, etc.) <br> b. $\quad$ Abilities $=$ what a person is able to do; can be natural or a learned talent (playing a music instrument, playing sports, writing, art/drawing, photography, etc.) <br> c. Activities $=$ something that people participate in (sports, drama, work, etc.) <br> 2. Have students work alone and complete the "Changes in interests, abilities and activities" activity sheet. <br> 3. Once complete, have students share their answers with a partner or small group. <br> 4. Discuss with the class some common answers on how these changes have altered their perception of their body image. |

## Changes in Interests, Abilities and Activities

Name: $\qquad$
A. List two things that you are interested in (ex. Animals, sports, cooking, computers, etc)

1. $\qquad$
2. $\qquad$
Are these new interests, or have you been interested in them for a long time?
B. List two NEW activities that you have tried in the past year.
3. $\qquad$
4. $\qquad$
Why did you try these new activities?
C. List two abilities (or skills) that you have developed over the past year (sport skills, mechanical skills, etc)
5. $\qquad$
6. $\qquad$
How did you learn these skills?

## Background Information for Teachers: Caffeine

Caffeine is a naturally occurring substance. It is a mild stimulant, which can speed up your heart rate and make you feel more awake. Caffeine may also cause you to go to the bathroom more often. These effects of caffeine are generally short term. For most people moderate amounts of caffeine cause no physical harm. But for some, excessive caffeine may cause insomnia, anxiety, headache or upset stomach.

Common sources of caffeine include coffee, tea, some soft drinks, chocolate and some headache and cold medicines.

People differ greatly in their sensitivity to caffeine. Some individuals may feel the effects of caffeine at smaller doses, while other individuals will feel the effects at larger doses.
Health Canada recommends the following maximum caffeine intake levels for children and youth:

| Children | $4-6$ years | $45 \mathrm{mg} /$ day |
| :--- | :--- | :--- |
| $7-9$ years | $62.5 \mathrm{mg} /$ day |  |
|  | $10-12$ years | $85 \mathrm{mg} /$ day |

The most common source of caffeine for children is soft drinks, therefore it is important to consider the effect of these beverages on the overall diet. Studies have shown that as the consumption of carbonated beverages consumed by a child increases, the consumption of milk and fruit juice decreases. Caffeine use would also be of concern if adverse effects such as sleeplessness were interfering with good health practices.

## Energy Drinks

Energy drinks are growing in popularity for youth and young adults today. Most energy drinks contain more than 80 milligrams per 250 mL ( 1 cup), which is approximately the maximum amount of caffeine recommended for youth per day. Also, most energy drinks contain a large amount of sugar which, if consumed during exercise, can lead to nausea, cramping and diarrhea in some people.

Energy drinks are meant to supply mental and physical stimulation for a short period of time. Energy drinks and sport drinks (such as Gatorade or Powerade) should not be confused, as sport drinks re-hydrate the body after prolonged activity (vigorous activity lasting longer than one hour) and energy drinks contain large amounts of caffeine and sugars, which can ultimately dehydrate the body.

Because of the effects energy drinks have, some may have to be regulated as a natural health product depending on the ingredients and claims they make. Energy drinks are not recommended for children and youth under 16 years old.

For more information, please visit the Health Canada website at www.hc-sc.gc.ca and search "Safe Use of Energy Drinks". Also, visit the Dietitians of Canada website at http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Energy-drinks.aspx?categoryID=18

The following is a list of some common beverages and foods and their caffeine content:

| Food or Beverage | Serving <br> Size | Amount of Caffeine (mg) |
| :--- | :---: | :---: |
| Colas (regular or diet) | 8 oz <br> $(240 \mathrm{~mL})$ | $23-31$ |
| Colas (caffeine free) and other soft drinks | 8 oz <br> $(240 \mathrm{~mL})$ | 0 |
| Espresso (from arabica beans) | 30 mL | 40 |
| Espresso (robusta beans) | 30 mL | 100 |
| Coffee, variety of brews | 8 oz <br> $(240 \mathrm{~mL})$ | $65-120$ <br> $(85 \mathrm{mg}$ typical) |
| Coffee, decaffeinated | 8 oz <br> $(240 \mathrm{~mL})$ | 4 |
| Frozen mochas ('fast food' versions - Ice Caps, | 300 mL | $35-70$ |
| Frappachinos, etc.) | 8 oz <br> $(240 \mathrm{~mL})$ | $8-90$ <br> $(40 \mathrm{mg}$ typical) |
| Tea, brewed | 8 oz <br> $(240 \mathrm{~mL})$ | $1-4$ |
| Tea, decaffeinated | 8 oz <br> $(240 \mathrm{~mL})$ | $70-130 \mathrm{mg}$ <br> $($ depending on brand) |
| Energy Drinks (Sobe, Red Rain, Red Bull, etc.) | 250 mL | 5 |
| Chocolate Milk | 1 <br> envelope | 30 g |
| Hot Chocolate from powdered mix | 30 g | 7 |
| Milk Chocolate | 145 g | $19-58$ |
| Dark Chocolate | 42 g | 9 |
| Chocolate pudding | 250 mL | 10 |
| Brownie | 3 beans | $0-85$ |
| Coffee Ice Cream | 36 |  |
| Chocolate covered coffee beans |  |  |

## Student Activities: Caffeine and Health

| Caffeine Connection |  |
| :---: | :---: |
| Objectives of Activity | To have students learn about caffeine and its effect on the body. |
| Teacher Background Information | • Dietitians of Canada - Caffeine http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Caffeine.aspx?categoryID=8 <br> - Health Canada - It's Your Health -Caffeine http://www.hc-sc.gc.ca/iyh-vsv/food-aliment/caffeine_e.html |
| Material Required | - "Caffeine Connection" activity sheet |
| Instructions | 1. Distribute the activity sheet. Ask students to read through it. <br> 2. Ask the class the following questions: <br> - Name dietary sources of caffeine. (coffee, colas, other soft drinks, some energy drinks, tea and chocolate) <br> - What effect does caffeine have on the body? (stimulates the nervous system) <br> - What are some effects of too much caffeine? (anxiety, restlessness, difficulty sleeping, headache) <br> 3. As a homework assignment, ask students to find out the caffeine content of at least three caffeine-containing drinks. <br> 4. Make a comparative chart of all drinks researched. <br> - Which has the most caffeine? <br> - Which has the least? <br> - What are the most common types of drinks that contain caffeine? <br> 5. Have a discussion about sugar-sweetened beverages including soft drinks, energy drinks, ice tea, lemonade, sports drinks, and fruit drinks. <br> - These all contribute little or no nutrients for our bodies. <br> - These types of drinks should be considered a treat and not as a primary source of fluids. <br> - Research shows that the regular use of sweetened beverages is a main contributor to overweight and obesity in children. <br> - To help with prevention of overweight in children, sweetened beverages should be limited; even pure unsweetened fruit juice should be limited to 125 ml ( $1 / 2$ cup) per day. <br> - Water is the best choice to quench our thirst! <br> Answers: <br> Coffee (Regular) 120 mg ; coffee (decaf) 4 mg ; cola 31 mg ; chocolate milk 5 mg ; tea (black) 43 mg ; caffeine free herbal tea 0 mg ; energy drink 80 mg |

## Caffeine Connection

## SOURCES OF CAFFEINE:

The most common place to find caffeine is in colas, coffee and tea. Cocoa and chocolate also contain caffeine. Example of foods that contain cocoa and chocolate are: chocolate cake, chocolate bars and chocolate milk. Also, more than 1000 nonprescription drugs contain caffeine.

Do you know how much caffeine is in these drinks? Make the Caffeine Connection and connect the drink with its caffeine content.

Drink


Tips for monitoring your caffeine intake

1. Read product labels for caffeine content.
2. Find out how much caffeine is in the products you use regularly. If information is not on the product label, you may need to use library resources or write to the manufacturer.
3. Try switching to products that don't contain caffeine or contain less caffeine.

## Count Your Caffeine Consumption

| Objectives of <br> Activity | To have students evaluate how much caffeine they are having in a day. |
| :--- | :--- |
| Teacher Background <br> Information | See Background Information for Teachers: Caffeine |
| Material Required | - "Sources of Caffeine" handout (from Background Information for Teachers: <br> - "Caffeine) |
| Instructions | 1. Discuss the information from the teacher background with the students <br> emphasizing: |

a. What is caffeine?
b. What are the side effects of caffeine?
c. What is the recommended daily intake for each student?
d. What are energy drinks?
e. Where is caffeine found?
2. Once students have an understanding of where caffeine is found, have students fill out their caffeine consumption log.
3. Using the "Sources of Caffeine" handout, have students then add up the amount of caffeine (in milligrams) that they consumed in one day. Students can also use the Canadian Nutrient File site to evaluate the amount of caffeine in the foods and beverages they consume:
http://webprod.hc-sc.gc.ca/cnf-fce/index-eng.jsp
4. Compare the amount of caffeine consumed with the maximum amount recommended by Health Canada.
5. Discuss ways to reduce caffeine consumption (e.g. drinking more water or milk).
6. Encourage students to re-evaluate their food and beverage choices to include these changes.

## Count Your Caffeine Consumption Activity Sheet

Name: $\qquad$
Record, in the chart below, the foods and beverages you consumed yesterday that contained caffeine. Look at the Sources of Caffeine chart for help in finding out what foods and beverages contain caffeine and the amount in milligrams (mg).

| Food or Beverage Consumed: | Serving Size: | Amount of <br> Caffeine <br> (in mg): |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |


| Total amount of caffeine consumed: | $\mathbf{m g}$ |
| ---: | ---: |
| Maximum amount of caffeine recommended in a day: | $\mathbf{8 5} \mathbf{~ m g}$ |

** If your total amount of caffeine consumed is higher than the maximum recommended amount, you need to find ways to decrease your caffeine consumption. **

List 3 ways to decrease the amount of caffeine you consume:
1.
2.
3. $\qquad$


[^0]:    * Alberta Education. (2002). K-9 Health and Life Skills Outcomes.

