

Update



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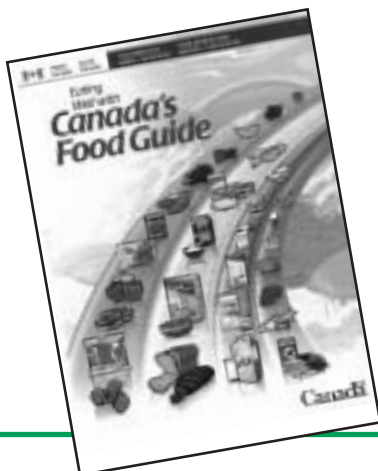
Nutrition and Canada's Food Guide

Teachers

Welcome to the start of another exciting school year. As you organize and plan your student learning opportunities, we anticipate you will continue to look to OAFE for resources to support and complement your teaching. This **Update** in particular has been developed to include activities focusing on nutrition, healthy eating and Canada's Food Guide.

Canada's Food Guide defines and promotes healthy eating for all Canadians. Canada's first Food Guide, *Canada's Official Food Rules*, was introduced to the public in July 1942. This guide acknowledged wartime food rationing, while endeavoring to prevent nutritional deficiencies and to improve the health of Canadians. "Eating Well with Canada's Food Guide" was released by the Minister of Health Canada in 2007. It describes what **amount** of food people need and what **type** of food is part of a healthy eating pattern. Recognizing that the recommended number of servings is different for people at different stages of life and is different for males and females, this latest guide has divided it's recommendations into several age and gender groups. There is also information provided about reading labels, the benefits of eating well and being active, the best oils and fats in our diets, what constitutes one food guide serving and how to make each serving count.

We wish you much success and look forward to planning our next **Update** to support your teaching.



1

Following the eating pattern in Canada's Food Guide will help people:

- Get enough vitamins, minerals and other supplements.
- Reduce the risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Achieve overall health and vitality.

Visit the *OAFE website* for additional sources of information and curriculum materials related to the agriculture and food industry.

www.oafe.org



Comparing Food Intake

Junior

1. Record the amount of each of the foods you eat during one week, in a chart similar to this:

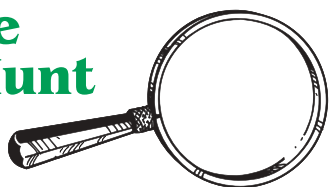
| Food | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|------|--------|---------|-----------|----------|--------|----------|--------|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

2. Complete the following calculations to see how your food consumption compares to the national average for each type of food. (Refer to Teacher info on page 12 of this Update).

- My total food intake (_____) X 52 weeks = _____
- Average Canadian food intake _____
- Compared to the average Canadian I eat _____.
(more, less, about the same)

Food Guide Treasure Hunt

Primary



- Place food pictures around the classroom before the students arrive.
- Review with students *Eating Well with Canada's Food Guide*.
- Discuss how and why foods are grouped together.
- Divide the class into groups of 3 to 4 students to go on a treasure hunt. Their goal is to find enough of the hidden pictures to make a healthy meal. A healthy meal is made up from food in the food guide and should include food from each group.
- Groups may trade pictures with each other to complete their healthy meals.
- When teams are all finished, have them identify the foods in their meals, and where each food fits into the Food Guide.
- Reinforce that a healthy and balanced meal consists of all four food groups from Canada's Food Guide

(David Thompson Health Region-Alberta from the Grade 2 Nutrition-Lesson Plans)

Classifying Foods

Divide the students into small groups and give each group a set of pictures from a food group. Have them brainstorm in their groups all the characteristics that the foods have in common. Record the answers on flip chart paper. When the students are done, have them survey all the sheets and cross out those characteristics that are duplicated on other sheets. They will then be left with a distinct set of characteristics for each food group.

(Dairy Farmers of Ontario - Nutrition P.I. document)

2

Canada's Food Guide recommends the number of Food Guide Servings people should eat from each of the four food groups, plus a small amount of added oils and fats. The recommended number of servings is different for people at different stages of life and is different for males and females. The recommended number of servings is an average amount that people should try to eat each day.

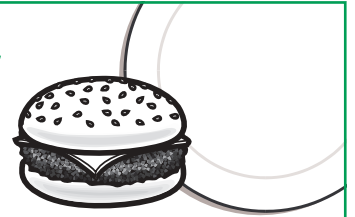
Food Group Memory Game



Open

Display 5-6 pictures of food on the board. Make sure to have at least one picture from each of the four food groups. Include some foods that are higher in calories, fat, sugar or salt. Have students identify each food and which food group each belongs to. Choose a student to come to the board. Instruct them to remove the not-so-healthy food(s) and turn away from the pictures to name the foods remaining. List what food group each food is from. (www.uen.org)

Picture Your Lunch



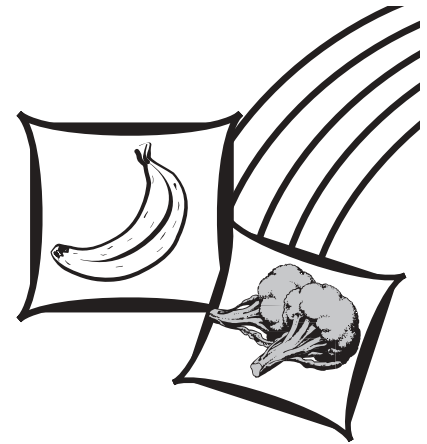
Primary

Discuss the difference between good foods, snack foods and occasional treats. Have students talk about balanced lunches and dinners and then draw their own pictures or cut out pictures from magazines and paste them onto paper plates illustrating the above. Display them around the classroom.

(Ontario Apples: Nature's Fast Foods, OAFE)

Canada's Food Guide Bean Bag Toss

Draw the Canada's Food Guide Rainbow on a large sheet of paper. Colour in and label the parts of the rainbow. For the game, have the students toss a bean bag onto the rainbow and then name the food group and one food that belongs in that category. If the beanbag lands outside of the rainbow, then they can re-throw. Depending on the age of the student, if the beanbag lands on a line between two categories then they can name a dish that contains food from both the groups, e.g. hamburger or pizza.



Mystery Sack

Use a bag with a drawstring top. Place a single vegetable or fruit or other food item in the bag. Have a student volunteer stick their hand into the bag (a blindfold will prevent the student from accidentally seeing the food). Ask the student to describe the food by smell and touch. The rest of the class tries to guess what food it is.

After the food is identified, and using Canada's Food Guide, have the class decide where that food belongs. Discuss the characteristics of food in that category.

Rhyming the Food Guide



Have students write a song, poem, rhyme or rap about a meal using all the food groups and then teach it to their peers with actions. Distinguish between beat and rhythm.

(Ontario Apples: Nature's Fast Food, OAFE)



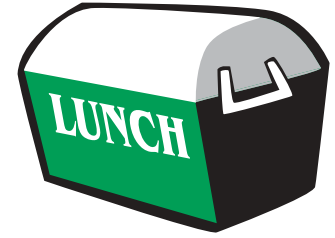
3

Make vegetables and fruit servings count:

- 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.
- Benefit from eating vegetables and fruit at all meals and snacks.
- Have vegetables and fruit more often than juice.

Who Has the Best Lunch?

The following students went out for lunch. They ate the following meals.
Compare the nutritional value of each.



Junior/Intermediate

| Nutritional Component | John (Cheese Pizza) | Jasmine (Bean Salad) | Dominic (Greek Bean Pita) | Julie (Hamburger and Fries) |
|-----------------------|------------------------|-------------------------|------------------------------|--------------------------------|
| Calories (Kcal) | 480 | 240 | 287 | 502 |
| Protein (g) | 22 | 10 | 16 | 14.5 |
| Fat (g) | 16 | 7 | 4 | 20.3 |
| Carbohydrate (g) | 60 | 34 | 49 | 65.3 |
| Fibre (g) | 3.2 | 18 | 8.85 | 3.4 |

1. Which student had the best meal?
2. Which nutrients did Julie miss that were prevalent in John, Jasmine and Dominic's lunch?
3. What medical complications is Julie susceptible to if she continues to maintain this type of diet? Why?
4. Which student is most likely to be alert for their afternoon classes? Why?
5. Suggest what other food(s) could be added to each student's lunch to make it a complete meal.

(Bean Bonanza, OAFE)

Pizza Activity

Primary



1. Have a discussion about pizza with the class. What type of pizza is their favourite? Thick crust vs. thin crust. Brainstorm to generate a list of their favourite toppings. Graph the results.
2. Put a copy of Canada's Food Guide Rainbow on display in the classroom for students to see. Using the copy on display, have the students draw a rainbow with the four colour strips on a piece of paper. Ask them to name the four food groups and then to write those categories on their papers in the appropriate section.
3. Brainstorm with the students to talk about which food group the different foods that make up a pizza belong to. Have the students cut out or draw pictures of their pizza toppings and also the crust, sauce and cheese and attach them to their diagrams in the appropriate places. For younger students, the teacher can provide them with a template of the rainbow for them to label and colour and also a template of the various toppings for them to colour.
4. Have students make their own pizzas with half an English muffin, pizza sauce, mozzarella slices or cheese sticks, olives, chopped green peppers and sliced weiners or pepperoni.

(Pizza Perfect, OAFE)

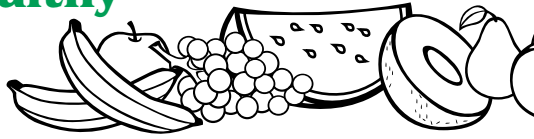


4

- Make at least half of your grain products whole grain each day.
- Choose grain products that are lower in fat, sugar or salt.
- Grain products, especially whole grains, are a source of fibre and typically are low in fat. Fibre rich foods can help people feel full and satisfied.
- Keep cookies, cakes, pastries and pies for special occasions. Such foods are not pictured as part of the healthy eating pattern.

Colour Me Healthy - Phyto Five

Primary



1. Ask students what they know about fruits and vegetables.
2. Have them review what a serving is from the vegetables and fruit group as represented in Canada's Food Guide.
3. Have students bring in examples of different vegetables and fruits from a variety of cultures, so students can become more familiar with the diversity of vegetables and fruits available. As a class, have them categorize the fruits and vegetables according to their colours.
4. Lead a class discussion on why there are so many different coloured vegetables and fruits.
5. Vegetables and fruits have hundreds of nutrients that keep a person healthy. Define the term nutrient. Students record the definition in their notebooks.
6. Have students look up the term "phyto" (phyto comes from the Greek word for plant, so a phytonutrient is a nutrient that is found only in plants). Some phytonutrients give their plants colour and aroma so that orange carrots have different phytonutrients than blueberries and green spinach.
7. Using some of the vegetables and fruits that were brought to class, have a taste test. Serving sizes could be reviewed at this time.
8. Have students bring in flyers, newspapers and magazines that contain pictures of vegetables and fruits. Using these materials, individually, students cut out vegetables and fruits representing their colour group and create a Colour Me Healthy collage. Display collages in a visible location within the school for everyone to view.

(Freggie's Eat Smart Nutrition Unit, OAFE)

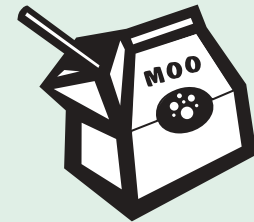


FOOD Wanted

ADS

Ask the students to read samples of newspaper ads. Tell them to write an ad for "Food Wanted". The ad should describe the food without saying what it is, and describe what function the food performs (e.g. Wanted: Cold, white food that pours from a glass. Should be able to satisfy thirst and build strong bones and teeth.). Once the students have finished, have them swap ads and try to guess what the food is. Afterwards, post the ads so that the students can review them from time to time as a way to test their knowledge of the function of food.

(Dairy Farmers of Ontario - Nutrition P.I. document)



5

- 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 healthy eating pattern and guidance of Canada's Food Guide are suitable for vegetarians. To ensure adequate nutrient intakes, vegetarians can choose a variety of meat alternatives such as beans, lentils, eggs, tofu, soy-based meat substitutes, nuts, nut butters and seeds.

6

- Satisfy your thirst with water. It also promotes hydration without adding calories to the diet.
- The body naturally loses water throughout the day. These fluids must be replaced.
- Soft drinks and sports drinks can add a significant number of calories to the diet.
- Fruit flavoured drinks are not nutritionally equivalent to 100% juices.

Influences on Food Choices

To have students understand what influences their food choices:

Start a discussion using one of the following questions:

- What is your favourite snack? Why?
- Which of the foods your parents buy regularly are your favourite? Why?
- Have you ever found yourself and a friend eating a snack that you would not have chosen if you had been on your own?
- Have you ever chosen a snack because you have seen it advertised on TV or in a magazine?

To help students make healthy food choices by using the information on food labels:

- Ask students to bring empty cereal boxes from home.
- Explain that the Food Guide recommends that we choose whole and enriched grain products more often.
- Ask the students how they can tell which cereals are whole grain and which are enriched. By looking at the name? The list of ingredients? The nutrition information panel? The claims on the box? The picture?

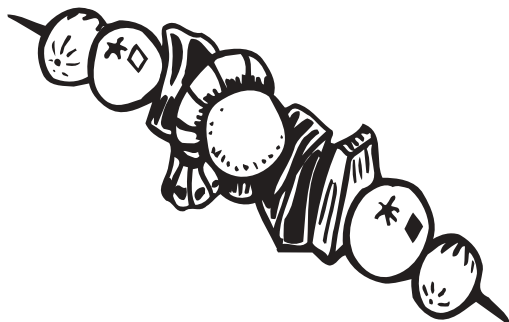
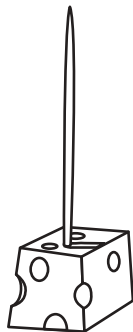
Hints to identify whole grains and enriched cereals:

- Look at the ingredient list. Whole grains like whole wheat, should be near the top of the list.
- You will know that the cereal is enriched if the nutrition information list includes these nutrients: iron (often listed as ferrous sulfate), niacin, riboflavin and thiamin.

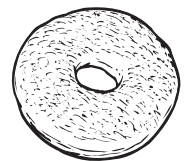
(Adapted from Canada's Food Guide to Healthy Eating - Focus on Children Six to Twelve Years - Health Canada)

Meal on a Stick

Give students pretzels or wooden skewers. Provide them with a variety of cheese cubes, cut-up fruit, cubed cooked meat, cubed bagels or French Bread, cut-up vegetables. Let them make a quick 'meal-on-a-stick'. Remind them of all the food groups that should be in a complete meal.

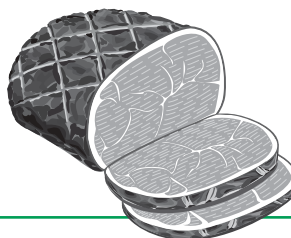


What's the Serving Size?



Have students investigate the serving sizes for the foods in the list below using Canada's Food Guide and food labels.

- | | |
|-----------------|-------------------|
| Apple juice | Ice cream |
| Bagel | Kidney Beans |
| Bread | Orange |
| Cheese slices | Peanut butter |
| Chicken fingers | Rice |
| Corn flakes | Sliced ham |
| Eggs | Spaghetti noodles |
| French fries | Yogurt |



Reading Food Labels

Junior



1. Have students collect packages from a variety of foods. Have the students examine packages to determine where the nutritional information is located. Then have them choose a label for closer study and ask them to determine the following information: What nutritional information is included? Where is the list of the ingredients located?
2. As a class, develop a chart to illustrate the differences between the ingredient list and the nutritional information.
3. Have students identify the words that they don't know. Descriptors such as "suggested serving", "cholesterol free", "source of dietary fibre", "low fat", and "sources of vitamins and minerals" are often used. Have students research their meanings. Ask them to suggest how these terms might confuse consumers.
4. For those labels that indicate a suggested serving, prepare the product as directed on the package and measure out the intended serving. Does the intended serving seem reasonable for an average person? Why or why not? Discuss the implications of eating more - or less - than the suggested serving.
5. How does the nutritional information change if the product has added ingredients in the preparation stage? (e.g. milk to cereal)?
6. As a class, brainstorm the purposes of having nutritional information on food labels. Compile a list of ideas.
7. In groups, students read a variety of food labels and identify products that contain a good source of each of the following nutrients: protein, carbohydrates, fat, calcium, iron and fibre.
8. Create a menu for a meal that contains all the necessary nutrients (carbohydrates, proteins, fats, minerals, vitamins, fibre and water). Refer to the labels for their information source.

(Labelling Literacy, OAFE)



Making Healthy Choices

1. Ask the students to bring to school their favourite snack that comes in a bag (pre-packaged). Have a bag of cookies, chips and other snacks available. Having each student use one of his or her snacks, show them how to read the labelling on the package. Have them identify what ingredients are not mentioned! What is the amount of sugar that has been added to the product? Salt? Have them read out some names of ingredients that they don't recognize.
2. Examine various labels on apple juice cans, apple bags, applesauce and other fruit cans and packages to compare ingredients and nutritional value. Compare these to the labels on the snacks.
3. Identify the differences and compare them to the recommendations in Canada's Food Guide.

(Ontario Apples: Nature's Fast Food, OAFE)



Soyfoods/- Food Labelling Activity

Junior

1. Have students work in groups and use the food labels provided (a variety of soyfood and non-soyfood labels) to locate the following information: protein content, fat content (total fat, saturated fat, mono-unsaturated fats, polyunsaturated fats, trans fatty acids, and cholesterol), carbohydrate content (total carbohydrates and fibre), other information. Have them record their findings in a chart.
2. As a class, have them compare the information that each group found for the protein, fat and carbohydrate content of soyfoods and non-soyfoods. Did they discover any other interesting information when doing this project?

(Soyfoods for You, OAFE)

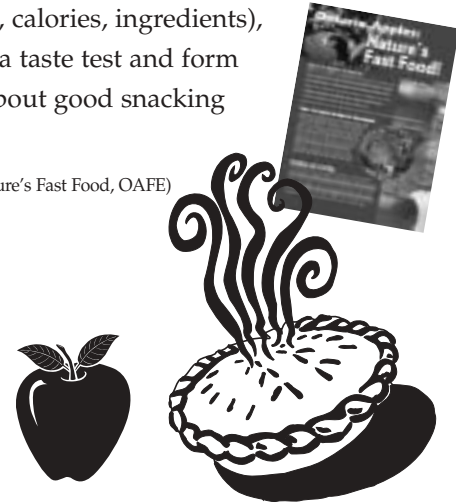


Good Snacking Foods

Junior

Create a display of a food that can be eaten in many forms - (e.g. apples - applesauce, apple cider, apple butter, apple pie, dried apple chips, etc.). Have the students compare the information on the food labels, (e.g. nutrients, calories, ingredients), participate in a taste test and form conclusions about good snacking foods.

(Ontario Apples: Nature's Fast Food, OAFE)



Food Additives - Salt

Junior

1. Ask students to estimate how much salt is added to their food in a week.
2. On a class chart, write down the estimates of the amount of salt that is added in a one week period.
3. Have the students collect information about the amount of salt that is actually added to their food for a period of seven consecutive days. This can be done simply, using the following technique. Each student carries a small unbreakable container (e.g. a 175g yogurt container or an empty film canister) and each time salt is added to the food, a similar amount is placed in the container. Have them ask the person who cooks the food in their home to indicate how much salt has been added to the cooked food.
4. At the end of each day, have them measure (with measuring spoons) the amount of salt that was added to their food. Record their totals in a journal. Some estimates will have to be made. For example, salt may already be in some foods that are used (e.g. luncheon meats) and the amount of salt added at home must be divided among the different people consuming the food.
5. At the end of seven days, compute the average amount of salt added to food.
6. Compare the individual results with those of their classmates.
7. Record the results of each student on a large horizontal graph on the wall. Calculate how much salt was added to the food. Calculate an average for the seven days. Compare the results with the predicted amount.
8. Suggest ways in which salt intake can be reduced.
9. Using their journals, have them record some simple solutions that could be made to lower salt in their diets. Have them reread their journals making special notes of their emotions on the days when their salt intake was higher. Did they feel better or worse? Draw conclusions on how salt makes them feel.
10. Have the students explain to a partner why eating healthy is important.



Additional activities - Have students look at a variety of labels and read the nutritional information to determine how much salt is in the average package of crackers, cookies, chips, etc.

(Labelling Literacy, OAFE)



Are Fast Food Restaurants Healthy?



Divide students into groups and have them research the food choices at various local fast food restaurants (students can use the internet to get this information). Ask the groups to plan a complete meal(s) from their menu. Were they able to plan complete meals from the choices available? Have students evaluate their choices. Did they make healthful selections? How could they reduce calories, fat in-take? How could they increase nutrients, fibre? Were there enough options available to do this? Have them share their results with the rest of the class.



Sources of Fat in My Food

Junior

There are many different sources of fat in our diets. Complete the following chart to determine the sources of fat in your diet.

| Sources of fat | Grain products | Vegetables and Fruit | Milk and Alternatives | Meat and Alternatives |
|--------------------------------|----------------|----------------------|-----------------------|-----------------------|
| Fats found naturally in foods | | | | |
| Fats added in processing | | | | |
| Fats added in home preparation | | | | |
| Fats added at the table | | | | |

(All About Food, OAFE)



Where's the **FAT?**



Provide the students with different types of food, some containing fat and some that don't.

Have the students rub a bit of each food on a piece of paper, labelling each 'rub' as they go.

Allow the papers to sit overnight and dry.

Hold the papers up to the light. Light will glow through the spots made by foods containing fat.

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When teaching Canada's Food Guide...

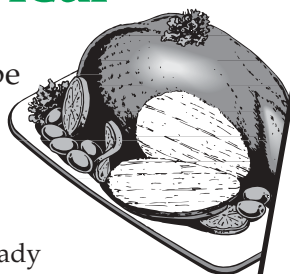
- Use terms such as "less healthy choices" to talk about foods high in fat, sugar or salt.
- Discuss ideas to help people make healthy choices from the four food groups at snack times and meals.
- Help students to become familiar with the Nutrition Facts table on food labels and to look for packaged foods that contain less fat, saturated fat, trans fat, sugar and sodium.
- Remember that physical activity is an important part of Canada's Food Guide.

Class Meal

As a follow-up activity to teaching Canada's Food Guide and healthy meals, plan a co-operative meal with the class. Divide the class into groups. Assign one of the food groups to each group. Have students write a letter home explaining what they have learned and requesting a food from their food group for the class meal.

Your Favourite Meal

Ask students to bring in a recipe for their favourite entrée.



Then have them:

- identify which food groups already exist in the recipe
- list the food groups that still need to be added to make a balanced meal (4 food groups)
- have them plan a complete meal including their entrée
- ask students to suggest ways in which they could make their meals healthier (e.g. reduce the amount of fat used, change cooking methods, use milk instead of water, use whole grain products instead of white)

Eating Out

Have students work in groups to plan a menu for a restaurant of their choice (try to have a variety of ethnic groups represented). Have them establish a theme for the restaurant and coordinate their food choices to match. When they are finished, the students can share their menus with the other groups. These students will plan a meal from the menus and then evaluate them afterwards according to the recommendations in Canada's Food Guide.

MENU

Internet Resources:

Active Living - www.activeliving.ca
American Heart Association - www.americanheart.org
Canadian Health Network - www.canadian-health-network.ca
Dairy Farmers of Ontario - www.teachnutrition.org
Dietitians of Canada - www.dietitians.ca
Eat Right Ontario - www.eatrightontario.ca
Health Canada - www.healthcanada.gc.ca/foodguide
Health Canada - www.hc-sc.gc.ca/nutrition
Heart and Stroke Foundation - www.hsf.ca
Media Awareness Network - www.media-awareness.ca
Mission Nutrition - www.missionnutrition.ca
National Institute of Nutrition - www.nin.ca
Ontario Agri-Food Education Inc. - www.oafe.org
The 5 to 10 a Day Program - www.5to10aday.com
Toronto Public Health - www.toronto.ca/health

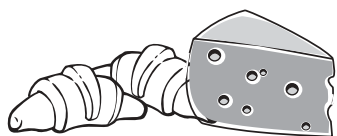
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- Drink skim, 1% or 2% milk each day.
- Select lower fat alternatives.
- Fortified soy beverage can be used as an alternative to milk.

Food Record



| | Weekday | Weekday | Weekend day |
|--------------|---------|---------|-------------|
| Morning meal | | | |
| Mid-day meal | | | |
| Evening meal | | | |
| Snacks | | | |



Totals by Food Group



| | Grain products | Vegetables and Fruit | Milk and Alternatives | Meat and Alternatives | Other foods (high in fat or sugar) |
|------------------------|----------------|----------------------|-----------------------|-----------------------|------------------------------------|
| Weekday total servings | | | | | |
| Weekend total servings | | | | | |

Analysing My Food Intake

Complete the following sentences with the words **more**, **fewer** or the **same**.

- I eat _____ servings of grain products as recommended by Canada's Food Guide.
- I eat _____ servings of vegetables and fruit as recommended by Canada's Food Guide.
- I eat _____ servings of milk and alternatives as recommended by Canada's Food Guide.
- I eat _____ servings of meat and alternatives as recommended by Canada's Food Guide.
- I eat _____ servings of other foods per day, on the weekend I eat _____ of this group than on weekdays.
- Two examples of how I am eating healthy are:
 - _____
 - _____

- Two ways I could improve are:
 - _____
 - _____



(All About Food, OAFE)

The following expectations listed from Kindergarten to Grade 8 are suggested curriculum connections for the activities provided in this newsletter.

HEALTH AND PHYSICAL ACTIVITY:

Healthy Eating

Grade 1:

- identify the food groups and give examples of foods in each group
- suggest occasions when they can choose healthy food snacks, and describe factors affecting their choices;

Grade 2:

- identify a balanced diet and apply decision-making skills to create menus for healthy meals;
- describe the importance of food to the body;

Grade 3:

- identify foods from different cultures and classify them by food groups;
- describe the benefits of healthy food choices, physical activity and healthy bodies;

Grade 4:

- outline the factors that influence body shape and size;
- analyse, over a period of time, their own food selections, including food purchases and determine whether or not they are healthy choices;

Grade 5:

- explain the purpose and function of calories and major food nutrients;
- identify critical information on food labels;

Grade 6:

- analyse personal eating habits in a variety of situations;
- describe the benefits of healthy eating for active living;

Grade 8:

- examine the effects of healthy eating and regular physical activity on body size and shape
- identify factors affecting healthy body weight.

SCIENCE AND TECHNOLOGY:

Life Systems

Grade 1:

- describe a balanced diet using the four food groups outlined in Canada’s Food Guide and demonstrate awareness of the natural items in the food groups;
- identify ways in which individuals can maintain a healthy environment for themselves and for other living things;

Grade 4:

- describe ways in which humans are dependent on plants and animals;

Grade 5:

- describe the types of nutrients in foods and their function in maintaining a healthy body;
- identify a balanced diet as one containing carbohydrates, proteins, fats, minerals, vitamins, fibre, and water, and design a diet that contain all of these;
- identify food sources from which people in various societies obtain nutrients;
- interpret nutritional information to make healthy food choices.

Teacher information to guide students in completing

Comparing Food Intake, page 2

What Canadians Eat

| | | | |
|-----------------------------------|----------|----------------------|----------|
| Flour & Cereal Products | 63.9 kg | Ice Cream | 6.4 L |
| Poultry | 13.6 kg | Potatoes | 75 kg |
| Milk | 63.1 L | Rice | 5.7 kg |
| Eggs | 13 dozen | Red Meat | 27 kg |
| Yogurt | 4.3 L | Fish | 6.9 kg |
| Cheese | 8.8 kg | Juice | 25 L |
| Butter/Margarine | 7 kg | Fruit | 133.8 kg |
| Coffee | 90 L | Vegetables | 77 kg |
| Tea | 81 L | | |