Acknowledgements

*Discover Healthy Eating! A Teacher’s Resource for Grades 1-8* was originally developed by Registered Dietitians, Nurses and Dental Educators in the Public Health offices of the Region of Peel, Toronto, and York Region with input from experts in the fields of physical activity, body image and multiculturalism.

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The Ontario Curriculum, Grades 1-8, Health and Physical Education:
Healthy Living Strand – Healthy Eating Component

The Healthy Eating component of the Healthy Living Strand in the 1998 Health and Physical Education Curriculum (Grades 1-8) summarizes the knowledge and skills students will gain as they progress through the grade levels.

Topics related to healthy eating include nutrition, disordered eating, body image, and dental health. Students require knowledge to make healthy eating choices. Using this knowledge, they will examine their own food choices and eating patterns, and then make wise decisions and set appropriate goals. In later grades, students will learn more about the factors that affect healthy body weight, and will increase their understanding of a healthy body image. Throughout the healthy living strand, the importance of healthy eating and regular physical activity is emphasized (Ontario Ministry of Education, 1998).

Purpose of this Resource

The purpose of this resource is the following:

- To support the implementation of the document The Ontario Curriculum, Grades 1-8: Health and Physical Education, 1998
- To assist the teachers to design a balanced instructional program with a broad selection of activities to address the learning needs of the students
- To increase nutrition knowledge and skills and to increase understanding of how healthy eating relates to growth and development
- To use Canada’s Food Guide as the key teaching tool for developing healthy eating patterns
- To promote lifelong healthy eating habits

Using this Resource

The Overall and Specific Expectations for Healthy Eating form the basis of this resource. For each Specific Expectation, a menu of activities is outlined to provide teachers with choices when designing their instructional strategy to meet the Curriculum and the different student needs within the classroom. To enhance and support the teachers’ knowledge base, Background Information, Glossary, and Additional Resources are included.
Why Teach about Healthy Eating?

As children grow they learn to make decisions and begin to make more choices on their own. They develop viewpoints and habits that form the foundation of their behaviours in adulthood. Many factors influence decisions of children and youth, including family, peers, adults who work with them, media, and school policies and practices. Teachers are important role-models in teaching students about healthy behaviours.

The Curriculum provides an ideal avenue for children and youth to explore the topics of food, nutrition, eating patterns, dental health and body image. Through various learning activities, students will become more knowledgeable and aware of the influence their own eating patterns have on their health and well being. In turn, students will increase their confidence in making health-enhancing decisions.

Issues and Concerns

Children are NOT eating enough nutritious foods:

- 7 out of 10 children aged 4 to 8 do not meet the minimum of 5 servings of vegetables and fruit daily (Garriguet, 2004).
- At ages 9 to 13, the figures are 62% for girls and 68% for boys (Garriguet, 2004).
- 1/3 of children aged 4 to 9 do not have the minimum recommended 2 daily servings of milk products daily (Garriguet, 2004).
- By ages 10 to 16, 61% of boys and 83% of girls do not meet their recommended minimum of 3 daily servings of milk products (Garriguet, 2004).
- 22% of boys and 33% of girls in grade 6 do not eat breakfast on all five weekdays. The proportion of students who don’t eat breakfast increases with grade level. (Boyce, 2004)
- Research suggests that breakfast skipping affects children’s ability to perform cognitive tasks, especially those involving memory. How much these effects are modified by age, sex, nutritional status, timing, size and composition of the morning meal is unknown (Pollitt et al, 1998).

Less healthy choices are displacing nutritious foods:

- For children aged 9 to 13, 22.6% of all calories come from foods that are not in Canada’s Food Guide’s 4 food groups. (Garriguet, 2004)
- 38% of boys and 36% of girls in grade 6 eat candy or chocolate 5 days a week or more. In grade 8, 46% of boys and 43% of girls eat sweets at least 5 days a week (Boyce, 2004).
- Approximately 1/3 of Ontario students in grades 4 to 8 consume soft drinks daily (Evers et al., 2001).

Children are NOT active:

- Over half of children ages 5 to 17 were not active enough to support optimal growth and development (CFLRI, 2000). Girls were less active than boys.
• Children aged 6 to 11 with more than 2 hours of screen time each day were twice as likely to be overweight/obese as were those whose daily viewing totaled 1 hour or less (Shields, 2005).

• A significant number of males and females between the ages of 10 and 14 are trying to lose weight or build muscle, despite being a healthy weight (McVey et al, 2002).

• Research is accumulating that shows that dietary and lifestyle modifications begun in childhood are likely to have benefits later in life (Deckelbaum, 1999).

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## Background Information Grades 1-3

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Background Information
Grades 1-3

1. What is Healthy Eating?

Healthy eating provides children with the energy and nutrients they need for:
- Healthy growth and development
- Academic performance
- Participation in regular physical activity

Learning about healthy eating not only means understanding Canada’s Food Guide, but it also means learning how to develop healthy habits that will last a lifetime. This section discusses principles of Canada’s Food Guide, as well as how to use the concepts of ‘everyday’ and ‘sometimes’ foods to teach children a positive approach to eating. Healthy snacks and meals, in particular breakfast, and their importance to the body are explained.

The background information also discusses the importance of physical activity, along with oral health.

1.1 Eating Well with Canada’s Food Guide

In 2007 Canada’s Food Guide to Healthy Eating was redesigned and renamed Eating Well with Canada’s Food Guide. This revision was intended to reflect the updated nutrient recommendations (Dietary Reference Intakes) and to help make the Guide easier to understand and use. Canada’s Food Guide describes the amount and types of food that are part of a healthy eating pattern. This type of pattern helps individuals meet their nutrient needs, reduce their risk of chronic disease and achieve overall health and vitality.

The four food groups are:
- Vegetables and Fruit
- Grain Products
- Milk and Alternatives
- Meat and Alternatives

Food Guide Servings help you understand how much food is recommended every day from each of the four food groups. A Food Guide Serving is simply a reference amount. In some cases, a Food Guide Serving may be close to the amount you eat, such as an apple. In other cases, you may serve yourself more than one Food Guide Serving, such as with rice or pasta, at one meal. It is important to note that the serving size on a nutrition label is not always equivalent to a Food Guide Serving or to the amount you normally eat.
Children in grades 1 to 3 can begin to have an understanding of the relationship between nutrition and health. Children can learn that healthy eating can help them be healthy now and in the future, have respect for themselves (i.e., their bodies/minds) and share eating experiences with people whose eating habits may be different but equally valuable.

Canada’s Food Guide recommends enjoying a variety of foods from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives and Meat and Alternatives. When discussing Canada’s Food Guide use the rainbow design to show that the arcs represent the proportion of food that you should have each day from each of the four food groups. For example, the Vegetables and Fruit group represents the largest arc on the rainbow and therefore this group makes up the largest portion of Food Guide Servings in a healthy eating pattern.

**The Four Food Groups’ Key Messages**

1) Vegetables and Fruit

**Eat at least one dark green and one orange vegetable each day.**
- Dark green vegetables are important sources of folate. Examples include broccoli, spinach, romaine lettuce, green beans, brussel sprouts and bok choy.
- Orange vegetables are rich in carotenoids such as beta-carotene, which the body converts to vitamin A. These include carrots, squash and sweet potatoes. Some orange-coloured fruit such as apricots, cantaloupe, mango and papaya are also important sources of carotenoids. You can eat them in place of an orange vegetable.

**Choose vegetables and fruit prepared with little or no added fat, sugar or salt.**
Most vegetables and fruit are naturally low in fat. Examples of higher fat choices include french fries, onion rings, salads with large amounts of dressing, and fruit served with cream. Fruit packed in heavy syrup has more sugar and adds extra calories. Choose fresh fruit, unsweetened frozen fruit or fruit packed in juice. Look at the Nutrition Facts table on the package to find the amount of fat and salt (sodium) in prepared and packaged vegetables. Use fresh or dried herbs, spices, flavoured vinegars or lemon juice instead of salt to enhance the flavour of vegetables.

Beware of packaged food with the word ‘fruit’ and ‘vegetable’ in their name. Examples of these types of foods include fruit snacks, vegetable chips, fruit jams, fruit ‘drinks’, ‘cocktails’ or ‘punches’ and ketchup. Most of these products are high in sugar, salt and/or fat, and contain little amounts of real fruit or vegetables. As a result, they do not belong to this food group.

**Have vegetables and fruit more often than juice.**
Vegetables and fruit contain fibre while their juices do not. Fibre can help you feel full and satisfied. Children should be encouraged to try a variety of vegetables and fruit.
Many of the fruit ‘drinks’, ‘beverages’ ‘cocktails’, or ‘punches’ are mostly sugar, with some vitamins added and do not provide children with the other vitamins and minerals naturally found in 100% pure fruit or vegetable juice. See section 1.4 Rethink What You Drink for more information on beverages.

2) Grain Products

**Make at least half of your grain products whole grain each day.**

Whole grains and whole grain foods are composed of all three layers of the grain seed or kernel:

- The bran (outer layer): provides all of the fibre as well as B vitamins; minerals such as magnesium, iron and zinc; **phytochemicals**; and some **protein**.
- The endosperm (middle layer): accounts for the majority of the weight of the grain and is composed mostly of **carbohydrate** and **protein**.
- The germ (inner layer): provides B vitamins, **unsaturated fats**, vitamin E, minerals and **phytochemicals**.

Examples of whole grains include brown rice, bulgur, pot barley, quinoa, whole oats or oatmeal, whole grain wheat and whole rye. You can find out if a product is made with whole grain by reading the ingredient list on the food label. Whole grain foods will have the words ‘whole’ or ‘whole grain’ followed by the name of the grain as one of the first ingredients.

Claims such as ‘Multigrain’, ‘Stone-Ground’ or ‘Made with Whole Grains’ do not indicate that the products is whole grain. Products with these labels may actually contain little to no whole grains. For example, some brown bread may really be white bread coloured with molasses.

**Choose grain products that are lower in fat, sugar and/or salt.**

Baked goods such as cakes, croissants, doughnuts, pastries, pies and most cookies and muffins will add extra **calories**, fat, sugar and/or **salt** (sodium) to the diet and should be limited. These foods are typically low in fibre and are not usually made with whole grains. Use the ingredient list and Nutrition Facts table on food labels to compare products and make informed choices. Choose products that have as little **trans fat** and **saturated fats** as possible. Avoid products that have ‘**partially hydrogenated**’ and ‘vegetable oil shortening’ in the ingredient list.

3) Milk and Alternatives

**Drink skim, 1% or 2% milk each day.**

Everyone should drink two cups of low fat milk each day to obtain adequate vitamin D. Drinking low fat milk is an effective way to consume **protein**, calcium, magnesium, riboflavin, vitamin A, vitamin B12, vitamin D and zinc while minimizing the amount of
**saturated fat** and **calories.** Calcium is essential for children’s growing bones and teeth.

**Fortified** soy beverage can be used as an alternative to milk. Rice, potato and almond beverages may be **fortified,** however, these types of beverages do not contain the level of **protein** found in milk and **fortified** soy beverage. Look for the word ‘**fortified**’ on the label of soy beverages, as only these contain added vitamins and minerals to make them a nutritionally adequate alternative. It’s important to shake the container since added calcium may stick to the package lining.

**Select lower fat milk alternatives.**
Lower fat yogurts are those with 2% milk fat (M.F.) or less. Lower fat cheeses have 20% M.F. or less. Selecting these lower fat products helps to reduce **saturated fat** intake.

| Cream cheese, sour cream and ice cream are not a part of the Milk and Alternatives food group since they tend to be higher in fat and sugar and their calcium content is very low. Also, the ‘chocolate bar’ milkshakes are high in sugar and fat. Chocolate or strawberry milk are healthy choices because they have the same amount of nutrients as white milk. |

4) **Meat and Alternatives**

**Have meat alternatives such as beans, lentils and tofu often.**
Beans, lentils and tofu are sources of protein, fibre and **folate.** Eating more of these meat alternatives helps to minimize the amount of **saturated fat** in the diet.

**Eat at least two Food Guide Servings of fish each week.**
Fish is a great source of **protein.** It is low in **saturated fat,** with some types containing **omega-3 fatty acids.** People are encouraged to eat at least two Food Guide Servings (150 grams) of fish each week to help reduce the risk of **cardiovascular disease.** Choose fish such as char, herring, mackerel, rainbow trout, salmon and sardines as these are good sources of **omega-3 fats.** Fish should be cooked using lower fat preparation methods, such as baking or broiling. Deep-fried fish or fast food fish sandwiches do not offer the same cardiovascular benefits.

Certain types of fish contain high levels of **methylmercury,** a strong toxin that concentrates in the muscle tissue of fish and shellfish. Higher **methylmercury** levels are typically found in large predatory fish, such as fresh white (albacore) tuna, shark, king mackerel and swordfish which accumulate **methylmercury** over their life span. Choose fish that are low in **methylmercury.** In terms of tuna, children should only be offered canned ‘light’ tuna instead of ‘white’ tuna.

**Select lean meat and alternatives prepared with little or no fat.**
Canada’s Food Guide emphasizes lean cuts of meat and skinless poultry to minimize the amount of **saturated fat** in the diet. Lean meat, poultry and fish become higher fat choices once they are fried, deep-fried or served with higher fat sauces. Canada’s Food Guide recommends baking, broiling, poaching or roasting them and allowing the fat to drain off.
Oils and Fats in our Diet
Oils and fats play an important role in supplying calories and essential fats, and to help our bodies absorb the fat-soluble vitamins A, D, E and K. The type of fat we eat is as important as the amount of fat. **Unsaturated fats** can help keep blood cholesterol levels healthy. There are two types of **unsaturated fats**: monounsaturated and polyunsaturated. Vegetable oils like canola, olive and soybean contain mainly monounsaturated and polyunsaturated fats. Canada’s Food Guide recommends that we include a small amount of **unsaturated fat** each day: 30 to 45 mL (2 to 3 tablespoons) in our diet. This includes oil used for cooking, salad dressings, and non-hydrogenated margarine.

**Saturated fats** and **trans fat** raise blood cholesterol and increase the risk of **cardiovascular disease**. **Saturated fats** are mainly found in animal products like meats, butter, milk, cheese and eggs. **Trans fat** is mostly found in processed foods containing shortening or **partially hydrogenated** oil, such as:
- cakes
- some cookies and crackers
- muffins, donuts, pastries
- chips and microwave popcorn
- french fries and hash browns
- breaded/fried products (i.e. chicken and fish)

**Trans fat** is also found in some hard (stick) margarines. When choosing margarine, people should look for soft margarines that are low in **saturated fat** and are **trans fat** free. Look at the Nutrition Facts table on the food label to help you choose products that have as little **trans fat** and **saturated fat** as possible. Look at the ingredient list to avoid products that contain ‘**partially hydrogenated**’ and ‘vegetable oil shortening’. Canada’s Food Guide recommends choosing foods that contain less total fat, **saturated fat** and **trans fat**.

Counting Food Guide Servings in Mixed Dishes
Children also need to understand that foods can appear in many different forms and that most meals are made of a mix of different foods. Mixed dishes such as casseroles, stews and stir-fries have ingredients from at least two food groups. It helps to describe and even demonstrate what happens to a food when it is cut, chopped, beaten, mixed, heated, cooled, or combined with other foods.

When looking for processed deli meat, it is best to choose those that are lower in fat, like chicken, turkey and black forest ham. Foods such as hot dogs, bologna, chicken nuggets etc. are not the best choices as they tend to be high in **saturated fat**.
Here are some examples of how to count Food Guide Servings in mixed dishes

**Chile Con Carne with Beans**

- 125 mL (½ cup) tomato sauce = 1 Vegetables and Fruit Food Guide Serving
- 125 mL (½ cup) celery, onion, stewed tomatoes = 1 Vegetables and Fruit Food Guide Serving
- 75 g (2 ½ oz.) ground beef = 1 Meat and Alternatives Food Guide Serving
- About 90 mL (6 Tbsp) kidney beans = about ½ Meat and Alternatives Food Guide Serving

**Dal**

- 125 mL (½ cup) tomato, onion = 1 Vegetables and Fruit Food Guide Serving
- 175 mL (¾ cup) lentils = 1 Meat and Alternatives Food Guide Serving

**Fajita with Beef and Vegetables**

- 125 mL (½ cup) sweet green pepper, onion, tomato = 1 Vegetables and Fruit Food Guide Serving
- 1 whole wheat tortilla (70 g) = 2 Grain Products Food Guide Servings
- About 35g (1 ¼ oz.) steak = about ½ Meat and Alternatives Food Guide Serving
- 5 mL (1 tsp) vegetable oil = part of your Oils and Fat intake for the day
1.2  Where Food Comes From

Many children believe that food comes from a grocery store or a restaurant. With the increased use of processed, convenience foods in colourful packaging, many children do not connect packaged items to the original basic or staple food from which it was produced.

It is important to talk about where food comes from. Children need to learn that most of the foods packed in their lunches or served at dinner come from farms, gardens or greenhouses. Our food comes either directly from crops or from the animals that eat the crops. Harvested food goes to the store where we buy it, prepare it and then put in on our plates. Food may also travel to large factories to be processed, packaged and transformed into products that may bear little resemblance to the original food. Children should appreciate how the foods are turned into every day products. It is important for them to realize that without farmers we would not have food. Children can have fun learning how staple foods produced by farmers are turned into every day products (e.g., What is made from potatoes? What is made from wheat?)

Vegetables and Fruit: Discuss that vegetables and fruit come from plants that are grown in fields, gardens and farms. Choices from the Vegetables and Fruit group come from many parts of plants, such as the root (e.g., carrots, radishes), the stem (e.g., celery, asparagus), the leaf (e.g., spinach, bok choy), the fruit (e.g., tomato, green pepper), or the flower (e.g., cauliflower, broccoli). Many vegetables that we eat are classified as fruits botanically because they contain seeds (e.g., tomato and cucumber). Fruits grow on trees (e.g., peaches, mangos, lemons), vines (e.g., grapes, pumpkins, melons), and bushes (e.g., blueberries, gooseberries).

Grain Products: Discuss that grains are plants that are harvested and made into grain products. Types of grains include: wheat, oats, barley, rice, corn and rye. These grains are harvested, ground into flour or used whole to make products such as bread, crackers, buns, oatmeal etc.

Milk and Alternatives: Discuss that milk, cheese, and yogurt come from cows and other animals (e.g. goats). Milk alternatives include fortified soy beverages for people who cannot drink milk. Soy comes from soybeans, a type of legume that is rich in protein and other nutrients.

Meat and Alternatives: This food group provides protein for many uses in the body, including building muscle, bone, skin and blood. Discuss how meat comes from animals: discuss pork, beef, chicken, wild game, etc. Meat alternatives are protein-rich foods that come from plants including: beans, lentils, nuts, seeds and soybeans. Eggs are also a source of protein in this group.

Ontario Agri-Food Education Inc. (OAFE) has many curriculum related resources that address the relationship between farm and plate. The Teacher's Toolkit is a reference guide of factual information and resources related to the agri-food industry. Curriculum connections for Grades 1 to 8 can be found at http://www.oafe.org/user_files/articles/toolkit_oafe.pdf. You can also go to www.oafe.org and click ‘resources’. 

Discover Healthy Eating! A Teacher’s Resource for Grades 1-8, 2009
1.3 Foods and Beverages to Limit

Canadians get 23% of their calories from the foods and beverages that are not part of the four food groups (Garriguet, 2004). Foods and beverages that are high in calories, fat, sugar and/or salt (sodium) and low in nutrients are considered foods to limit.

Examples of foods and beverages to limit:

- Cakes and pastries
- Chocolate and candies
- Cookies and granola bars
- Ice cream and frozen desserts
- Doughnuts and muffins
- French fries
- Potato chips, nachos and other salty snacks
- Alcohol
- Fruit flavoured drinks
- Soft drinks
- Sports drinks
- Energy drinks
- Sweetened hot or cold drinks

Portion sizes of foods to limit have increased considerably over the years, contributing to excessive caloric intake. This is why it’s important to be aware of portion sizes when selecting foods and beverages and to listen to your body’s hunger and satiety cues. Adults and children are encouraged to choose foods and beverages that are nutrient dense more often. By choosing foods from the four food groups we ensure that we are consuming nutrient dense foods and beverages.

1.4 Rethink What You Drink

Water
Canada’s Food Guide recommends drinking water to satisfy thirst. Water maintains normal body functions and prevents dehydration. Fortunately, in most areas of the province, municipal tap water is safe to drink. In rural areas many people use well water that needs to be tested regularly by the homeowner. This service is free from your local health unit/department.

Milk
Canada’s Food Guide recommends two servings of fluid milk daily for everyone. Youth 9 to 18 years of age should consume an additional 1-2 servings of Milk and Alternatives daily. Fortified soy beverage can be used as an alternative to milk. Chocolate milk is a healthy choice, as it contains the same nutrients as white milk and the same amount of sugar as unsweetened 100% orange juice.

Juice
100% vegetable or fruit juices can also be a healthy beverage choice, however, juice intake should be limited to about 1 cup per day for children. Vegetables and fruit should be consumed more often than juice to get more fibre and to help feel full and satisfied. When choosing fruit juice, it is important to look for ‘100% juice’ on the label. Many fruit drinks, punches and cocktails contain less than 10% juice and are mostly water and sugar.
Sweetened Beverages
Soft drinks and other sweetened beverages like fruit drinks, sports drinks and energy drinks contain large amounts of sugar with little nutritional value. These beverages have come to displace more nutritious beverages and foods from our diets. The consumption of these beverages should be limited.

Studies suggest that when we drink liquids, the body’s satiety cues are not triggered in the same way as eating solids. (Della Valle et al, 2005; and DiMeglio et al 2000). This means that our bodies do not register calories from liquids in the same way as calories from food. Therefore, we don’t make up for liquid calories by eating less solid food. This is exacerbated by the increased consumption and larger portion sizes of sweetened beverages over the last few decades.

Some beverages such as pop or energy drinks may contain caffeine. Energy drinks are not recommended for children and youth due to their high caffeine content. Caffeine can cause nervousness, irritability, headaches and difficulty sleeping. Drinking one can of pop with caffeine affects a child in the same way as three to four cups of coffee would affect an adult. Cola and diet cola drinks also contain phosphoric acid. Phosphoric acid weakens tooth enamel and increases the risk of dental cavities. It is important that nutritious drinks like milk not be replaced by pop or other sweetened beverages.

1.5 Understanding ‘Everyday’ and ‘Sometimes’ Foods
Children tend to classify foods as ‘good’ or ‘bad’. This classification will not help children develop a positive approach toward eating. Healthy eating is the total sum of all food choices made over time. It is the overall pattern of foods eaten over time and not any one food or meal that determines if an eating pattern is healthy.

To help children learn to follow a healthy eating pattern, it is more effective to classify foods as ‘everyday’ and ‘sometimes foods’. Foods which are nutrient dense can be considered ‘everyday’ foods. Foods from the four food groups, such as vegetables, fruit, milk, cheese, yogurt, whole grains, fish and legumes are examples of ‘everyday foods’ that we should choose for meals and snacks. Canada’s Food Guide describes the foods and beverages that do not fit into any of the four food groups as ‘less healthy choices’ and these can be considered as ‘sometimes foods’. These foods are low in nutrients and high in calories, fat, sugar and/or salt. See examples listed under the ‘Less Healthy Choices’ section. ‘Sometimes foods’ should be limited, but can be enjoyed occasionally. What matters most is what people eat on a regular basis.
1.6 Importance of Food to the Body

The importance of food should be explained in simple terms. “Food gives you energy to learn and play, it helps you grow and it keeps your body working”.

Canada’s Food Guide recommends how many Food Guide Servings children should eat from each of the four food groups every day. The amount of food eaten at each meal and snack will vary day-to-day depending on the child’s appetite, activity level and whether he or she is going through a growth spurt. Children need to eat small amounts of food regularly throughout the day because they have small stomachs that tend to fill up quickly. Children should be offered healthy foods and beverages at all meals and snacks to ensure they are meeting their calorie and nutrient needs. It is important that children listen to their hunger and satiety cues. When teaching about healthy eating, children should be encouraged to listen to their bodies and to eat healthy foods when hungry and to stop when they feel full. Children can often relate to the need for food when they think of how they feel when they don’t eat breakfast.

Healthy Breakfast

Children who eat a nutritious breakfast daily may be better prepared to participate in learning activities than those who do not eat breakfast (Ontario Society of Nutrition Professionals in Public Health (OSNPPH), 2004). Children who do not eat breakfast daily are 1.5 times more likely to be overweight (Veugelers et al. 2005).

A complete breakfast should include foods from 3-4 food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. A variety of different foods for breakfast helps to ensure that the body gets the nutrients and energy that it needs. Foods served at breakfast do not have to be ‘traditional’ breakfast foods such as toast or cereal. All kinds of food can be eaten. For example, people from some cultures may eat soup, rice, fish, dal, tortilla, leftover pizza or pasta for breakfast.

Breakfast does not have to be eaten as soon as a child wakes up, or even before the child leaves the home. If breakfast can’t be eaten at home, eating a ‘traveling’ breakfast or arriving early and eating at school are also possibilities. Some schools have universal breakfast and/or snack programs for children (see the ‘Healthy Snacks’ section below for more information).

Healthy Snacks

Young children need healthy snacks in between meals to ensure that they get an adequate intake of nutrients to meet their growth and activity demands. Packing a healthy snack to eat during recess can also help a child through the later part of the morning or afternoon. Research indicates that most children do not meet the minimum five servings of Vegetables and Fruit (Garriguet, 2004), so it is recommended to choose vegetables and fruit more often as snacks. Children should be encouraged to pack snacks that include foods from at least one of the four food groups. For classroom snacks shared among the whole class, serve only ‘everyday foods’ instead of ‘sometimes foods’. For example: fruit, vegetables, yogurt, whole grain crackers and/or lower fat cheese as opposed to doughnuts, cupcakes, candy, etc.
Student Nutrition Programs allow all students to have at least one healthy meal or snack each day without singling out those who may come to school hungry. The Ontario Ministry of Children and Youth Services funds Student Nutrition Programs, which can be found in some elementary and high schools. These programs are developed by local schools and community agencies, are mostly run by volunteers (i.e. parents, teachers and school staff), and follow Ministry guidelines for nutrition. For more information on Student Nutrition Programs, go to the Ministry website at: http://www.gov.on.ca/children/english/programs/beststart/nutrition/index.html. For local programs contact your local health unit/department.

2. Factors Influencing Food Choices

For children, eating is usually a social occasion with the people in their lives, including parents, older adults, peers, and siblings. Observing others’ eating behaviour also influences the development of children’s own preferences and eating behaviour (Birch and Fisher, 1998). Eating behaviour can also be influenced by culture, family, personal likes and dislikes, etc. The media is also highly influential with regards to food selection, body image and self-esteem.

As children become older, sources of food and influences on eating behaviour increase (American Heart Association, 2006). At a young age, adults provide all meals and snacks; at older ages, children begin daycare, go to school, begin to prepare their own snacks, and purchase more meals and snacks outside of the home. These factors also influence children’s food choices, eating behaviour, body image and self-esteem.

2.1 Individual Preferences

Children’s food preferences are often guided by taste or preference (Taylor et. al., 2005). Children choose foods because they taste good and because eating those foods makes them feel good. For example, some foods (e.g., candy, cake) are associated with special occasions where people tend to be happy. Often people will eat out of habit rather than responding to hunger cues like eating while watching television. These factors can lead to less healthy choices.

Children come to like and eat what is familiar. What is familiar is usually what is present in the environment (Birch and Fisher, 1998), consequently making the food environment that surrounds children very important. Healthy choices should be available in all settings, including at home and at school, so that children are exposed to a variety of healthy foods. For example, dislike for vegetables is one of the three most important predictors of fruit and vegetable intake in children (Taylor et al., 2005). However, if children are eating vegetables and fruit with friends in a social setting, this can influence what types of foods they ‘like’.
2.2 Allergies

The incidence of life-threatening food allergies is increasing. Allergic reactions can happen anywhere - at home, in school or recreational facilities, at camp and on field trips. Severe allergic reactions (e.g. anaphylactic shock) occur when the body's immune system reacts to a particular allergen or irritant. Nine food substances are most frequently associated with food allergies and allergic-type reactions. These substances are often referred to as the nine priority food allergens and include peanuts, tree nuts, sesame seeds, soy, milk, eggs, seafood (fish, crustaceans and shellfish), wheat and other cereal grains containing gluten, and sulphites.

Children with allergies face many situations at school which could potentially place them at risk for exposure to food allergens. Contamination of tables, desks, books or toys with the foods, or inadequate or infrequent cleaning of tables, desks, and equipment can result in exposure to allergens. Other occasions that can pose risk include: sharing foods between children, special occasions and parties where food is served and/or available. It is important that all school community members are aware of the potential life threatening nature of food allergies and the proper treatment of an allergic reaction.

In 2005, the provincial government passed a bill known as ‘Sabrina’s Law’ to create safer school environments for children living with life-threatening allergies. Under the law school boards are required to have allergy management plans and training in place for all schools. School anaphylaxis plans ensure that children at risk are identified, strategies are in place to reduce the risk of exposure to allergens, and school staff is trained to respond to emergencies.

Sabrina’s Law can be found at:
http://www.edu.gov.on.ca/eng/healthyschools/anaphylaxis.html

More information on severe allergic reactions can be found on the Health Canada website at:
http://www.hc-sc.gc.ca/iyh-vsv/med/allerg_e.html

Health Canada and the Canadian Food Inspection Agency have created a series of pamphlets with information on each of the nine priority food allergens. These can be found at

2.3 Culture

Food is only one aspect of cultural traditions, yet it is probably one of the most talked about. In different cultures food can be a source of pleasure, comfort, security, and a symbol of hospitality, social status and religious significance. Culture can influence what we select to eat, how we prepare and serve it, and even how we eat.

The Canadian population consists of many diverse ethno-cultural groups, providing an ideal opportunity to choose from a large variety of foods. For example, pizza and a variety of pasta dishes came from Italy, sausages and hamburgers from Germany, stir-fry dishes from China, and pita bread sandwiches from Lebanon. People from different ethnic backgrounds have
traditionally based their food choices on what has grown in the climates of their country of origin. For example, North Americans have traditionally built their meals around wheat or corn, and Asians around rice. Colder countries, like Scotland, have relied on heartier grains such as oats and barley. Special foods that people eat on holiday occasions are also related to ethnic background. For example, many families have special food practices associated with festivals and days of significance.

The school community can help children to learn about the differences in peoples’ eating habits, likes and dislikes, and culture. This learning helps to support the diversity in healthy eating patterns. Students can learn that people from other parts of the world can choose different, nutritious foods (e.g., bread, rice, tortillas or roti). Parents are usually interested in sharing ethnic food and recipes. Discussion in the classroom about different foods can enable each child to feel individually involved by including foods that relate to their own eating habits.

Before discussing the food practices of multicultural groups, understand their value systems. Food habits are greatly influenced by a group’s values and perception of healthy foods. This can differ from one cultural group to another. Because of family, culture, and religious reasons, some children may not eat foods from the four food groups, but are still able to meet their nutritional needs. It is important that you do not make the students feel that one value system and food practice is superior to another.

When there is discussion around cultural foods:
- Do not assume that students from a particular group have or have not adopted the food and dietary practices of the general Canadian population. Ask students to share their family’s food practices and eating patterns.
- Ask questions with an open mind – don’t be judgmental; children sharing food experiences can help establish trust, as well as knowledge, among classmates.

To support your teaching efforts in the classroom, translated copies of *Eating Well with Canada’s Food Guide* are available. Visit Health Canada at [www.healthcanada.gc.ca/foodguide.ca](http://www.healthcanada.gc.ca/foodguide.ca) for more information.

### 2.4 Family and Traditions

Parents are children’s most important source of information and influence for healthy eating. Parents shape children’s eating behaviour in a variety of ways: by the choice of an infant feeding method (i.e., breastfeeding or formula feeding), by the foods they make available and accessible, by direct modelling influences, by the extent of media exposure in the home, and by the way they interact with children in the eating environment (Birch and Fisher, 1998).

**a) Parental role-modelling** is important in establishing children’s food choices. Depending on their own food choices, parents can either be positive or negative role models (AHA, 2006). An example of positive role-modelling is when parents eat breakfast, it’s likely that their children will do the same. Meanwhile those who reward children with high-fat/high-sugar foods or
restrict the intake of such foods, generally have children who develop an increased preference for these foods. Modelling certain behaviours may play a role in the emergence of dieting activities in childhood and adolescence. For example, research suggests that dieting daughters are likely to have dieting mothers and that parents who report problems in controlling their eating are likely to have daughters who show similar patterns (Birch and Fisher, 1998).

**b) Family meals** can have a positive influence on children and youth food selections. Family eating patterns include what, when they eat, where they eat and why they eat. These eating patterns accommodate the schedules, family size, and activity levels of different members. Families that eat meals together are associated with higher intakes of vegetables and fruit, milk products and improved nutrient intakes (Taylor et al., 2005). Children who eat together with the family have also been shown to have healthier eating habits (Gillman et al., 2000), do better in school, and have more self-esteem (Eisenberg et al., 2004).

**c) Family income** is another factor that influences what children eat and the food choices that are available to them. Everyone has a right to access healthy foods. However, due to a variety of reasons, families might not have the means to offer healthy choices at home.

Food security is said to exist when people can get enough food to eat that is safe, that they like to eat and that helps them to be healthy. They must be able to get this food in ways that make them feel good about themselves and their families (Ontario Public Health Association, 1995).

There are many reasons why families may not have enough money to obtain food. Factors that affect the ability to shop for and prepare nutritious foods include inadequate household income, lack of time, lack of knowledge and skills, a single parent household, etc. High unemployment, low incomes for the working poor, high housing costs, transportation and other basic necessities, and inadequate social assistance payments all contribute to the poverty which limits access to a healthy diet (OPHA, 1995). Low literacy levels, a lack of opportunities for skill development and lack of childcare make it difficult for people to access healthy food (OPHA 1995).

It is important for teachers and other school community members to be sensitive to the fact that the foods children bring to school (e.g., in lunch bags, for snacks) will be influenced by the home situation and the level of food insecurity experienced by their parents and caregivers.

Well-documented research shows that there is a clear link between good nutrition and school performance (OSNPPH, 2004). Well-nourished children do better and behave better in school. Students may come to school hungry because they have missed breakfast, have forgotten their lunch or their family is unable to consistently provide lunch. Hunger affects students in various ways. Some may become tired while others may become hyperactive. Other warning signs may include aggressive behaviour, irritability, high anxiety, depression, difficulty concentrating, stealing food, short attention span, and anti-social behaviour. Keep in mind these warning signs may instead indicate an underlying medical condition such as diabetes, an eating disorder or allergies.
Actions You Can Take if a Child is Hungry

- Speak to the parent/caregiver to try and determine why the child might be hungry.
- Offer the student an opportunity to eat part of their lunch or snack before the next scheduled snack or meal.
- If your school has an emergency food pantry, offer the student a snack until they can have their next meal. Stock the pantry with non-perishable food items from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. Consider storing perishable milk products in the school’s refrigerator if space allows.
- Contact your local public health unit/department for more information about community food programs that can assist the family.
- If hunger is a chronic issue for the student and their family, speak to the principal about other options for support.

2.5 Peers

Although children identify strongly with their family, positive role-modelling of healthy eating can also come from children’s friends and classmates. Peer pressure influences children of all ages. Acceptance in a peer group can depend on eating, liking and doing the same things as the other children in the group. If children see their classmates and friends enthusiastically eating healthy foods such as fresh fruit and vegetables, they will be more willing to enjoy them as well. Offering healthy choices for classroom celebrations provides the perfect opportunity for children to socialize and role model healthy eating behaviour with each other.

2.6 Volunteers and Professionals Who Work with Children

Positive role modeling of healthy eating and positive body image by adults working with children encourages students to value and enjoy healthy eating and promotes student preferences for healthy foods and beverages (Creating a Healthy School Nutrition Environment Health Unit Collaboration, 2007). Teachers, along with other school community members (e.g., secretaries, coaches, custodians, and school bus drivers) can have powerful effects on children through the examples they set. Outside the school environment, camp leaders, coaches and others who work with children can also strongly support or hinder what children know about healthy eating and healthy living.

When planning class trips or special events, ensure that parent volunteers or other adults reinforce the healthy eating education learned in the class. For example, encourage them to pack nutritious lunches or drink water instead of pop. Discourage the use of foods as a reward for good behaviour, instead, offer a class reward such as extra physical activity time upon return to the school.
2.7 School Environments

In addition to providing opportunities for academic learning, schools have the capacity to enhance students’ health, self-esteem and development of lifelong skills and healthy eating behaviour. Schools are one of the most effective and efficient ways to reach almost all children, school personnel and families (World Health Organization, 1998).

It is important to help your school create an environment that supports healthy eating. A Healthy School Nutrition Environment occurs when students get the same message about food, nutrition and healthy eating wherever food is served – in the classroom, in the school and at home. An environment that supports healthy eating may influence the child’s preference for certain foods. For example, research has shown that children consumed more fruit and vegetables when schools served such foods. The authors concluded that the extent to which fruit and vegetables are made available and accessible to children may shape children’s liking for consumption of those foods (Birch and Fisher, 1998).

A healthy school nutrition environment is made up of nine essential elements (OSNPPH, 2004). Below is a list of the elements along with some questions to think about to help in practicing all nine elements.

1. Provide healthy, reasonably priced and culturally-appropriate food choices. For example when you have a classroom party, are healthy food choices offered? Do you reward children with non-food rewards?
2. Encourage positive role modeling of healthy eating by school staff and volunteers. Do you eat and drink healthy foods and beverages when in the presence of students?
3. Offer daily universal Student Nutrition Programs. Does your school have a snack or breakfast program?
4. Ensure safe food practices and allergy-safe surroundings. Do you monitor how the food-safe policy is being followed?
5. Schedule nutrition breaks at appropriate times. Are students getting a full 20 minutes to eat their lunch?
6. Implement school food and nutrition policies. Does your school have a food and nutrition policy that addresses all foods and beverages being sold or offered in school?
7. Offer nutrition education for staff. Do you participate in professional development opportunities on nutrition?
8. Offer nutrition education for students. Do you have up-to-date nutrition resources to support the healthy eating expectations in the curriculum? Are you devoting enough time to teaching the healthy eating expectations from the curriculum?
9. Provide student, parent and community education about healthy eating? For example, do you include nutrition activities that involve students’, parents and families?
Some of these elements can be directly influenced by teaching staff.

To learn more about healthy schools, contact your public health unit and/or visit www.osnpph.on.ca and click on New Publications Call to Action: Creating a Healthy School Nutrition Environment.

2.8 Media Messages

Advertisements, TV shows, movies, celebrities, sports stars, video games, songs, and photographs can have a big influence on children and on their food choices. Children absorb a great deal of information from the media but are often not aware of how much influence it can have on their food choices. Advertisers use a variety of techniques in their advertisements to encourage children to consume foods that are high in fat, sugar and calories. Techniques may include nutrition claims, give-aways/prizes, testimonials, new/improved statements, claims of social success, jingles and humour.

Media can have a powerful influence on how young people view themselves. Young children are not always clear about the difference between advertising and reality. Advertisements can give them a distorted image of the world and of unrealistic body shapes and sizes. The media tends to provide images of acceptance that make young people feel inadequate or unhappy with the bodies and lives that they have (www.mediacs.ca). It has been found that the reading of teen or fashion magazines is correlated with body dissatisfaction (Jones et al, 2004). Studies show that girls compare themselves to media images and as a result, feel worse about themselves (Then, 1992).

It is not always easy to resist pressures from the media to conform to an ‘ideal body image’. The media creates a distorted picture of reality by:

- Frequently propagating myths and falsehoods;
- Normalizing and glamorizing what is abnormal or unhealthy; and
- Creating the false impression that all women and men are the same by not representing whole segments of the population;
- Sending the message that one must continually improve and that they are never good enough.

Media has been shown to have an effect on body image dissatisfaction in both males and females. Research suggests that a very high percentage (up to 80%) of girls and women in our society are dissatisfied with their bodies and about 40-60% of males are dissatisfied with their body shape (The Student Body http://www.aboutkidshealth.ca/thestudentbody/). A lot of girls are taught at a young age that looking a certain way can mean having power and control.

Boys are also affected by pressure to be a certain shape based on current ideals. Fitness, muscle and body sculpting magazines and products are increasingly targeting them. Studies suggest that the body concerns of most boys focus on building muscle mass and sculpting rather than reducing body weight. The value being taught to them through the media is that only physical ‘perfection’ is acceptable.
Media literacy has been included in the curriculum for the primary grades as a prevention strategy to teach students how to critically analyze media messages and ask the right questions about the messages and intentions. Media literacy can improve students’ body image and decrease their risk of eating problems when students understand that media images are unrealistic and often manipulated to create perfection (O’Dea, 2005, McVey et al., 2003). Teachers, family members and other community members need to be good role models and examine their own media habits and how they may influence the children and youth that are observing them. Limit the amount of time spent using media, especially with young children. Avoid using large corporations that provide unhealthy food choices for teaching materials e.g., fast food or for fundraising or funding opportunities for children’s events.

3. Physical Activity and Children

Physical activity, like healthy eating, is essential for healthy growth and development. Regular physical activity in childhood develops cardiovascular fitness, strength, flexibility and bone density. Encouraging children to build physical activity into their daily routine helps to create a healthy pattern that may stay with them for the rest of their lives. Every child, no matter their age, height, weight, natural abilities or skills, needs to be physically active to be healthy and strong. Everyone has different interests, abilities and strengths, so they need to be introduced to a variety of activities, and children need to know that sports are not the only way to be active. Identifying other activities that are not competitive is essential. Some activity ideas include:

- Building a snowman
- Skating
- Swimming
- Roller-blading
- Bowling
- Chasing the dog
- Climbing trees
- Tobogganing
- Throwing a Frisbee
- Playing catch

3.1 What is Active Living?

Active Living promotes a way of life in which physical activity is valued and integrated into daily life, whether it’s taking the dog for a walk or riding your bike to the store. It stresses the importance of doing activities that feel good and that are moderate and fun. It is more than fitness and sport - it is a commitment to a healthy mind, spirit and environment, all linked through physical activity. Active living encourages everyone, not just people who are young and fit, to get up and get moving. *Canada’s Physical Activity Guide to Healthy Active Living* supports the concept of active living.
When fun and enjoyment are part of skill development and physical activity, children are more likely to develop a positive attitude towards healthy active living. Children may need to be given both encouragement and the opportunities to get up and move. Parents and educators can have a role in promoting this message to children. Integrating physical activity as an enjoyable part of their daily lifestyles helps to prevent heart disease, bone disease and other health conditions. Young people who are physically active are also less likely to smoke, drink, or do drugs, and more likely to have healthy eating habits (Prince Edward Island Healthy Eating Alliance, 2005).

**Benefits of active living:**
- Improved fitness
- Better sleep and more alert
- Fun
- Healthy body weight
- Healthy heart and lungs
- Relaxation
- Optimal learning ability
- Positive feelings about self / self-confidence
- Strong muscles and bones
- Flexibility
- Good balance and posture

3.2 How much Physical Activity should children get?

*Canada’s Physical Activity Guides for Children* and *Youth* provide a set of national guidelines to help children and youth improve their health through regular physical activity.

The Guides recommend children and youth (Public Health Agency of Canada, 2002):
- Increase the amount of time currently spent doing physical activity by 30 minutes per day in periods of 5-10 minutes. Over several months, children and youth should try to accumulate over 90 minutes of physical activity per day.
- Reduce non-active time spent on sedentary activities like watching TV, videos, surfing the internet and playing computer games, starting with at least 30 minutes less per day and eventually try to eliminate at least 90 minutes of non-active time.

3.3 Types of Physical Activity

There are three different types of physical activities that help keep the body healthy. A variety of each type of activity together will provide the most health benefits.

**Endurance activities** help the heart, lungs, and circulatory system stay healthy and also provide more energy. They make you breathe deeper, your heart beat faster, and make you feel warm. Examples include walking, cycling, skating, taking the stairs and dancing.
Flexibility activities help move the body easily, keep muscles relaxed and joints mobile. This involves gentle reaching, bending, and stretching all of the muscle groups. Examples include bowling, curling, gardening and yoga.

Strength activities help the muscles and bones stay strong and improve posture. Examples include lifting weights, wearing a backpack carrying school books, carrying groceries, and exercises like abdominal crunches and push-ups.

3.4 Physical Activity at School

The Ontario Ministry of Education supports and promotes the participation of students in Daily Physical Activity (DPA) and has implemented a policy on this entitled, Policy/Program Memorandum No. 138, ‘Daily Physical Activity in Elementary Schools, Grades 1–8’, October 6, 2005. This policy requires that all students in Grades 1 to 8, including students with special needs, be provided with opportunities to participate in a minimum of twenty minutes of sustained moderate to vigorous physical activity each school day during instructional time. The goal of DPA is to enable all elementary students to improve or maintain their physical fitness and their overall health and wellness, and to enhance their learning opportunities.

The electronic versions of The Ontario Curriculum, Grades 1–8: Health and Physical Education, 1998, which are posted on the Ministry of Education website at http://www.edu.gov.on.ca, have been revised to reflect this requirement. On this website, there are also a variety of DPA resources available as PDF files for teachers to download.

Teachers can play a large role in teaching students about the need for physical activity. Teachers can create a classroom environment that values physical activity by including DPA or other related activities and by encouraging students to try something new. Introduce new activities and let them try them in the classroom. You may want to initiate a class physical activity project for a week or month, in an effort to get them to be more active every day. The most important concept is that the kids find physical activity fun! Do not make physical activity a punishment, for example having them miss recess or doing laps around the track, as this will take the fun right out of physical activity!

4.0 Oral Health

Optimal oral care is an integral part of total health. Healthy teeth and gums contribute in many ways to our everyday lives. Healthy teeth should last a lifetime if they are cared for properly!
Primary and Permanent Teeth

We obtain two sets of teeth: primary and permanent.

Primary Teeth
The primary teeth consist of 20 teeth: 10 lower teeth and 10 upper teeth. They are important for eating, talking, smiling and self-esteem. The primary teeth also save spaces for the permanent teeth. When the permanent tooth is ready to erupt, the roots of the primary tooth resorb to allow it to fall out. The permanent tooth then has room to move into the space.

Permanent Teeth
The permanent teeth consist of 32 teeth: 16 lower teeth and 16 upper teeth, and are also important for eating, talking, smiling and self-esteem. The first permanent teeth that appear in the mouth are the 6-year molars. They come in at the very back of the mouth, usually at 5 or 6 years of age. Permanent teeth are meant to last a lifetime.

Plaque
Plaque is a soft, sticky, and colourless layer of bacteria that is constantly forming on the teeth, even in the absence of eating. It clings to the teeth especially near the gum line, on the surfaces next to the other teeth, and in the pits and grooves. Plaque is recognized as the primary cause of the two most common oral diseases, tooth decay and gum disease.
The Relationship between Plaque and Dental Decay
The most widespread disease in children is dental decay. For dental decay to occur there must be three things present. There must be plaque, sugar and a tooth. When food is eaten, the plaque bacteria react to form acid. This sticky plaque then holds the acid to the tooth surface, allowing it to attack the tooth. Each attack lasts 20 minutes and with repeated acid attacks, the surface of the tooth begins to dissolve and a cavity results.

The Decay Process

1. Enamel, the hard outer protective covering of the tooth, is broken down by the acid.

2. If left untreated, the decay will spread into the dentin, a slightly softer layer that forms the bulk of the tooth.

3. If still left untreated, the decay penetrates to the pulp, the soft centre tissue containing blood vessels and nerve tissue. An infection (abscess) may form at the root of the tooth. At this point, if the tooth is not treated with root canal therapy, infection may spread into the blood stream.

Sugar and Tooth Decay
Sugars come in many forms and names (e.g., honey, fructose, sucrose, lactose, glucose, corn syrup, corn sugar, honey, maple sugar, invert sugar and molasses). Whether the sugars are in candy, cookies, milk, fruits, breads or cereals, they all can contribute to tooth decay.

Consider the following when evaluating if a food is a good dental snack:

- Limit the use of soft sticky, sugary foods in between meals – reserve foods (such as dried fruit, fruit snacks and sticky baked goods) for mealtimes or when children can brush their teeth afterwards.
- Set snack times as opposed to snacking on demand, to minimize acid attacks on the teeth.
- Avoid beverages containing added sugar and choose water and milk most often for hydration. Water with fluoride also helps prevent cavities.
- Avoid fruit drinks and pop as drink choices. These beverages contain little or no nutrients and have lots of sugar. Diet pop has no sugar but does contain phosphoric acid which can cause tooth erosion.
- It is not necessary to avoid all sweets, but the frequency of intake should be limited.

These simple guidelines help encourage students to make good food choices and be tooth smart!
**Protective Foods**
Eating a piece of cheese after a meal or snack may actually protect teeth against cavities. Cheeses such as cheddar, Swiss, blue, Monterrey Jack, mozzarella, brie and gouda contain ingredients that have been shown to protect teeth from acids and help keep teeth strong.

**Brushing Teeth**
Brushing teeth is one of the most effective ways of removing plaque from all surfaces of the teeth. It takes at least two to three minutes to properly brush teeth and gums. Teeth should be brushed at least twice a day- in the morning and in the evening before bedtime. Supervision and assistance is required for children until they can effectively remove plaque throughout the mouth. Children do not usually reach the same level of toothbrushing ability as adults until they can write. If toothbrushing is not possible during the day, rinsing the mouth with water may help to prevent decay.

**Brushing Methods**
Students should be given some basic advice to help them develop proper brushing habits. There are many toothbrushing methods available. The method taught will always depend on the dexterity and maturity of the student. It will be up to the dental professional to evaluate his/her skills and then decide on the most suitable method. Students should grasp the brush handle in the palm of the hand; close to the brush head so they can control it easily. The handle should be comfortable to hold. Encourage students to use the easiest motion that allows them to clean the most surface area of the teeth, gums and tongue. Explain that children are to clean the ‘outsides’ (surface of teeth against cheek), the ‘insides’ (surface of teeth against tongue) and the ‘tops’ (chewing surfaces) of the teeth and the tongue. Emphasize they must clean the back teeth, not just the front teeth! A counting system will encourage thorough coverage and help the students concentrate on brushing; have them count five to ten strokes in each area.

**Toothbrushing Tips**

**Do!**
- Choose a brush with soft bristles
- Use an age-appropriate sized brush
- Always rinse your toothbrush after brushing and store it where bristles can dry
- Replace your toothbrush when it is worn. A worn brush does not clean properly. The Canadian Dental Association recommends replacing your toothbrush every 3 months, or after infectious illnesses.
- Use only a pea-sized amount of fluoridated toothpaste

**Don’t!**
- Share your toothbrush with anyone
- Use your toothbrush for anything except brushing your teeth
- Forget to brush – especially before going to bed
- Swallow toothpaste, instead spit out the excess.
**Dental Floss**

Flossing helps to clean between our teeth and gums. Dental floss removes plaque and debris from between the teeth where the toothbrush can’t reach. The use of dental floss also helps to protect against gum disease. It removes the plaque that builds along the gum-line. Remember, gums are important too! Thorough flossing once a day can help to prevent tooth decay and gum disease. As soon as the child has sufficient manual dexterity they should begin to floss. Encourage students to ask their dental health professional, parent or caregiver to teach them to floss. Remind them that although they might find flossing their teeth awkward at first, with continuous practice they can develop this skill.

**Fluoride**

Fluoride is a naturally occurring mineral found in water, soil, rocks, air, and in some foods, plants and animal tissues. The Canadian Dental Association (CDA) supports the appropriate use of fluorides in the prevention of dental caries as one of the most successful preventive health measures in the history of health care. However because of the availability of fluoride from a variety of sources, exposure to more fluoride than is required to prevent dental caries may cause dental fluorosis, particularly in children under the age of 6 years. Mild fluorosis appears as chalky, white spots in the enamel of permanent teeth. There is no evidence of any health problems being created by such exposure, but it can cause cosmetic concerns.

**Sources of Fluoride**

**Fluoridated Community Water**

Water fluoridation is safe and is the most cost effective method to reduce the occurrence of dental decay in unerupted and developing teeth. Some communities do not have fluoride added to their municipal water supply. For more information about your water supply, contact your local health unit/department.

**Topical Fluoride Treatment**

This is a concentrated form of fluoride applied by a dental health professional. In selected cases where children are susceptible to dental decay, a dentist or dental hygienist will indicate the need for professionally applied topical fluoride. This form of fluoride will only benefit the teeth that are present in the mouth during the application.

**Fluoride Toothpaste**

Children should brush at least twice a day with a small ‘pea-sized smear’ of fluoridated toothpaste that is approved by the Canadian Dental Association. Make sure that the ‘peas sized smear’ is emphasized as children often dispense double the desired amount. Children should spit out excess toothpaste. Rinsing should be kept to a minimum to maintain the anti-cavity benefit of the fluoride toothpaste.
**Fluoride Supplements**
This is recommended only for children at high risk for dental decay, where the estimation of fluoride exposure from all sources indicates a need. They are not recommended for use in fluoridated areas. Parents or guardians should receive necessary information from a health professional before giving fluoride supplements to a child.

**Dental Sealants**
Dental sealants are thin, protective plastic coatings applied to the chewing surfaces of the molars (back teeth). They act as a physical barrier, filling in the pits and grooves where food and bacteria can get trapped and cause cavities. Sealants are applied to the child's teeth by a dental health professional. Once applied dental sealants can last for years. Sealants should be checked during regular visits to the dental office. Dental sealants are tooth protectors but they do not ensure that cavities will not occur. Even when sealants are placed, children must still practice good dental health habits.

**Visit to the Dentist**
Taking care of your teeth is a partnership with the dental health team. Dental professionals including the Dentist, Registered Dental Hygienist, and Certified Dental Assistant will help care for your teeth. The dental visit should always be presented in a very positive way. Children should see the dentist at least once a year for a check up. Some of the things the dental health team may do to help keep children’s teeth healthy are:

- Assess their mouths to make sure teeth and gums are healthy.
- Give instruction of proper methods for care of teeth and gums.
- Scale to remove deposits visible on the teeth and under the gumline.
- Take radiographs, which are x-rays that let the dentist check for cavities and for changes in bone structure.
- Apply topical fluoride if necessary.
- Apply dental sealants if necessary.
- Apply restorations to decayed teeth to prevent decay from spreading deeper into the tooth and causing infection.
Tooth Safety

Encourage students to protect their teeth and mouths from injury:
- Wear safety gear for playing sports such as helmets and mouth guards.
- Be aware of others around you. Do not swing bats, kick balls, etc. when others are unaware or within reach. Play safely!
- Always wear your seatbelt. Buckle up!
- Don’t use your teeth as a tool, such as for opening beverage bottles or holding things like pencils or eyeglasses.
- Don’t push others at the water fountain or on playground equipment.
- Make sure your shoelaces or buckles are done up at all times. Don’t trip or fall!
- Know first aid if a tooth is knocked out.

What to do if a tooth is knocked out:

1. If the tooth is dirty, rinse it gently under running water. Do not scrub it.
2. Do not try to put a primary tooth back in the socket. If it’s a primary tooth, or if you are not sure, simply place it in milk, or cool water.
3. If it is a permanent tooth, try to gently insert it back in its socket. If this isn’t possible, simply place the tooth in milk, or cool water.
4. Take the child and the tooth to the dental office or hospital immediately!
5. References


### 6. Glossary

**Grades 1-3**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid</td>
<td>A substance which makes a corrosive etching effect on the tooth surface. When food with sugar is eaten, bacteria in plaque break down the food and change the sugar to acid.</td>
</tr>
<tr>
<td>Allergy</td>
<td>An unusual immune reaction to a normally harmless substance, such as some components of food.</td>
</tr>
<tr>
<td>Bacteria</td>
<td>Microscopic organisms of many different types and shapes, some of which are capable of producing disease.</td>
</tr>
<tr>
<td>Calorie</td>
<td>A unit to measure how much energy food can supply the body (known as kilojoules in the metric system). Calories are available from protein, carbohydrate and fat.</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>A nutrient that is the body's major source of energy. There are three main types of carbohydrates: sugar or simple carbohydrates, starch or complex carbohydrates, and fibre.</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>Disease affecting the heart and/or blood vessels.</td>
</tr>
<tr>
<td>Cavities/Tooth Decay</td>
<td>What happens when acid produced by bacteria decalcifies (weakens) the tooth.</td>
</tr>
<tr>
<td>Dental Assistant</td>
<td>A person who teaches people how to prevent dental disease, prepares patients, sterilizes equipment, maintains patient records, and helps the dentist examine teeth and take x-ray pictures.</td>
</tr>
<tr>
<td>Dental Hygienist</td>
<td>A person who teaches people how to prevent dental disease, cleans teeth, applies fluoride, and takes x-ray pictures.</td>
</tr>
<tr>
<td>Dentist</td>
<td>A person who teaches people how to prevent dental disease, examines teeth, and treats decayed teeth and other oral diseases/problems.</td>
</tr>
<tr>
<td>Diet</td>
<td>One’s usual daily food and drink intake.</td>
</tr>
<tr>
<td>Dietitian</td>
<td>A trained expert on the role of food and nutrition in health. Only those individuals who are registered with the College of Dietitians of Ontario can use the titles dietitian or Registered Dietitian.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Enriched</td>
<td>The addition of vitamins and minerals (that may have been lost during processing) to a food product.</td>
</tr>
<tr>
<td>Everyday foods</td>
<td>Foods from the four food groups, such as vegetables, fruit, milk, cheese, yogurt, whole grains, fish and legumes. These foods are considered to be nutrient dense.</td>
</tr>
<tr>
<td>Folate</td>
<td>A B vitamin that is necessary for producing and maintaining new cells. This nutrient is especially important during pregnancy. It is also known as folic acid.</td>
</tr>
<tr>
<td>Food Guide Serving</td>
<td>The amount of food in a serving as indicated by Canada’s Food Guide. The recommended number of servings varies by age group and gender.</td>
</tr>
<tr>
<td>Fortified</td>
<td>The addition of specific nutrients (that may be lacking naturally in a food) into a food product.</td>
</tr>
<tr>
<td>Hunger cues</td>
<td>The body’s way of telling a person they need to eat. Hunger cues regulate appetite and ensure that people eat enough to meet their energy and nutritional needs. Feelings of hunger may include a growling stomach, irritability, low energy, difficulty concentrating, etc.</td>
</tr>
<tr>
<td>Methylmercury</td>
<td>A highly toxic organic compound of mercury that accumulates in fish and shellfish.</td>
</tr>
<tr>
<td>Nutrient</td>
<td>A chemical substance in food that is used by the body for growth and health. Nutrients provide energy, serve as building material, and help maintain or repair body parts. Nutrients include carbohydrates, fats, proteins, vitamins, minerals and water.</td>
</tr>
<tr>
<td>Nutrient Density</td>
<td>A measure of nutrients provided per calorie of food. The addition of a lot of fat or sugar decreases the nutrient density of the food by decreasing the amount of nutrients compared to the number of calories in the food.</td>
</tr>
<tr>
<td>Nutrition</td>
<td>The study of the nutrients in foods and in the body and the study of human behaviours related to food.</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>Nutritionists are not regulated by law and people do not require any training to call themselves ‘a nutritionist’. Public Health Nutritionists, however, are an exception - they are required to have a Masters Degree and are registered with the College of Dietitians of Ontario.</td>
</tr>
</tbody>
</table>
Partially hydrogenated: The result of stopping part way through the process of hydrogenating oil so that the product is a semi-solid. This semi-solid consistency is often used by food manufacturers in baked products to increase shelf life. Some of the fatty acids in this process are converted to trans fat.

Permanent Teeth: Teeth meant to last a lifetime. The first permanent tooth appears in the mouth at six years of age. They replace primary teeth that are lost naturally.

Phytochemicals: Plant chemicals that contain protective, disease-preventing compounds. Phytochemicals are associated with reducing the risk of some chronic diseases including cancer, heart disease and stroke.

Pits and Grooves: Natural crevices and grooves on the surfaces of the teeth.

Plaque: A soft sticky, colourless layer of harmful bacteria and its by-products that are always forming on teeth.

Primary Teeth: The first set of teeth developed by a child, which usually erupt between six and 33 months old.

Protein: A nutrient that is essential for many body functions. Proteins are made up of amino acids. The body uses these to develop bone, muscle, skin, and blood.

Salt: A mineral primarily composed of sodium chloride. Salt is involved in transmitting nerve impulses and in regulating the water content of the body. High salt intake can increase the risk of health problems such as high blood pressure.

Satiety cues: The body’s way of telling a person they’ve had enough to eat. Feelings of satisfaction arise not just from the amount of food we eat, but also the taste and pleasure of eating appealing food. Feelings of satisfaction include feeling ‘full’ and no longer interested in eating.

Saturated fat: A type of fat that is mostly found in foods from animals and tropical plants (i.e., coconut oil, palm oil, cocoa butter). Large amounts of these fats tend to raise the level of LDL or bad cholesterol in blood increasing the risk of cardiovascular disease.

Sealant: A plastic coating that is painted on the chewing surfaces of the back teeth to protect them against cavities.
Sometimes Foods

Foods that are low in nutrients and are often high in calories, fat, sugar and/or salt. These foods are not part of the four food groups and should be limited, but can be enjoyed at times.

Trans fat

This fat comes from a vegetable oil that was chemically modified to be more solid. Trans fat found in partially hydrogenated margarines, deep-fried foods, packaged cookies, crackers, and commercially baked products. Trans fat raises the bad LDL cholesterol, but unlike saturated fat, it also lowers the good HDL cholesterol level increasing the risk of cardiovascular disease.

Unsaturated fat

A category of fats that includes polyunsaturated and monounsaturated fats, which are mainly found in fish, nuts, seeds and plant oils. These fats may help lower bad LDL blood cholesterol levels.

Vitamin A

A vitamin that plays an essential role in vision, particularly night vision; normal bone and tooth development; reproduction; and the health of skin and mucous membranes (the mucus-secreting layer that lines body regions such as the respiratory tract). Vitamin A also acts in the body as an antioxidant, a protective agent that may reduce the risk of certain cancers.
### Healthy Living Grade 1 Activities

#### Healthy Eating Overall Expectation

**Identify healthy eating habits.**

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<th>Activities</th>
<th>Learning Concepts</th>
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<td>1. Mystery Box</td>
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<td>2. One of These Doesn’t Belong</td>
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<td>3. Who Am I?</td>
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<td>7. Brown Bag Lunch or Snack (Home Activity)</td>
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<td>11. Food Group Twister</td>
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<td>12. Concentration</td>
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<td></td>
<td>13. Talking Vegetables (Enrichment Activity)</td>
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<td>Suggest occasions (e.g., a bake sale, a class party) when they can choose healthy food</td>
<td>14. Celebration of Foods</td>
<td>Healthy food snacks:</td>
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<tr>
<td>snacks, and describe the factors affecting their choices (e.g., choices made because</td>
<td>15. Breakfast Pot-Luck</td>
<td>• Importance of snacks</td>
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<tr>
<td>of allergies or culture).</td>
<td>16. Recess Snacks</td>
<td>• Choose foods from <em>at least</em> 2 different food groups</td>
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<td>17. Snacks of the World</td>
<td>• Importance of snacks from Vegetables and Fruit, Milk and Alternatives food</td>
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<td>18. Collage of Healthy Snacks (Performance Assessment)</td>
<td>groups</td>
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<td></td>
<td>19. A “Class-y” Snack</td>
<td>• Appreciation of and choices from different cultures</td>
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<td>20. Snack Talk</td>
<td>• Factors affecting food choices</td>
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</table>
# Healthy Eating Overall Expectation

## Identify healthy eating habits.

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<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
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<td>21. Teeth are Important</td>
<td>• Identify the need for teeth</td>
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<td>22. Toothbrushing (Performance Assessment)</td>
<td>• Being aware of their first permanent molar</td>
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<td></td>
<td>23. Healthy Snacks for Healthy Teeth</td>
<td>• Understand the need to brush properly, when and how long to brush</td>
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<td></td>
<td>24. Let’s Visit the Dentist</td>
<td>• Identify what a toothbrush should look like</td>
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<td>25. Fluoride Facts</td>
<td>• Identify the rules of toothbrushing</td>
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<td></td>
<td>26. Tooth Safety</td>
<td>• Encourage students to eat healthy snacks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Show how a variety of foods affect teeth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Familiarize students with the visit to the dentist</td>
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<tr>
<td></td>
<td></td>
<td>• Introduce the function of sealants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The benefits of fluoride</td>
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<tr>
<td></td>
<td></td>
<td>• Identify the sources of fluoride</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Understand the use of toothpaste</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Discuss how dangers to teeth can be avoided</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Understand and avoid habits which would harm their teeth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increase awareness of how to protect their teeth</td>
</tr>
</tbody>
</table>
Specific Expectation

Identify the food groups and give examples of foods in each group.

1. Mystery Box

Prepare a mystery box. You can use a small box or a 2 Litre milk carton and cover with a paper or cloth bag. Cut a hole in the bag large enough to allow a child's hand through, without allowing them to see the contents. Place a single vegetable, fruit or other food item in the box. A blindfold will help to prevent the student from accidentally seeing the food. Ask the students to identify the food by smell and touch. It is a good idea to exclude nuts from this exercise; this will avoid a possible allergic reaction.

After the food is identified, divide a clean piece of that food for each student. Talk about the food. Using Canada’s Food Guide, explain the food group to which it belongs, and why foods in that group belong together (see Background Information). Children can then draw a picture or print the word of another food in that food group.

2. One of These Doesn’t Belong

Create pictures of foods, or purchase food picture cards from the Dairy Farmers of Canada (Ontario) at 1-866-392-9929. Discuss the four food groups from Canada’s Food Guide and the foods that belong in each. These are the ‘everyday’ foods that should be eaten each day for good health and vitality. It is also important to note the less healthy choices or ‘sometimes’ foods that are high in calories, fat, sugar or salt; however, it is not necessary to discuss mixed dishes at this grade level (see Background Information).

Line up four pictures of foods, three of which are from the same food group. Ask students to pick the food that is not from the same group as the other three foods, and then name the food group to which the other three foods belong. The students could also make up similar sets of pictures for their classmates to solve.

3. Who Am I?

Use the Connect the Dots activity sheets. Discuss the foods and food groups. There is one activity sheet for each of the four food groups.

4. Show And Tell Foods

Cut out two large cards (approximately 20 cm x 30 cm). On the first card, write in large letters, "What Am I?" Tape a picture of a food on the second card. Include foods that represent the cultural make up of the classroom. Using two pieces of string, about 30 cm long, join the cards at the top corners. Place the cards on a student, front and back, with the question on the front and the strings over the shoulders. Alternately: Attach a picture of a food to each student’s back with a safety pin. The student wearing the cards must discover what food is on their back by asking the class questions about the food, such as, “Am I a food from a plant?” “An animal?” The class can only answer, “Yes” or “No”. Once the student guesses the food correctly, they must classify it, unless this was already done during the questioning.
Variation: Reverse roles by having one student know the food. The rest of the class asks questions to that one student who can only answer, “Yes” or “No”.

Variation: Pin a picture on the back of each student and let them mingle and ask each other questions to try to discover what foods are on their backs.

5. Food Station Game

Prepare one card per student, each depicting a different food from Canada's Food Guide.

Set up five train stations in the classroom labeled Grain Products, Vegetables and Fruit, Milk and Alternatives, Meat and Alternatives and ‘sometimes’ foods (i.e. cookies, chips, ice cream). Have the class form a long train by lining up behind one another. Distribute one food card to each student in the line.

Have students ‘chug’ around the room past all five stations. As they pass the Grain Products station, have all the students holding a card with a food from the Grain Products food group deboard the train. Repeat as students pass the rest of the food groups and the ‘sometimes’ foods stations. Once the train has stopped at each station, ask the students to display their cards. Have the class decide if each of the students has arrived at the correct station.

6. Tasting Stations

Set up a food tasting lab with food from each of the four food groups. Have several stations with different plates of food samples cut up into enough pieces for each student in the class. Choices should take into consideration cultural practices and possible allergies. The foods should come from each of the four food groups and be in different forms (e.g., cut, chopped, hot, cold). Have all of the students taste the sample at the first station and discuss the food group to which that food belongs. The students’ observations about that food can be recorded on a class-sized version of the attached Tasting Station chart. Another suggestion is to have students complete their own Tasting Station chart. The procedure is then repeated for each food station.

7. Brown Bag Lunch or Snack (Home Activity)

Have the students ask their parents to help them prepare their school lunch or snack. Snacks should include foods from at least 2 food groups and lunches should include foods from at least 3 food groups. Ask students to describe their snack or lunch and to explain to the rest of the class how easy it is to eat a variety of foods from different food groups. Talk about the ‘sometimes’ foods.

8. Family Dinner (Home Activity)

Ask students to look at what their family eats for dinner one evening. Ask them to illustrate, or write down, the food that is served for dinner. They can count how many food groups are represented. Hold a class discussion about the importance of eating a variety of foods.

9. Colouring Maze

Ask students to use the Colouring Maze activity sheet to identify pictures of foods that belong
to the Vegetables and Fruit food group. Ask them to colour the foods that belong to that group. When the correct pictures have been coloured, a path will form from the picture of the children to the picture of the basket of vegetables and fruit.

10. Breakfast Wall Hanging

Have students make a wall hanging of healthy foods for a breakfast they would like to eat. Provide magazines or grocery store flyers and ask students to cut out and stick three or four food pictures onto a strip of paper. Curl around the top and bottom ends of the strips of tape to stick the strip to the wall with the food pictures showing. Students can explain to their classmates what their breakfast includes and why.

Explain that a breakfast should include foods from at least three of the four food groups: one serving from the Vegetables and Fruit food group, one serving from the Grain Products food group and one serving from either the Milk and Alternatives or the Meat and Alternatives food groups (see Background Information).

11. Food Group Twister

Discuss the four food group names and the foods that belong in each. It is important to also discuss the foods that Canada’s Food Guide recommends to limit because they are high in calories, fat, sugar or salt. These foods are considered ‘sometimes’ foods. It is not necessary to discuss mixed dishes at this grade level. Use masking tape to outline a rainbow similar to Canada’s Food Guide on the floor. Provide coloured cards according to Canada's Food Guide: green for Vegetables and Fruit, yellow for Grain Products, blue for Milk and Alternatives, and red for Meat and Alternatives. Students pick a coloured card, and place a hand or foot in the arc that corresponds to their colour.

12. Concentration

Prepare a game of concentration by attaching pictures of foods from the four food groups to flash cards. Begin with eight pairs of identical cards, and work up to 20 or more pairs. Lay the cards flat, face down on a table. Have two teams of students work together to find matched sets.

13. Talking Vegetables and Fruit (Enrichment Activity)

Have the students tell a story from the point of view of a piece of fresh vegetable or fruit. Have them explain why they are so attractive and delicious. Begin the story with, “I am Manny Mango” or “Zachary Zucchini”. Ask the students to cut out a shape of the vegetable or fruit they described from a large piece of appropriately coloured construction paper. The students then write a sentence describing the story on the construction paper depicting a vegetable or fruit.

Specific Expectation

Suggest occasions (e.g., a bake sale, a class party) when they can choose healthy food snacks, and describe the factors affecting their choices (e.g., choices made because of allergies or culture).
14. **Celebration of Foods**

Have students pick an occasion that includes eating special foods. Discuss why certain foods are eaten on special occasions (birthdays, cultural or religious holidays, etc.). If the teacher wishes, this activity could be done at home with family members and reports made back to the class.

15. **Breakfast Pot-Luck**

Arrange a breakfast pot-luck to encourage students to taste a variety of breakfast foods. Send home letters requesting samples of typical foods eaten for breakfast by the students’ families. Students can prepare simple recipes. Ask students to describe why they chose the dish they did. If a breakfast program exists at the school, work with the coordinator and students to tie this activity together with the program. Be aware that some students may have allergies to certain foods. Be sure to discuss this with their parent/guardian. Discuss with students that allergies can also affect someone’s food choices.

16. **Recess Snacks**

Have students plan snacks for morning recess for one week. Suggest that students choose foods from *at least* 2 food groups for each snack. Vegetables and Fruit and Milk and Alternatives should be selected more often (see Background Information). Write the snack menu on the board. The students can learn to print the words.

17. **Snacks of the World**

Select a country and have students prepare and taste foods from that country. If possible, invite a parent/guardian who can introduce the foods to the students. More than one culture can be featured. Another idea is to focus on a food group, for example Grain Products, and taste-test examples from different cultures. For example, from the Grain Products group, provide tortillas, rice, pita and roti. Discuss what snack foods their families eat. Be aware that some cultural groups do not eat snacks between meals.

18. **Collage of Healthy Snacks (Performance Assessment)**

Provide each student with an 8½” x 14” piece of paper and magazines or grocery store flyers. Ask students to cut out and glue pictures into a collage of healthy snack foods. Each collage must include at least one food from each of the four food groups. Have students identify the name of a food and the food group to which it belongs. Students should also suggest an occasion (e.g., recess, after school, class party) when they would eat this food.

19. **A “Class-Y” Snack**

Students can learn math skills while preparing a simple snack for the class. They can help prepare the snack after washing their hands.

**Fruit Kabobs**

1. Cut a variety of fruit into bite-sized pieces. Try cantaloupe, banana, mango, kiwi, watermelon, grapes or oranges. Select ripe fruit for easy threading.
2. Each student threads fruit onto one stir stick.
**Banana Shake**

1 ripe banana, mashed  
250 mL 1% milk  
125 mL yogurt  
15 mL sugar  
1 ice cube

1. Put all ingredients into a blender. Students can help by peeling a banana and putting it in the blender or by pushing the blender button after the lid is safely closed.  
2. Blend at high speed until foamy.

Yields 8 - 60 mL servings.

**Dip with Pita**

125 mL yogurt  
125 mL low-fat sour cream  
30 mL dried soup mix, e.g., vegetable  
10 pitas

1. Mix yogurt, sour cream and soup mix.  
2. Refrigerate for at least one hour.  
3. Cut each pita into 6 triangles.  
4. Serve each pita triangle with a 5 mL of dip.

Yields 20 – 30 triangle servings.

**20. Snack Talk**

Feature a discussion of snacks for show and tell. Students can write simple sentences about snacks, such as, “I like carrots” beside a picture of carrots or, “I like samosas” beside a picture of a samosa. They can then talk about their sentences. Students could use their sentences to make a snack book full of their favourite snacks.

**21. Teeth Are Important**

Ask each student to explore their own mouth by using their tongue to locate the 6-year molar (a new tooth growing in the back) (see Background Information). Have students pretend they have no teeth by placing lips over teeth. Could they eat an apple? Could they talk very well? Do they look very nice? Show pictures of people smiling and people with missing teeth.

**22. Toothbrushing (Performance Assessment)**

Demonstrate how students at this age should brush their teeth. Using your pointer finger, pretend to brush teeth in class reaching all surfaces, to any song that is at least two minutes long.

Using the Brushing Log and Sparkling Smile Award activity sheets prepare daily brushing charts for use at home to record when the teeth were brushed. Brushing should be encouraged both morning and at bedtime. Have students return their brushing log to receive a certificate.
Explain briefly to students what a cavity is and why it happens (see Background Information).

Create a list of toothbrushing rules for students to learn (see Background Information).

23. Healthy Snacks for Healthy Teeth

Cut out the happy tooth and the sad tooth on the activity sheet provided. Glue each to a paper bag. Have students collect pictures of a variety of snack foods from the four food groups in Canada’s Food Guide. Have them cut out pictures of ‘sometimes’ foods (i.e., foods that are high calories, fat, sugar or salt). Have students place the foods in the appropriate bags. Discuss their choices.

24. Let’s Visit The Dentist!

Explain to the students that they should visit the dentist at least once a year. Encourage that the visit to the dentist can be a pleasant one. Point out physical aspects of the office to help build a positive experience (e.g., the chair, light and the waiting room). Obtain a book from your school library about visiting a dentist’s office and read it to the students or plan a visit to a local dentist office. Explain that sealant is a plastic coating that is painted on the chewing surfaces of the back teeth to protect them against cavities.

25. Fluoride Facts

Discuss with students the three most common sources of fluoride (see Background information). The benefit of fluoride on teeth can easily be explained as ‘putting muscles’ on teeth.

Demonstrate a pea-sized amount of toothpaste by having students hold up their baby finger. Pinch their finger just under the nail. That is all the toothpaste the student should use when brushing their teeth.

Follow up with the activity sheets Be Sure to Brush Every Tooth and Don’t Forget to Brush Your Tongue and Use Only a Pea-sized Drop of Toothpaste.

26. Tooth Safety

Develop a class list of do’s and don’ts for school and home. Look for pictures of chipped or broken teeth and discuss how it changes the appearance of a person. What sports should a person be wearing a protective mouth guard? What does a mouth guard look like?
I am square and brown or white.
Full of energy, I give you might.

Bought in loaves and eaten by the slice,
Toasted or plain, I taste very nice.

Who am I?

Connect the dots and use your crayons or colouring pencils to find out the answer.

Name: ___________________________
I am a vegetable which grows underground.
Some say I look like a candle upside down.

I am orange and crunchy,
and very, very munchy!

Who am I?  _________________

Connect the dots and use your crayons or colouring pencils to find out the answer.
I am a nut from under the ground.
I have a shell that is rough and brown.

Open me up and there is a treat.
Crunchy and tiny and fun to eat.

Who am I? __________________________

Connect the dots and use your crayons or colouring pencils to find out the answer.
Name: ____________________________

I am a drink did you know?
I can help your bones to grow.

Chocolate, white or any kind
try any one, I don’t mind.

Who am I? __________

Connect the dots and use your crayons or colouring pencils to find out the answer.
<table>
<thead>
<tr>
<th>Name of Food</th>
<th>Food Group</th>
<th>How it feels when I touch it?</th>
<th>Did I Like This Food?</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>(crunchy, hot, wet, smooth, cold, dry)</td>
<td>🎁 😐 😞</td>
</tr>
</tbody>
</table>

**Tasting Station**

Name: ____________________

**Activities, Grade 1**

*Discover Healthy Eating! A Teacher’s Resource for Grades 1 - 6, 2009*
Colouring Maze

Find your way to the basket of fruit. Colour the vegetables and fruit to make a path. Go back and see how many vegetables and fruit you can name.
Name: ________________________________

**Brushing Log**

(Your Name)’s Brushing Log

For the next month (beginning on Sunday of Week 1), color in the proper square on the calendar each day you brush, morning and night.

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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<tr>
<td>Week 1</td>
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<td>Week 3</td>
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</tbody>
</table>

Parents: It’s a good idea to supervise your child’s brushing every day, providing help when needed. At the end of four weeks, sign the chart and return it to school with your child.

**My child has done a good job of brushing every day for a month!**

Reprinted with permission from Procter and Gamble.
Be sure to brush every tooth and don’t forget to brush your tongue.
## 8. Healthy Living Grade 2 Activities

### Healthy Eating Overall Expectation

Identify healthy eating practices and use a decision-making model to make healthy food choices.

<table>
<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| Identify a balanced diet and apply decision-making skills to create menus for healthy meals; | 1. Canada’s Food Guide in Review  
2. Bean Bag Toss  
3. Food Variety (Performance Assessment)  
4. Combination Foods  
5. Food Group Shuffle  
6. Breakfast Discussion  
7. Eating Breakfast Picture Journal  
8. Make-A-Menu  
9. Snazzy Snacks (Food Preparation)  
10. Breakfast Planning (Home Activity)  
11. What I Ate for Supper (Home Activity)  
12. Special Food Day  
13. Pack-a-Lunch  
14. Supermarket Trip  
15. A Taste of Breakfast (Food Preparation)  
16. Breakfast Role Play  
17. Designer Cereal Box  
18. Music Activity (Performance Assessment)  
• Definition of ‘everyday’ versus ‘sometimes’ food.  
• Importance of eating a balanced diet.  
• Importance of eating a variety of foods.  
• Identification of mixed dishes.  
• Examples of balanced diets.  
• Healthy breakfast foods.  
• Types of breakfast foods.  
• Foods from Canada’s Food Guide that can be used to create breakfast.  
• Healthy breakfasts include foods from at least three of the four food groups.  
• Plan a healthy breakfast, lunch or supper including a variety of foods.  
• Food is important to the body to give energy to learn, work and play; help it grow; keep it working  
• How the body feels when meals are skipped. |
| Describe the importance of food to the body (e.g., for energy and growth); | | |
Healthy Eating Overall Expectation

Identify healthy eating practices and use a decision-making model to make healthy food choices.

<table>
<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| Explain the negative effects of poor nutrition on healthy teeth and the importance of regular brushing and visits to the dentist. | 20. Teeth are Important  
21. We Get Two Sets of Teeth  
22. Let’s Brush!  
23. Where Plaque Hides  
24. Tooth Decay  
25. Tooth Smart Snacks (Performance Assessment)  
26. Let’s Visit the Dentist | • Understand the importance of teeth  
• The difference between primary and permanent teeth  
• Understand the need to brush properly, when and how long to brush  
• Identify toothbrushing tips  
• Identify plaque in the mouth  
• Understand the development of tooth decay with the emphasis on the role of plaque  
• Identify healthy snacks  
• Learn about the role of the dental office staff |
Specific Expectation

Identify a balanced diet and apply decision-making skills to create menus for healthy meals.

1. Canada’s Food Guide In Review

Display pictures, labels or wrappers from foods eaten by students including breakfast cereals, cookies, chips, crackers, milk, ice cream, yogurt, fruit, juices, pop, etc. Have students classify the foods according to Canada’s Food Guide. Have students use the Personal Food Guide activity sheet to illustrate how their foods are distributed according to the food groups.

Discuss the ‘everyday foods’ versus ‘sometimes foods’ concept (see Background Information).

2. Bean Bag Toss

Have the students stand in a circle. Start the game by giving one student a beanbag to toss. That student tosses the beanbag to another student in the circle and at the same time calls out the name of a food. The student who catches the beanbag must identify the food group to which that food belongs. The game continues with the second student tossing the bag to someone else and calling out a food name. This game can also be played in reverse; the student tossing the beanbag calls out the name of a food group and the student catching the beanbag names a food from that food group.

3. Food Variety (Performance Assessment)

Based on students’ findings in the above activity, have them discuss the variety of their food choices according to Canada’s Food Guide. How can students improve the variety in their daily intakes? Sensitivity is needed where student’s food variety may be limited by home situations.

Discuss variety in food choices from the Vegetables and Fruit, Grain Products, Milk and Alternatives and Meat and Alternative groups. Share more ideas for increasing variety in meals and snacks with classmates.

In pairs, have each student make a model of each of the foods they ate for lunch using clay, plasticine, or Play Dough®. Then have the students help each other reshape their choices to add more variety to their lunches, if necessary.
4. Mixed Dishes

Discuss mixed dishes (see Background Information) with students showing pictures of these foods from magazines or pictures available from the Dairy Farmers of Canada (Ontario) 1-866-392-9929 www.teachnurtition.org. For each mixed dish (combination food), identify foods from the four food groups and those that do not fit.

For example, peanut butter and banana sandwich:
- peanut butter: Meat and Alternatives
- banana: Vegetables and Fruit
- bread: Grain Products
- margarine (if added): Added Oils and Fats

5. Food Group Shuffle

Designate six areas around the classroom - label each area. Write the food group names from Canada’s Food Guide (Vegetables and Fruit, Grain Products, Milk and Alternatives and Meat and Alternatives), foods outside of the food groups and mixed dishes. Give each student a food picture (pictures are available from the Dairy Farmers of Canada (Ontario) 1-866-392-9929 www.teachnutrition.org). Play music while the students walk, march or shuffle around the room holding their picture. Shut off the music abruptly, at which time students must go to the area labelled with the appropriate food group/category as fast as they can. After all students are standing in their food group/category areas, ask each student to describe why they chose that area. If the student is wrong, they are not out. For the next round, re-distribute the cards to students and play again.

6. Breakfast Discussion

Ask the students to talk about who likes eating breakfast in the morning. Why?

Discuss why it is important that you eat breakfast to break the overnight fast (see Glossary and Background Information). Explain that a complete breakfast includes foods from at least three of the four food groups: Vegetables and Fruit, Grain Products and one from either the Milk and Alternatives or Meat and Alternatives food groups. Sensitivity is needed where student’s food choices may be limited by home situations.

Discuss examples of breakfasts that contain foods from at least three of the four food groups. Ask the students to describe the most unusual breakfast they have ever eaten.

7. Eating Breakfast Picture Journal

Distribute the activity sheet What I Ate for Breakfast. Have students keep a picture or written journal of breakfasts they have eaten for one week. Each morning ask the students to draw, paste a picture or write what they ate for breakfast in the appropriate box. Then ask them to indicate what foods they would need to eat to make their breakfast more complete. Sensitivity is needed where student’s food choices may be limited by home situations.
The basic guideline for planning breakfast is to choose foods from at least three of the four food groups. It is recommended to choose at least one serving from each of the Vegetables and Fruit and Grain Products groups as well as at least one serving from the Milk and Alternatives or Meat and Alternatives groups (see Background Information).

Using pictures of a variety of different foods that can be eaten for breakfast, students discover that a breakfast food can be almost anything that will give them energy and nutrients.

### 8. Make-A-Menu

Simulate a restaurant in the classroom by arranging several desks with chairs around them. Make up a menu (or brainstorm one with the class) listing a variety of foods from Canada’s Food Guide, including foods commonly used by various ethno-cultural groups and list prices next to each menu item. Invite some students to be customers and some to be wait staff.

Have the restaurant customers order meals while the wait staff writes down the order and tabulate the bills. Give students a monetary limit for their meal. Have the wait staff serve the orders using pictures of foods from the Dairy Farmers of Canada (Ontario) 1-866-392-9929 or food models and have the customers pay with play money.

Afterwards have the students discuss the composition of the meals. What food groups were represented? Was there at least one serving from each of the Vegetables and Fruit, Grain Products groups as well as at least one from the Milk and Alternatives or Meat and Alternatives group? Have students rotate roles and play again.

### 9. Snazzy Snacks (Food Preparation Activity)

Snacks are a great way for students to get an adequate intake of the four food groups (see Background Information).

Using flip chart paper or the blackboard, ask students to brainstorm a list of snack foods that they usually eat. The students then classify the foods according to Canada’s Food Guide food groups and foods that do not fit.

Divide students into groups and if possible, invite parent volunteers to work with each group. Have each group prepare one of the healthy snack recipes listed below or choose their own recipes. Introduce students to their recipes by having them substitute the names of the ingredients with pictures. Follow-up with a party in which students taste each of the snacks.

Create recipe books in the shape of a chef's hat (cut out paper in a chef's hat shape and write recipes on pages and staple together) to give to parents as gifts.
Fruit Smoothie
250 mL (1 cup)  canned or fresh fruit
1  large banana, sliced
125 mL (1/2 cup)  low fat yogurt (flavoured or unflavoured)
125 mL (1/2 cup)  low fat milk
    ice cubes

1. Put all ingredients into a blender.
2. Blend at high speed.
3. Add ice cubes.
4. Serve cold.
5. Yields 8 servings.

Snack Mix
500 mL  bite-sized Shreddies®
500 mL  Corn Bran®
500 mL  toasted oat cereal
500 mL  thin pretzels
250 mL  sunflower seeds

Yields 3000 mL (12 cups).

Cheesy Vegetable Dip
500 mL (2 cups)  cottage cheese
250 mL (1 cup)  yogurt
1 Tbsp.  chopped fresh dill (or 1 tsp. dried dillweed)
½ tsp.  salt
    pepper to taste

1. Mix ingredients together in a bowl.
2. Refrigerate for at least one hour.
3. Cut up a variety of vegetables (e.g., red pepper strips, cucumber slices, broccoli florets, carrot sticks, and snow peas).
4. Have students dip the vegetables in the dip.
5. Yields 750 mL (3 cups) of dip.

10. Breakfast Planning (Home Activity)

Send a letter home asking students and their parents/guardians to plan and prepare a breakfast for their entire family. The meal should be based on at least three of the four food groups – at least one food from the Vegetables and Fruit and one from the Grain Products, and one from either Milk and Alternatives or Meat and Alternatives.
11. **What I Ate For Supper** (Home Activity)

Using the *What I Ate for Supper* activity sheet have students and their families analyse their suppers based on Canada’s Food Guide. Ask them to list all the foods they ate, indicating which foods belong in which groups. Based on their findings, have them use the *Supper Menu Plan* activity sheet to plan a menu that includes all four groups in Canada’s Food Guide. Remember that some family meals may include mixed dishes. These foods should be divided out according to which food groups they represent.

**Note:** Sensitivity to home situations may be required.

12. **Special Food Day**

Evaluate Special Food Day (e.g., Hot Dog Day or Pizza Day) menus according to Canada’s Food Guide. At least three food groups need to be included: Vegetables and Fruit, Grain Products and one from either Milk and Alternatives or Meat and Alternatives. If these food groups are not included in the menu, have the students compose a letter to the principal and other appropriate people suggesting options. If there are no changes needed and enough food groups are represented, have students congratulate the principal and appropriate others regarding the menus. Have the class brainstorm the letter while you record it for them. Have students sign their names and deliver the letter.


Working in pairs, give each student a piece of construction paper cut out in the shape of a lunch box. Have each student pack a lunch for their partner by drawing or pasting magazine pictures of foods that would make up a healthy lunch. Encourage them to include foods that they like but their partner may not have tried.

14. **Supermarket Trip**

Set up a pretend supermarket with empty food containers of a variety of foods from the four food groups. Use the following props: foods labelled with price tags, a cash register, play money, a shopping cart and grocery bags. Students dramatise a trip to the supermarket to buy a variety of foods. Alternately, take a field trip to a real supermarket and talk about the four food groups.

15. **A Taste of Breakfast** (Food Preparation Activity)

Students practice their math skills by preparing a simple mini ‘taste of breakfast’ sample for the class. To confirm the message of what a complete breakfast should look like, use a picture (or the actual food) to show what the full portion size of the breakfast looks like.
Examples:

Sunshine Toast
5 slices  whole wheat bread
250 mL (1 cup)  low-fat cottage cheese
any kind of sliced fruit
  cinnamon

1. Toast whole wheat bread lightly in a toaster oven.
2. Spread on low-fat cottage cheese.
3. Top with sliced fruit.
4. Sprinkle with cinnamon.
5. Put bread back in the toaster oven until toppings are warm.
6. Cut into 4 quarters.
7. Yields 20 samples.

A volunteer may be available to help so that students could do most of the activity in small groups. For example, students could count how many slices of bread they will need for their group; measure and spread the cottage cheese; sprinkle the cinnamon; and cut the toast.

Yogurt Parfait
125 mL (1/2 cup)  vanilla yogurt
125 mL (1/2 cup)  canned fruit
125 mL (1/2 cup)  uncooked oatmeal or high fibre cereal
15 mL (1 Tbsp)  sunflower seeds

1. Layer the ingredients in a parfait dish or clear plastic cups.
2. Yields 10-15 (30 mL) samples.
Specific Expectation

Describe the importance of food to the body (e.g., for energy and growth).

16. Breakfast Role-Play

Before beginning the role-play exercise, use the following questions about breakfast to help the students think about breakfast, its importance, and what it means:

- What is breakfast?
- What are some foods you can eat for breakfast?
- How does your body feel when you do not eat breakfast?

Ask the children if they have ever missed breakfast and if so did they feel any different on the mornings when they did not eat breakfast? Discuss reasons why we might skip breakfast (sensitivity to children's home situation may be required). Facilitate discussion on ideas for those who skip breakfast (e.g., get up 15 minutes earlier; bring a healthy snack to eat in the schoolyard when arriving at school in the morning, join the breakfast program if there is one).

Ask volunteers to role-play several responses. You may wish to write suitable words on the chalk board that students can use when acting out their scenarios.

Add new scenarios, such as requesting a variety of foods that can be eaten for breakfast at a school breakfast program or requesting toast or cereal at a sleepover at the home of a friend who never eats breakfast.

17. Designer Cereal Box

Students design their own breakfast cereal box that illustrates how they feel after they eat breakfast. Explain that breakfast is important because it gives people energy to learn, work and play in the morning. Students show their 'designer' cereal boxes to their classmates and talk about their personal morning breakfast stories.

18. Music Activity (Performance Assessment)

Teach the students the following rap song or poem:

Foods from the Guide, foods of all kind
A variety of foods, for my body and mind.
Pasta, brown rice, apples and beans,
Popcorn and carrots and good crispy greens!

If I don’t eat, enough foods of all kind
I feel weak and tired, not good for my mind.
My body won’t grow healthy and strong,
Oh no, oh dear, I won’t last very long!
Divide students into groups of four and have each group create two more rhyming verses about the importance of food to the body. Ask the students to perform their verses to music for the rest of the class. Encourage them to use props or to make their own music to sing to.

19. Healthy Lunches Help You Grow

Have students role-play how they would ask their parent/guardian to buy or prepare a lunch which includes foods from all of the four food groups. Invite students to play the role of the parent/guardian and the role of the child. Structure the role-play to allow students to develop their own dialogue on importance of food to the body (e.g., for energy and growth). Have them write their dialogue out and then perform their role-plays in front of the class, practicing the words and phrases they can use at home.

Specific Expectation

Explain the negative effects of poor nutrition on healthy teeth and the importance of regular brushing and visits to the dentist.

20. Teeth Are Important

Supply students with carrot, celery or apple pieces. Ask them to pretend they do not have teeth, by curling their lips over their teeth. Have them bite the foods. Discuss the experience. How well could they bite and chew? Now have them bite the foods using their teeth. Discuss the importance of teeth for eating.

Again, ask students to pretend they do not have teeth by curling their lips over their teeth. Ask students to say the words ‘thirsty’, ‘thank you’ and ‘sister’. Discuss the experience. Could they say the words easily? Did they sound the same? Can they say the words better when using their teeth? Yes, because the tongue and lips need to press against the teeth as we speak. Discuss the importance of teeth when speaking.

Again, ask the students to curl their lips over their teeth. Ask the students to look at each other. How do they look without teeth? Do they have a nice smile? Discuss the importance of teeth to the shape of their face.

21. We Get Two Sets of Teeth

There are 20 primary and 32 permanent teeth. Discuss the role and the importance of primary and permanent teeth (see Background Information).
22. Let’s Brush!

Review brushing with students including teeth, gums and tongue (see Background Information). Reinforce the importance of good toothbrushing habits. Include frequency and duration. Write a letter to the tooth fairy/dentist explaining how you are looking after your teeth.

23. Where Plaque Hides

In a class discussion, talk about plaque (see Background Information). Since plaque is colourless, it can be coloured with a harmless food colouring. Have students experiment at home using a vegetable dye to discover where plaque hides in their mouth. Ask students how they feel about having plaque on their teeth. Using the Finger Puppets activity sheet, develop a skit or puppet show about the danger of plaque to teeth and gums.

24. Tooth Decay

Discuss how the bacteria in plaque make acid when sugar is in the mouth. Each time food containing sugar is eaten, the bacteria continue to produce acid (see Background Information). Have students colour the activity sheet Tooth Decay.

Soak an uncooked egg in vinegar for 6 hours. As the acid decalcifies the eggshell, the shell will become soft, just as the acid weakens the surface of the tooth.

25. Tooth Smart Snacks (Performance Assessment)

Have students create a mobile or collage using pictures of healthy snacks for teeth. Have students develop a recommended snack list to take home (see Background Information). Have students complete the activity sheet Choose Healthy Recess Snacks.

26. Let’s Visit The Dentist

Open a discussion about the roles of the people in a dentist’s office - the Dentist, Dental Hygienist, and Dental Assistant (see Glossary). Ask students who have been to the dentist to describe their experience. Discourage descriptions of pain and fear. Arrange a visit to a local dentist office.
Name: ____________________________

Personal Food Guide

Vegetables and Fruit

Grain Products

Milk and Alternatives

Meat and Alternatives
Name: _________________________________

**What I Ate for Breakfast**

1. With crayons, draw pictures or write what you ate for breakfast this week.
2. With a pencil, draw or write what else you would need to make each breakfast complete.

<table>
<thead>
<tr>
<th>Weekday</th>
<th>Food You Ate</th>
<th>What you need to add to make your breakfast complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
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<td>Tuesday</td>
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<tr>
<td>Friday</td>
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</table>
What I Ate for Supper

1. With crayons, draw pictures or write what you ate for supper.
2. Use a check mark to show what food groups/category the foods eaten belong to.

<table>
<thead>
<tr>
<th>Food I Ate</th>
<th>Vegetables and Fruit</th>
<th>Grain Products</th>
<th>Milk and Alternatives</th>
<th>Meat and Alternatives</th>
<th>“Sometimes” Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pizza</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>

Name: ______________________________

Discover Healthy Eating! A Teacher’s Resource for Grades 1 – 6, 2009

Activities, Grade 2
Name: ________________________________

**Supper Menu Plan**

1. With crayons, draw pictures or write what you could eat for supper (remember to include foods from the four food groups).
2. Use a check mark to show what food groups/category the foods eaten belong to.

<table>
<thead>
<tr>
<th>Supper Menu List</th>
<th>Vegetables and Fruit</th>
<th>Grain Products</th>
<th>Milk and Alternatives</th>
<th>Meat and Alternatives</th>
<th>“Sometimes” Foods</th>
</tr>
</thead>
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Discover Healthy Eating! A Teacher's Resource for Grades 1 – 6, 2009

Activities, Grade 2
Choose Healthy Snacks

Instructions: Draw a happy tooth beside the snacks which are good for you. Draw a toothbrush beside the snacks that can lead to tooth decay and must be brushed away.

apple  sunflower seeds  banana
milk  bubble gum  lollipop
candy bar  peanuts in the shell  unsweetened orange juice
cookies  carrot sticks  cheese & crackers
Tooth Decay
## 9. Healthy Living Grade 3 Activities

### Healthy Eating Overall Expectation

**Describe the relationship among healthy eating practices, healthy active living and healthy bodies.**

<table>
<thead>
<tr>
<th>Specific Expectation</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| Identify foods from different cultures and classify them by food groups. | 1. Food Groups in Review  
2. Vegetables and Fruit of the World  
3. Foods in Disguise  
4. Celebration Foods  
5. Favourite Meal  
6. Breakfast Around the World  
7. International Food Caravan  
8. Goals for Lunch  
9. Alphabet Book  
10. Where Do Foods Come From? (Enrichment Activity)  
11. Food Guides Around the World (Enrichment Activity) | • Review Canada's Food Guide  
• Examples of foods from different cultures  
• Classification of cultural foods into the four food groups |
| Describe the benefits of healthy food choices, physical activity, and healthy bodies. | 12. Food Group Placemats  
13. Breakfast Survey  
14. Healthy Living Makes Me Feel... (Performance Assessment)  
15. Greeting Card  
16. Let’s Get Physical  
17. Physical Activity Brainstorm | • Reduces the risk of diseases  
• Essential for proper growth and development  
• Provides essential nutrients and energy  
• Helps to maintain a healthy weight  
• Strengthens heart, lungs and muscles  
• Helps people look and feel good  
• Perform better in school  
• Perform better physically |
Healthy Eating Overall Expectation

Describe the relationship among healthy eating practices, healthy active living and healthy bodies.

<table>
<thead>
<tr>
<th>Specific Expectation</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe a variety of ways to prevent tooth decay (e.g., brushing, making appropriate food choices, rinsing the mouth).</td>
<td>18. Brushing Review</td>
<td>• Improve toothbrushing skills</td>
</tr>
<tr>
<td></td>
<td>19. Plaque Review</td>
<td>• Understand the plaque equation</td>
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<tr>
<td></td>
<td>20. Flossing Can Be Fun</td>
<td>• Evaluate own plaque by spot checks</td>
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<tr>
<td></td>
<td>21. Smart Snacking</td>
<td>• Understand the importance of flossing</td>
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<tr>
<td></td>
<td>22. Tooth Decay (Performance Assessment)</td>
<td>• Identify healthy snacks</td>
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<tr>
<td></td>
<td></td>
<td>• Understand the causes of tooth decay and how it could happen</td>
</tr>
</tbody>
</table>
Specific Expectation

Identify foods from different cultures and classify them by food groups.

1. Food Groups In Review

Review Canada's Food Guide with the class. Discuss the concept of variety as part of healthy eating, both within each food group and among the food groups (see Background Information). Remind students that combination foods are composed of foods from more than one food group. Ask the students to give examples of foods from each food group. Include in the discussion foods from different cultures.

2. Vegetables and Fruit of The World

Using a world map, identify geographic regions from which various fruits and vegetables may come. For example:

- Kiwi from New Zealand
- Granny smith apples from South Africa
- Mangos from Mexico, Asia and the Caribbean
- Plantain and eddoe from the Caribbean, Vietnam, and Africa
- Bok choy and bamboo shoots from China
- Lotus stem from South Asia
- Lychees from Vietnam and Africa

Note that many foods may have originated from one country, but are now grown in many countries around the world. Order the food picture cards from the Dairy Farmers of Canada (Ontario) 1-866-392-9929, for examples of many vegetables and fruits.

Have the children make a mobile or poster featuring a variety of vegetables and fruit from around the world.

3. Foods In Disguise

Bring in a variety of samples of a food which comes in many forms (e.g., apples can be raw, baked, dried, and can be made into apple sauce, apple cider, apple juice, apple butter, and can be a part of combination foods such as apple pie). Tomatoes, carrots, potatoes, and corn can also be used to illustrate the various forms that foods may take. Have the students taste the different forms of the food and record tastes, textures, appearances, and likes or dislikes. Discuss how the foods are used in different cultures and classify them by food group.
4. **Celebration Foods**

Have students bring in a short list of foods for a meal that is traditionally served in their home for a celebration (e.g., a feast, wedding, holiday celebration). Compare food lists. Ask students: What type of foods are traditional ‘celebration’ foods? Are there any common aspects? How do ‘celebration’ foods make you feel? Classify these foods into food groups.

5. **Favourite Meal**

Discuss how eating habits are unique and that people from different parts of the world can choose different, but equally healthy, meals. Emphasize that although the children may have different favourite meals, no particular way of eating is better than another.

Have students draw a picture of their favourite meals. Make a display of the drawings. Have children describe their meal.

6. **Breakfast Around the World**

Discuss foods eaten for breakfast from different countries. Have students investigate and compare traditional breakfast foods eaten by different ethnic groups in their community.

Students can also interview family members about what they used to eat for breakfast when they were young. Discuss why there are differences in food choices for breakfast (e.g., different foods are available in different parts of the world). Students could write and/or draw about what they discovered.

7. **International Food Caravan**

Introduce students to a variety of foods from all over the world by having an international food caravan using food and snack recipes that come from other countries. Incorporate music and decorations from that part of the world.

The students could assist in preparing the foods at school, if the facilities exist, or they could bring favourite food samples from their homes to share with the class.

Have students design a poster or story about foods that are new to them. Ask them to include where the foods come from, and the different ways the foods can be enjoyed, as a part of Canada's Food Guide. Alternately, ask students to design a poster or story about their experience eating a ‘Canadian’ food for the first time.

8. **Goals For Lunch**

Have students draw a picture of a lunch which includes at least three of the four food groups. The lunch should include at least one serving from each of the Grain Products and Vegetables and Fruit food groups, and one serving from either Milk and Alternatives or Meat and Alternatives or both of these groups. Ask them to write the names of the foods and the food groups to which these foods belong. Encourage creativity and variety in lunch choices by incorporating foods from different cultures.
Talk to the students about setting a goal to include in their lunch at least one food from each of the Grain Products and Vegetables and Fruit groups, and one food from either the Milk and Alternatives or Meat and Alternatives food groups or from both. Have the students ask their parents to help them with this goal.

9. **Alphabet Book**

Use this activity to introduce and discuss foods eaten in different cultures and the importance of choosing a lot of different kinds of foods – that is, variety (see Background Information). Explain that the first person says the letter ‘A’, then names a food that starts with ‘A’. The next student then continues with naming the letter ‘B’ and a food beginning with ‘B’, and so on. Ask students to tell the class where their food is from in the world. Give each child at least one turn. You may have to offer suggestions for some of the letters (e.g. ‘D’: dates, duck, dill pickles, ‘Q’: quiche, quince, ‘V’: vinegar, vanilla, veal, ‘W’: walnuts, watercress, wheat, won ton, ‘Y’: yogurt, yam, yellow pepper, ‘Z’: zucchini, ziti [a type of pasta], suggest skipping ‘U’ and ‘X’). Students can make an alphabet book as a class project or individually.

10. **Where Do Foods Come From?** (Enrichment Activity)

Using a map, have students locate the country, province or state that supplies them with different foods. If possible, make copies of a map of the world and have them draw a line on the map to join the country, province or state that supplied the foods to your city or town.

11. **Food Guides Around the World** (Enrichment Activity)

Using the Canada’s Food Guide activity sheet, ask students to use foods from a particular culture or period in history to fill in the food groups arcs. This will involve researching what foods are commonly eaten from each food group in that country or era. Suggest that they talk with people from that country or do some research in the library. Have students draw and label the foods on their food guide and then display their food guides on a class bulletin board or wall.

**Specific Expectation**

Describe the benefits of healthy food choices, physical activity, and healthy bodies.

12. **Food Group Placemats**

Have each student create a placemat using words and drawings. Students can weave construction paper to make the background for the artwork. The theme of the placemat could be: “How Healthy Food Choices and Physical Activity Help Build Strong and Healthy Bodies”. Distribute
Canada’s Food Guide to everyone in the class. Have students come up with a slogan for their artwork and report back to the class. Encourage students to include foods from each of the four food groups from Canada’s Food Guide and examples of their favourite physical activities. Laminate for home use or display the placements.

13. **Breakfast Survey**

Ask the students to conduct a breakfast survey of five friends and family members. Some questions to ask in the survey are as follows:
- How often in the last seven days did you eat breakfast?
- How do you feel the rest of the day when you eat breakfast?
- What foods did you eat for breakfast today?
- How did you feel the rest of the day when you did not eat breakfast?

Ask the students to create two graphs:
- One of how many times out of seven days each person ate breakfast; and
- One of the number of food groups each person ate for breakfast today.

Have a discussion with the class about the importance of breakfast and which food groups should be included in a complete breakfast (see Background Information). Discuss how people felt if they did or did not eat breakfast.

14. **Healthy Living Makes Me Feel... (Performance Assessment)**

Have the students write a story that describes how they feel when they eat well, following Canada's Food Guide and are physically active. Encourage students to think about how energetic they feel or how they are able to concentrate better at school when they eat well.

Ask the students to share their stories, reading them aloud to the class. Have a class discussion about the benefits of healthy eating and physical activity (see Background Information).

15. **Greeting Card**

Have the students design a greeting card, using a healthy eating theme. Students can write to their parent/guardian thanking them for helping them eat well and grow to this point. Students can also ask the parent/guardian to continue giving them meals and snacks that follow Canada's Food Guide. Students should describe why it is important for everyone in their family to have healthy eating habits.

16. **Let's Get Physical**

Prepare 50 index cards by writing out the name of a different food on one side of each card (e.g., tomato) and a physical activity movement with number of repetitions on the other side (e.g., two push ups). Create 10 cards for each food group and place all of the cards in a box in the centre of the room. Place signs with the name of each food group around the room.
• Divide the class into four lines, each standing below a Food Group sign.
• On “GO”, the first person from each line runs to the box and picks out a card.
• Those five students go to the front of food group line to which the food on the card belongs.
• They lead that line in the movements written on the card (e.g., 10 jumping jacks).
• If two students run to the same line (because they have both selected pictures from the same food group), they take turns leading the line through the movements on the card.
• Those four students then go to the end of their new line.
• Again on “GO”, the next student in each line runs to the box, gets a card, and goes to the food group represented on the card, leading them through the specified physical activity movement. When all the cards have been chosen from the box the game ends.

Discuss the importance of eating a variety of foods and being active. Explain to the class that these elements work together to make them feel healthy and energetic. This activity can be done in the gymnasium.

17. Physical Activity Brainstorm

Divide the class into two groups. In each group one person is the recorder and one is the presenter. Assign one group the task of brainstorming a list of their favourite physical activities. The recorder writes down this list. They can also include Active Living activities such as taking the stairs instead of the elevator (see Background Information). The presenter then shares the group’s list with the class. Have a discussion about the variety of possible physical activities and how fun they are.

Assign another group the task of brainstorming a list of the benefits of physical activity. Remind them to include a range of benefits (see Background Information). Have a class discussion of the variety of benefits of physical activity. Encourage the class to focus on thinking about physical activity as enjoyable and beneficial, rather than on physical activity as a chore and on the negative effects of not being physically active.

Specific Expectation

Describe a variety of ways to prevent tooth decay (e.g., brushing, making appropriate food choices, rinsing the mouth).

18. Brushing Review

Review brushing with class. Discuss why we have teeth and how to take care of them. Ask students how their mouth feels before and after brushing. Some ideas to encourage students to think about the care of their teeth are:
• Have students write a story about a person who has no teeth.
• Have students make up their own brushing chart.
• Have students survey what type of toothbrush family members use (i.e., brand, bristles).
19. **Plaque Review**

Discuss where plaque hides (see Background Information). Periodically, conduct a spot check of student’s oral health by asking who brushed their teeth this morning. This will help to reinforce the need for thorough removal of plaque every day.

20. **Flossing Can Be Fun**

To demonstrate the need to floss, cover your hand with thick tempera paint. Then use a toothbrush to clean off the paint holding fingers tightly together. The brush will not remove material from between the fingers. The comparison of plaque between the teeth can then be made.

Give each child a piece of yarn 18 inches long. Have children get a partner and illustrate flossing by using the yarn and the partner’s hand. One student holds the yarn and the other holds their fingers slightly apart. The student with the yarn flosses between the fingers, keeping floss against the side of each finger.

21. **Smart Snacking**

There are many healthy snack foods. Have students think of some of these foods. Have students complete the *Choose Healthy Recess Snacks* activity sheet. Have students develop a recommended snack list to take home.

22. **Tooth Decay** (Performance Assessment)

Discuss how the bacteria in plaque makes acid when sugar is in the mouth. Each time food containing sugar is eaten, the bacteria continue to produce acid (see Background Information). Demonstrate this by using the activity sheet *The Story of Tooth Decay*. Survey the class to find out how many students have had cavities.

Having discussed the main ways to prevent tooth decay, discuss the additional ways to prevent it (e.g., chewing sugar free gum for twenty minutes, eating protective foods, and rinsing the mouth with water during the day) (see Background Information).

Play a game using the *Be the First to Reach the Smile* activity sheet to reinforce good dental health behaviours.
Food Guide

place or time in history

Name: __________________________
Choose Healthy Snacks

Instructions: Draw a happy tooth beside the snacks which are good for you. Draw a tooth brush beside the snacks that can lead to tooth decay and must be brushed away.

apple  sunflower seeds  banana
milk  bubble gum  lollipop
candy bar  peanuts in the shell  unsweetened orange juice
cookies  carrot sticks  cheese & crackers

Reprinted with permission from the Nova Scotia Department of Health & Fitness.
The Story of Tooth Decay

Instruction: Cut and paste the pictures below in the correct slot to tell the story of tooth decay.

Plaque + Sugar = Acid

Acid + Tooth = Decay

Adapted from materials produced by the Nova Scotia Department of Health & Fitness.
Discover Healthy Eating! A Teacher's Resource for Grades 1 – 6, 2009

Activities, Grade 3

You Are Eating More Healthy Snacks. Move One Space Ahead.

Use Buttons for Markers

Dos and Don'ts

Be the First to Reach the Smile.
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Background Information
Grades 4-6

1. What is Healthy Eating?

Healthy eating provides children with the energy and nutrients they need for:

- Healthy growth and development,
- Academic performance, and
- Participation in regular physical activity.

Learning about healthy eating not only means understanding Canada’s Food Guide, but it also means learning how to develop healthy habits that will last a lifetime. This section discusses principles of Canada’s Food Guide, as well as how to use the concepts of ‘everyday’ and ‘sometimes’ foods to teach children a positive approach to eating. Healthy snacks and meals, in particular breakfast, and their importance to the body are explained. Calories and nutrients are defined and label reading is introduced for the Grade 5 curriculum along with other related activities.

The background information also discusses the importance of physical activity, as well as body image and self-esteem as issues that influence eating habits in children.

1.1 Eating Well with Canada’s Food Guide

In 2007 Canada’s Food Guide to Healthy Eating was redesigned and renamed Eating Well with Canada’s Food Guide. This revision was intended to reflect the updated nutrient recommendations (Dietary Reference Intakes) and to help make the Guide easier to understand and use. Canada’s Food Guide describes the amount and type of food considered to be part of a healthy eating pattern. This type of pattern helps individuals meet their nutrient needs, reduce their risk of chronic disease and achieve overall health and vitality.

When teaching Canada’s Food Guide, use the rainbow design to help communicate that the different sizes of the arcs represent the proportion of each food group in a healthy eating pattern. Canada’s Food Guide recommends enjoying a variety of foods from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives.

a) Food Guide Serving Sizes

A Food Guide Serving is simply a reference amount. Food Guide Servings help you understand how much food is recommended every day from each of the four food groups. In some cases, a Food Guide Serving may be close to the amount you eat, such as an apple. In other cases, such as rice or pasta, you may serve yourself more than one Food Guide Serving at a meal. It is also important to note that the serving size on a nutrition label is not always equivalent to a Food Guide Serving or to the amount you normally eat.
Canada’s Food Guide recommends a different number of Food Guide Servings for different age and gender groups. The amount of food children will eat also depends on their appetite, their activity level and how fast they are growing. Although children’s energy needs tend to increase through puberty, this increase is not steady and varies according to each child’s own growth pattern. As a general rule, if children eat according to their appetites and meet, at a minimum, the recommended number of Food Guide Servings for all four food groups, they will get the nutrition they need.

The following chart gives examples of foods from each of the four food groups and their Food Guide Serving sizes.

### Sample Food Guide Serving Sizes

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>vegetable (whole)</td>
<td>1 medium</td>
<td>bread</td>
<td>1 slice or 35g</td>
<td>milk or chocolate milk</td>
<td>250 mL or 1 cup</td>
<td>cooked fish or shellfish</td>
<td>75 g</td>
</tr>
<tr>
<td>vegetable (pieces)</td>
<td>125 mL or ½ cup</td>
<td>bagel</td>
<td>½ bagel or 45g</td>
<td>hard cheese</td>
<td>1.5 oz. or 50 g</td>
<td>cooked poultry</td>
<td>75 g</td>
</tr>
<tr>
<td>fruit (whole)</td>
<td>1 medium</td>
<td>flatbreads</td>
<td>1/2 or 35g</td>
<td>cheese slices</td>
<td>2 slices or 50 g</td>
<td>cooked lean meat</td>
<td>75 g</td>
</tr>
<tr>
<td>fruit (pieces)</td>
<td>125 mL or ½ cup</td>
<td>cooked rice</td>
<td>125 mL or ½ cup</td>
<td>yogurt</td>
<td>175 g or ¾ cup</td>
<td>cooked legumes</td>
<td>175 mL or ¾ cup</td>
</tr>
<tr>
<td>raw leafy vegetables (e.g., salad)</td>
<td>250 mL or 1 cup</td>
<td>cooked pasta or couscous</td>
<td>125 mL or ½ cup</td>
<td>fortified soy beverage</td>
<td>250 mL or 1 cup</td>
<td>tofu</td>
<td>175 mL or ¾ cup (150g)</td>
</tr>
<tr>
<td>Cooked leafy vegetables (e.g., cooked spinach)</td>
<td>125 mL or ½ cup</td>
<td>cereal (cold)</td>
<td>30 g</td>
<td>kefir (yogurt beverage)</td>
<td>175 g or ¾ cup</td>
<td>eggs</td>
<td>2</td>
</tr>
<tr>
<td>100% fruit or vegetable juice (not fruit punch or drink)</td>
<td>125 mL or ½ cup</td>
<td>cereal (hot)</td>
<td>175 mL or ¼ cup</td>
<td>cottage cheese</td>
<td>250 mL or 1 cup</td>
<td>peanut or nut butter</td>
<td>30 mL or 2 Tbsp</td>
</tr>
</tbody>
</table>

For more examples of Food Guide Serving sizes, please visit [www.healthcanada.gc.ca/foodguide](http://www.healthcanada.gc.ca/foodguide).
b) The Four Food Groups’ Key Messages

1) Vegetables and Fruit

**Eat at least one dark green and one orange vegetable each day.**

- Dark green vegetables are important sources of **folate**. Examples include broccoli, spinach, romaine lettuce, green beans, brussel sprouts and bok choy.
- Orange vegetables are rich in carotenoids such as beta-carotene, which the body converts to **vitamin A**. These include carrots, squash and sweet potatoes. Some orange-coloured fruit such as apricots, cantaloupe, mango and papaya are also important sources of carotenoids. You can eat them in place of an orange vegetable.

**Choose vegetables and fruit prepared with little or no added fat, sugar or salt.**

Most vegetables and fruit are naturally low in fat. Examples of higher fat choices include french fries, onion rings, salads with large amounts of dressing, and fruit served with cream. Fruit packed in heavy syrup has more sugar and adds extra calories. Choose fresh fruit, unsweetened frozen fruit or fruit packed in water or juice. Look at the Nutrition Facts table on the package to find the amount of fat and **salt** (sodium) in prepared and packaged vegetables. Use fresh or dried herbs, spices, flavoured vinegars or lemon juice instead of **salt** to enhance the flavour of vegetables.

**Have vegetables and fruit more often than juice.**

Vegetables and fruit contain fibre while their juices contain little to none. Fibre can help you feel full and satisfied. Children should be encouraged to try a variety of vegetables and fruit.

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**Beware of packaged food with the word ‘fruit’ and ‘vegetable’ in their name. Examples of these types of foods include fruit snacks, vegetable chips, fruit jams, and fruit ‘drinks’, ‘cocktails’ or ‘punches’. Most of these products are high in sugar, salt and/or fat, and contain little amounts of real fruit or vegetables. As a result, they do not belong in this food group.**

---

**Many of the fruit ‘drinks’, ‘beverages’, ‘cocktails’, or ‘punches’ available are mostly sugar, with some vitamins added and do not provide children with the other vitamins and minerals naturally found in 100% pure fruit or vegetable juice. See the section 1.4 Rethink What You Drink for more information on beverages.**
2) Grain Products

Make at least half of your grain products whole grain each day.

Whole grains and whole grain foods are composed of all three layers of the grain seed or kernel:

- The bran (outer layer): provides all of the fibre as well as B vitamins; minerals such as magnesium, iron and zinc, phytochemicals, and some protein.
- The endosperm (middle layer): accounts for the majority of the weight of the grain and is composed mostly of carbohydrate and protein.
- The germ (inner layer): provides B vitamins, unsaturated fats, vitamin E, minerals and phytochemicals.

Examples of whole grains include brown rice, bulgur, pot barley, quinoa, whole oats or oatmeal, whole grain wheat and whole rye. You can find out if a product is made with whole grain by reading the ingredient list on the food label. Whole grain foods will have the words ‘whole’ or ‘whole grain’ followed by the name of the grain as one of the first ingredients.

Choose grain products that are lower in fat, sugar or salt.

Baked goods such as cakes, croissants, doughnuts, pastries, pies and most cookies and muffins will add extra calories, fat, sugar and/or salt (sodium) to the diet and should be limited. These foods are typically low in fibre and are not usually made with whole grains. Use the ingredient list and Nutrition Facts table on food labels to compare products and make informed choices. Choose products that have as little trans fat and saturated fats as possible. Avoid products that have ‘partially hydrogenated’ and ‘vegetable oil shortening’ in the ingredient list.

3) Milk and Alternatives

Drink skim, 1% or 2% milk each day.

Everyone should drink two cups of low fat milk each day to obtain adequate vitamin D. Drinking low fat milk is an effective way to consume protein, calcium, magnesium, riboflavin, vitamin A, vitamin B12, vitamin D and zinc while minimizing the amount of saturated fat and calories.

Fortified soy beverage can be used as an alternative to milk. Rice, potato and almond
beverages may be fortified, however, these types of beverages do not contain the level of protein found in milk and fortified soy beverage. Look for the word ‘fortified’ on the label of soy beverages, as only these contain added vitamins and minerals to make them a nutritionally adequate alternative. It’s important to shake the container since added calcium may stick to the package lining.

Select lower fat milk alternatives.

Lower fat yogurts are those with 2% milk fat (M.F.) or less. Lower fat cheeses have 20% M.F. or less. Selecting these lower fat products helps to reduce saturated fat intake.

Cream cheese, sour cream, and ice cream are not a part of the Milk and Alternatives food group since they tend to be higher in fat and sugar and their calcium content is very low. The ‘chocolate bar’ milkshakes available are high in sugar and fat. Chocolate or strawberry milk is a healthy choice because they have the same amount of nutrients as white milk.

4) Meat and Alternatives

Have meat alternatives such as beans, lentils and tofu often.
Beans, lentils and tofu are sources of protein, fibre and folate. Eating more of these meat alternatives helps to minimize the amount of saturated fat in the diet.

Eat at least 2 Food Guide Servings of fish each week.
Fish is a great source of protein. It is low in saturated fat, with some types containing the omega-3 fatty acids. People are encouraged to eat at two Food Guide Servings (150 grams) of fish each week to help reduce the risk of cardiovascular disease. Choose fish such as char, herring, mackerel, rainbow trout, salmon and sardines as these are good sources of omega-3 fats. Fish should be cooked using lower fat preparation methods, such as baking or broiling. Deep-fried fish or fast food fish sandwiches do not offer the same cardiovascular benefits.

Certain types of fish contain high levels of methylmercury, a strong toxin that concentrates in the muscle tissue of fish and shellfish. Higher methylmercury levels are typically found in large predatory fish, such as white (albacore) tuna, shark, king mackerel and swordfish; which accumulate methylmercury over their life span. Choose fish that are low in methylmercury. In terms of canned tuna, children should be offered canned ‘light’ tuna instead of ‘white’ tuna.

Select lean meat and alternatives prepared with little or no fat.
Canada’s Food Guide emphasizes lean cuts of meat and skinless poultry to minimize the amount of saturated fat in the diet. Lean meat, poultry and fish become higher fat choices once they are fried, deep-fried or served with higher fat sauces. Canada’s Food Guide recommends baking, broiling, poaching or roasting meats and allowing the fat to drain off.

When looking for processed deli meat, it is best to choose those that are lower in fat, like chicken, turkey and black forest ham. Foods such as hot dogs, bologna, chicken nuggets etc. are not the best choices as they tend to be high in saturated fat.
c) Oils and Fats in our Diet

Oils and fats play an important role in supplying calories and essential fats, and to help our bodies absorb the fat-soluble vitamins A, D, E and K. The type of fat we eat is as important as the amount of fat. **Unsaturated fats** can help keep blood cholesterol levels healthy. There are two types of **unsaturated fats**: monounsaturated and polyunsaturated. Vegetable oils like canola, olive and soybean contain mainly monounsaturated and polyunsaturated fats. Canada’s Food Guide recommends that we use a small amount of **unsaturated fat** each day: 30 to 45 mL (2 to 3 tablespoons). This includes oil used for cooking, salad dressings, and non-hydrogenated margarine.

**Saturated fats** and **trans fat** are harmful to heart health and raise blood cholesterol and increase the risk of **cardiovascular disease**. **Saturated fats** are mainly found in animal products like meats, butter, milk, cheese and eggs. **Trans fat** is mostly found in processed foods containing shortening or **partially hydrogenated** oil. Canada’s Food Guide recommends choosing foods that contain less fat, saturated fat and trans fat.

For more information on fats, see section 1.4 Calories and Nutrients.

d) Counting Food Guide Servings in Mixed Dishes

Children also need to understand that foods can appear in many different forms and that most meals are made of a mix of different foods. Mixed dishes such as casseroles, stews and stir-fries have ingredients from at least two food groups. It helps to describe and even demonstrate what happens to a food when it is cut, chopped, beaten, mixed, heated or cooled, or combined with other foods.

Here are some examples of how to count Food Guide Servings in mixed dishes:

**Chile Con Carne with Beans**

- 125 mL (½ cup) tomato sauce = 1 **Vegetables and Fruit** Food Guide Serving
- 125 mL (½ cup) celery, onion, stewed tomatoes = 1 **Vegetables and Fruit** Food Guide Serving
- 75 g (2 ½ oz.) ground beef = 1 **Meat and Alternatives** Food Guide Serving
- About 90 mL (6 Tbsp) kidney beans = about ½ **Meat and Alternatives** Food Guide Serving
Dal

125 mL (½ cup) tomato, onion = 1 Vegetables and Fruit Food Guide Serving
175 mL (¾ cup) lentils = 1 Meat and Alternatives Food Guide Serving

Fajita with Beef and Vegetables

125 mL (½ cup) sweet green pepper, onion, tomato = 1 Vegetables and Fruit Food Guide Serving
1 tortilla (70 g) = 2 Grain Products Food Guide Servings
About 35 g (1 ¼ oz.) steak = about ½ Meat and Alternatives Food Guide Serving
5 mL (1 tsp) vegetable oil = part of your Oils and Fat intake for the day

1.2 Where Food Comes From

Many children believe that food comes from a grocery store or a restaurant. With the increased use of processed, convenience foods in colourful packaging, many children do not connect packaged items to the original basic or staple food from which it was produced from.

It is important to talk about where food comes from. Children need to learn that most of the foods packed in their lunches or served at dinner come from farms, gardens or greenhouses; either directly from crops or from the animals that eat the crops. Harvested food goes to the store where we buy it, prepare it and then put it on our plates. Food may also travel to large factories to be processed, packaged and transformed into products that may bear little resemblance to the original food. Children should appreciate how the staple foods are turned into every day products. It is important for them to realize that without farmers we would not have food. Children can have fun learning how the foods produced by farmers are turned into every day products (e.g., What is made from potatoes? What is made from wheat?)

Vegetables and Fruit: Discuss that vegetables and fruit come from plants that are grown in fields, gardens and farms. Choices from the Vegetables and Fruit group come from many parts of plants, such as the root (e.g., carrots, radishes), the stem (e.g., celery, asparagus), the leaf (e.g., spinach, bok choy), the fruit (e.g., tomato, green pepper), or the flower (e.g., cauliflower, broccoli). Many vegetables that we eat are classified as fruits botanically because they contain
seeds (e.g., tomato and cucumber). Fruits grow on trees (e.g., peaches, mangos, lemons), vines (e.g., grapes, pumpkins, melons), and bushes (e.g., blueberries, gooseberries).

**Grain Products:** Discuss that grains are plants that are harvested and made into grain products. Types of grains include: wheat, oats, barley, rice, corn and rye. These grains are harvested, ground into flour or used whole to make products such as bread, crackers, buns, oatmeal, etc.

**Milk and Alternatives:** Discuss that milk, cheese, and yogurt come from cows and other animals (i.e. goats). Milk alternatives include **fortified** soy beverages for people who cannot drink milk. Soy comes from soybeans, a type of legume that is rich in protein and other nutrients.

**Meat and Alternatives:** This food group provides **protein** for many uses in the body, including building muscle, bone, skin and blood. Discuss how meat comes from animals: discuss pork, beef, chicken, wild game, etc. Meat alternatives are **protein**-rich foods that come from plants including: beans, lentils, nuts, seeds and soybeans. Eggs are also a source of **protein** in this group.

Ontario Agri-Food Education Inc. (OAFE) has many curriculum related resources that address the relationship between farm and plate. The Teacher's Toolkit is a reference guide of factual information and resources related to the agri-food industry. Curriculum connections for Grades 1 to 8 can be found at [http://www.oafe.org/user_files/articles/toolkit_oafe.pdf](http://www.oafe.org/user_files/articles/toolkit_oafe.pdf). Or go to [www.oafe.org](http://www.oafe.org) and click ‘resources’.

**1.3 Foods and Beverages to Limit**

Canadians get 23% of their calories from the foods and beverages that are not part of the four food groups (Garriguet, 2004). Foods and beverages that are high in calories, fat, sugar and/or **salt** (sodium) and low in nutrients are considered foods to limit.

Examples of foods and beverages to limit:

- Cakes and pastries
- Chocolate and candies
- Cookies and granola bars
- Ice cream and frozen desserts
- Doughnuts and muffins
- French fries
- Potato chips, nachos and other salty snacks
- Alcohol
- Fruit flavoured drinks
- Soft drinks
- Sports drinks
- Energy drinks
- Sweetened hot or cold drinks
Portion sizes of foods to limit have increased considerably over the years, contributing to excessive caloric intake. This is why it’s important to be aware of portion sizes when selecting foods and beverages and to listen to your body’s hunger and satiety cues. Adults and children are encouraged to choose foods and beverages that are nutrient dense more often. By choosing foods from the four food groups we ensure that we are consuming nutrient dense foods and beverages.

1.4 Rethink What You Drink

Water
Canada’s Food Guide recommends drinking water to satisfy thirst. Water maintains normal body functions and prevents dehydration. Fortunately, in most areas of the province, municipal tap water is safe to drink. In rural areas many people use well water that needs to be tested regularly by the homeowner. This service is free from your local health unit/department.

Milk
Canada’s Food Guide recommends two servings of fluid milk daily for everyone. Youth 9 to 18 years of age should consume an additional 1-2 servings of Milk and Alternatives daily. Fortified soy beverage can be used as an alternative to milk. Chocolate milk is a healthy choice, as it contains the same nutrients as white milk and the same amount of sugar as unsweetened orange juice.

Juice
100% unsweetened vegetable or fruit juices can also be a healthy beverage choice, however, juice intake should be limited to about 1 cup per day for children. Vegetables and fruit should be consumed more often than juice to get more fibre and to help feel full and satisfied. When choosing fruit juice, it is important to look for ‘100% juice’ on the label. Many fruit drinks, punches and cocktails contain less than 10% juice and are mostly water and sugar.

Sweetened Beverages
Soft drinks and other sweetened beverages like fruit drinks, sports drinks and energy drinks contain large amounts of sugar with little nutritional value. These beverages have come to displace more nutritious beverages and foods from our diets. The consumption of these beverages should be limited.

Studies suggest that when we drink liquids, the body’s satiety cues are not triggered in the same way as eating solids (Della Valle et al., 2005; and DiMeglio et al., 2000). This means that our bodies do not register calories from liquids in the same way as calories from food. Therefore, we don’t make up for liquid calories by eating less solid food. This is exacerbated by the increased consumption and larger portion sizes of sweetened beverages over the last few decades.

Some beverages such as pop or energy drinks may contain caffeine. Energy drinks are not recommended for children and youth due to their high caffeine content. Caffeine can cause nervousness, irritability, headaches and difficulty sleeping. Drinking one can of pop with caffeine affects a child in the same way as three to four cups of coffee would affect an adult.
Cola and diet cola drinks also contain phosphoric acid. Phosphoric acid weakens tooth enamel and increases the risk of dental cavities. It is important that healthy drinks like milk not be replaced by soft drinks or other sweetened beverages.

1.5 Understanding ‘Everyday’ and ‘Sometimes’ Foods

Children tend to classify foods as ‘good’ or ‘bad’. This classification will not help children develop a positive approach toward eating. Healthy eating is the total sum of all food choices made over time. It is the overall pattern of foods eaten and not any one food or meal that determines if an eating pattern is healthy.

To help children learn to follow a healthy eating pattern, it is more effective to classify foods as ‘everyday’ and ‘sometimes foods’. Foods which are nutrient dense can be considered ‘everyday’ foods. Foods from the four food groups, such as vegetables, fruit, milk, cheese, yogurt, whole grains, fish and legumes are examples of ‘everyday foods’ that we should choose for meals and snacks. Canada’s Food Guide describes the foods and beverages that do not fit into any of the food groups as ‘less healthy choices’ and these can be considered as ‘sometimes foods’. These foods are low in nutrients and high in calories, fat, sugar and/or salt. See examples listed under the ‘Less Healthy Choices’ section. ‘Sometimes foods’ should be limited, but can be enjoyed occasionally. What matters most is what people eat on a regular basis.

1.6 The Importance of Food to the Body

The importance of food should be explained in simple terms: “Food gives you energy to learn and play, it helps you grow and it keeps your body working”.

Canada’s Food Guide recommends the number of Food Guide Servings children should eat from each of the four food groups every day. The amount of food eaten at each meal and snack will vary day-to-day depending on the child’s appetite, activity level and whether he or she is going through a growth spurt. Children need to eat small amounts of food throughout the day because they have small stomachs that tend to fill up quickly. Children should be offered healthy foods and beverages at all meals and snacks to ensure they are meeting their calorie and nutrient needs. It is important that children listen to their hunger and satiety cues. When teaching about healthy eating, children should be encouraged to listen to their bodies and to eat healthy foods when hungry and to stop when they feel full. Children can often relate to the need for food when they think of how they feel when they don’t eat breakfast.

Healthy Breakfast

Children who eat a nutritious breakfast daily may be better prepared to participate in learning activities than those who do not eat breakfast (Ontario Society of Nutrition Professionals in Public Health (OSNPPH), 2004). Students who do not eat breakfast daily are 1.5 times more likely to be overweight (Veugelers et al., 2005).
A complete breakfast should include foods from 3-4 of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. A variety of different foods for breakfast helps to ensure that the body gets the nutrients and energy that it needs. Foods served at breakfast do not have to be ‘traditional’ breakfast foods such as toast or cereal. All kinds of food can be eaten. For example, people from some cultures may eat soup, rice, fish, dal, tortilla, leftover pizza or pasta for breakfast.

Breakfast does not have to be eaten as soon as a child wakes up, or even before the child leaves the home. If breakfast can’t be eaten at home, eating a ‘traveling’ breakfast or arriving early and eating at school are also possibilities. Some schools have universal breakfast and/or snack programs for children. See the ‘Healthy Snacks’ section that follows for more information.

**Healthy Snacks**

Young children need healthy snacks in between meals to ensure that they get an adequate intake of nutrients to meet their growth and activity demands. Packing a healthy snack to eat during recess can also help a child through the later part of the morning or afternoon. Research indicates that most children do not meet the minimum five servings of Vegetables and Fruit (Garriguet, 2004), so it is recommended to choose vegetables and fruit more often as snacks. Children should be encouraged to pack snacks that include foods from at least one of the four food groups. For classroom snacks shared among the whole class, serve only ‘everyday foods’ instead of ‘sometimes foods’. For example: fruit, vegetables, yogurt, whole grain crackers and/or lower fat cheese as opposed to doughnuts, cupcakes, candy etc.

Student Nutrition Programs allow all students to have at least one healthy meal or snack each day without singling out those who may come to school hungry. The Ontario Ministry of Children and Youth Services funds Student Nutrition Programs, which can be found in some elementary and high schools. These programs are developed by local schools and community agencies, are mostly run by volunteers (i.e. parents, teachers and school staff), and follow Ministry guidelines for nutrition. For more information on Student Nutrition Programs, go to the Ministry website at [http://www.gov.on.ca/children/english/programs/beststart/nutrition/index.html](http://www.gov.on.ca/children/english/programs/beststart/nutrition/index.html). For local programs contact your local health unit/department.

**1.7 Calories and Nutrients**

Healthy eating helps children meet their energy needs for growth, development and activity. Nutrients in food provide energy, facilitate growth, and help the body function properly. There are two main categories of nutrients: macronutrients and micronutrients.

Macronutrients are needed in relatively large quantities and they provide energy for the body. The three types of macronutrients are:
- Carbohydrate
- Fat
- Protein
Micronutrients are needed in relatively small quantities, perform specific functions and help the body use the macronutrients. Micronutrients do not provide energy. The three types of micronutrients are:

- Vitamins
- Minerals
- Water

**Calories**

A calorie (or kilojoules in the metric system) is a measure of how much energy food can supply the body. The body uses the food eaten as fuel, burning it to produce energy. The body needs energy to function. Some nutrients have more calories than others do. There are four calories in each gram of carbohydrate and each gram of protein. There are nine calories in each gram of fat. Alcohol has seven calories per gram. Vitamins, minerals and water do not provide calories.

**Carbohydrate**

Between 4 and 18 years of age, 45-65% of total calories should come from carbohydrates. Carbohydrate is the body's major source of energy. There are three main types of carbohydrates:

- Sugar/simple carbohydrates - found in milk, fruit, table sugar, and candy
- Starch/complex carbohydrates - found in grains, breads, crackers, pasta, beans and lentils
- Fibre - found in vegetables, fruit, whole grains, beans and lentils. Fibre is the portion of plant foods that the body cannot digest.

**Fibre**

*Canada's Food Guide* encourages people to eat foods that are high in fibre. Eating patterns high in dietary fibre are associated with a healthy digestive system, and a lower incidence of *cardiovascular disease* and some types of cancer. Males between 9 and 13 years of age need 31 grams of fibre daily and girls need 26 grams. It is important to teach about the benefits of fibre. A study of nutrient intakes showed 94% of Ontario students in grades 6, 7 and 8 were below the requirement for fibre (Hanning et al., 2007).

**Fat**

Between 4 and 18 years of age, 25-35% of calories should come from fat. Fats and oils play an important role in that they supply calories and essential fats and help our bodies absorb the *fat-soluble* vitamins A, D, E and K. There are three main types of fat in our diet:

- **Unsaturated fats**, such as monounsaturates and polyunsaturates, are found in vegetable oils like canola, olive and soybean oils. These types of fat are healthy.
- **Saturated fats** are mainly found in animal products like meats, butter, milk, cheese and eggs. Large amounts of these types of fat are known to raise blood cholesterol and increase the risk of *cardiovascular disease*. 
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*Discover Healthy Eating! A Teacher’s Resource for Grades 1-8, 2009*
- **Trans fat** is mainly found in processed foods, baked goods and hard (stick) margarines containing shortening or **partially hydrogenated** oil. **Trans fat** raises blood cholesterol and increases the **risk of cardiovascular disease**.

**Tips to Avoid Trans Fat:**
- Avoid products that have ‘**partially hydrogenated**’ and ‘vegetable oil shortening’ in the ingredient list.
- Use the Nutrition Facts panel to choose products that have as little **trans fat** as possible.
- When choosing margarine, look for ones that say ‘non-hydrogenated’ on the package.

**Protein**
Between 4 and 18 years of age, 10-30% of total calories should come from protein. Aside from water, proteins are the most abundant substances in the human body. Proteins are found in every body cell and are essential for many body functions. Proteins are made up of **amino acids**. The body uses amino acids to develop bone, muscle, skin, and blood. Some common sources of dietary protein are fish, poultry, meat, legumes (beans, lentils), eggs, tofu, nuts, and milk products (milk, cheese, yogurt).

**Vitamins**
Vitamins do not provide energy but do help the body grow and stay healthy. Fruits, vegetables and enriched grain products are good sources of many vitamins. **Vitamin A** is an example of a vitamin that helps keep our skin and our eyes healthy. Carrots, spinach and broccoli are excellent sources of **Vitamin A**. Other examples of vitamins our bodies need are vitamins C, D, E, K and the B vitamins (e.g., folic acid).

**Minerals**
Minerals help build bones and teeth, help muscles work and are involved in various metabolic pathways. Calcium is an example of a mineral that helps build bones and teeth. Other examples of minerals our bodies need that we get from food are potassium, sodium, iron, zinc, phosphorus, magnesium, and copper.

**Water**
About 50-60% of our total body weight is water. A person can survive only a few days without water. Water has many functions including carrying nutrients and oxygen to cells, maintaining body temperature, and assisting in digestion and respiration. Under normal circumstances, the body loses water through breathing, sweating and excreting wastes. When it’s hot outside, your body loses even more water through sweat, especially if you’re active. Your physical performance and your ability to think can be impaired by losing as little as 1 – 2% of your body weight from fluids.
It is important to teach students about the importance of drinking enough water to prevent dehydration (about 1.2-2 litres per day). Beverages provide 80% of daily water intake while the other 20% comes from food. Children between the ages of 9 to 13 need 1.6 – 1.8 litres of liquids per day; with water being the main contributor. Listening to one's thirst signal is not enough. Thirst is often one of the last signs of dehydration – you need to drink fluid before you become thirsty. Ensure that children have easy access to water and encourage them to drink frequently throughout the day.

1.8 Reading Food Labels

Food labels can help consumers choose foods for healthy eating. Food labels provide various types of information and can guide consumers in making decisions about food purchases. Food labels help consumers to:

- Compare products more easily
- Determine the nutritional value of foods
- Better manage special diets
- Increase or decrease intake of a specific nutrient

In Canada, nutrition labelling refers to the standardized presentation of the nutrient content of a food. Government regulations outline what type of information is mandatory on labels as well as how this information must be presented. Most prepackaged foods have nutrition information in three places:

1) Ingredient List
2) Nutrition Facts table
3) Nutrition Claims

The Ingredient List

- Lists ingredients by weight, from most to least. For example, a cereal package that lists sugar as the first ingredient contains more sugar than any other ingredient.
- Helps to identify sources of the nutrients.
- A source of information for people with allergies or people who want to avoid certain ingredients.

The Nutrition Facts Table

- Includes information on calories and 13 core nutrients: fat, **saturated fat**, **trans fat**, cholesterol, sodium, carbohydrate, fibre, sugars, protein, **vitamin A**, vitamin C, calcium and iron.
- Exemptions include fresh fruit and vegetables; raw meat, fish, seafood and poultry; alcoholic beverages; foods sold at craft shows, farmers’ markets etc.; foods prepared and packaged at the store; and products with insignificant amounts of the 13 core nutrients like coffee, tea and spices.
- Has a consistent look and content, is easy to read and locate, and nutrients are always listed in the same order.
- All nutrient information is based on a serving size, a specific amount of food that is measured in household units - such as a cup of milk, or a slice of bread - followed by the metric measurement (g, mL).

**Important Note:**

The serving size listed on the Nutrition Facts table is not a recommended serving. It may be different from a Food Guide Serving. The key is to compare the amount stated on the Nutrition Facts Table to the amount you actually eat. The bowl you use at breakfast might hold anywhere from a ½ cup to a 2 ½ cup amount of cereal. Having 2 ½ cups of a particular cereal may be five times the amount specified in the Nutrition Facts table. You would have to multiply the amount of calories and cereal nutrients by five.

- Contains the % Daily Value (DV) of most nutrients listed. % DV is based on how much of a specific nutrient a serving of food contains relative to the recommended daily amount. For example, 20% DV of calcium means that the food item contains 20% of the recommended daily amount of dietary calcium. The % DV indicates at a glance if there is a lot or a little of a nutrient in the specific amount of food. It is helpful for comparing foods because it puts all nutrients on the same scale (0% - 100% Daily Value). For example, a food that has a % Daily Value of 5% or less for fat, sodium or cholesterol would be low in these nutrients. A food that has a % Daily Value of 15% or more for calcium, **vitamin A** or fibre would be high in these nutrients.

**Nutrition Claims**

- Nutrition claims are optional; some manufacturers may choose to use them.
- Provide a quick way to identify foods with a specific nutritional feature.
- There are two types of Nutrition Claims: Nutrient Content Claims and Diet-Related Health Claims.
- Nutrient Content Claims describe the amount of a nutrient in a food (i.e., ‘reduced in fat’, ‘cholesterol free’, or ‘a high source of fibre’).
• Diet-Related Health Claims highlight a relationship between diet and a disease condition, and are supported by sound scientific evidence. There are five Diet-Related Health Claims allowed:
  - a diet low in sodium and high in potassium, and the reduction of risk of hypertension (high blood pressure);
  - a diet adequate in calcium and vitamin D, and the reduction of risk of osteoporosis;
  - a diet low in saturated fat and trans fat, and the reduction of risk of heart disease;
  - a diet rich in vegetables and fruits, and the reduction of risk of some types of cancer; and
  - minimal fermentable carbohydrates in gum, hard candy or breath-freshening products, and the reduction of risk of dental caries.

• All claims have to be supported by information provided under Nutrition Facts.
• Government regulations specify the wording of a claim as well as the criteria a food must meet to qualify for a claim.

Other Information on Food Packages

• Name of food
• Brand name
• Net quantity of product
• Manufacturer’s name and address
• Durable life date and storage instructions (e.g., best before date or date code)
• Point-of-purchase symbols: some manufacturers put symbols on their products using their own standards to rate the nutritional value of the product. It is important to be aware that these standards are not government-regulated.

2. Factors Influencing Food Choices

For children, eating is usually a social occasion with the people in their lives, including parents, older adults, peers and siblings. Observing others’ eating behaviour also influences the development of children’s own preferences and eating behaviour (Birch and Fisher, 1998). Eating behaviour can also be influenced by culture, family, personal likes and dislikes, etc. The media is also highly influential with regards to food selection, body image and self-esteem.

As children become older, sources of food and influences on eating behaviour increase (American Heart Association, 2006). At a young age, adults provide all meals and snacks; at older ages, children begin daycare, go to school, begin to prepare their own snacks, and purchase more meals and snacks outside of the home. These factors also influence children’s food choices, eating behaviour, body image and self-esteem.
2.1 Individual Preferences

Children’s food preferences are often guided by taste or preference (Taylor et. al., 2005). Children choose foods because they taste good and because eating those foods makes them feel good. For example, some foods (e.g., candy, cake) are associated with special occasions where people tend to be happy. Often people will eat out of habit rather than responding to hunger cues like eating while watching television. These factors can lead to less healthy choices.

Children come to like and eat what is familiar. What is familiar is usually what is present in the environment (Birch and Fisher, 1998), consequently making the food environment that surrounds children very important. Healthy choices should be available in all settings, including at home and at school, so that children are exposed to a variety of healthy foods. For example, dislike for vegetables is one of the three most important predictors of fruit and vegetable intake in children (Taylor et al., 2005). However, if children are eating vegetables and fruit with friends in a social setting, this can influence what types of foods they ‘like’.

2.2 Allergies

The incidence of life-threatening food allergies is increasing. Allergic reactions can happen anywhere - at home, in school or recreational facilities, at camp and on field trips. Severe allergic reactions (e.g. anaphylactic shock) occur when the body's immune system reacts to a particular allergen or irritant. Nine food substances are most frequently associated with food allergies and allergic-type reactions. These substances are often referred to as the nine priority food allergens and include peanuts, tree nuts, sesame seeds, soy, milk, eggs, seafood (fish, crustaceans and shellfish), wheat and other cereal grains containing gluten, and sulphites.

Children with allergies face many situations at school which could potentially place them at risk for exposure to food allergens. Contamination of tables, desks, books or toys with the foods, or inadequate or infrequent cleaning of tables, desks, and equipment can result in exposure to allergens. Other occasions that can pose risk include: sharing foods between children, special occasions and parties where food is served and/or available. It is important that all school community members are aware of the potential life threatening nature of food allergies and the proper treatment of an allergic reaction.

In 2005, the provincial government passed a bill known as ‘Sabrina’s Law’ to create safer school environments for children living with life-threatening allergies. Under the law school boards are required to have allergy management plans and training in place for all schools. School anaphylaxis plans ensure that children at risk are identified, strategies are in place to reduce the risk of exposure to allergens, and school staff is trained to respond to emergencies.

Sabrina’s Law can be found at:
http://www.edu.gov.on.ca/eng/healthyschools/anaphylaxis.html

More information on severe allergic reactions can be found on the Health Canada website at:
http://www.hc-sc.gc.ca/iyh-vsv/med/allerg_e.html
Health Canada and the Canadian Food Inspection Agency have created a series of pamphlets with information on each of the nine priority food allergens. These can be found at [http://www.hc-sc.gc.ca/fn-an/securit/allerg/fa-aa/index-eng.php](http://www.hc-sc.gc.ca/fn-an/securit/allerg/fa-aa/index-eng.php)

2.3 Culture

Food is only one aspect of cultural traditions, yet it is probably one of the most talked about. In different cultures food can be a source of pleasure, comfort, security, and a symbol of hospitality, social status and religious significance. Culture can influence what we select to eat, how we prepare and serve it, and even how we eat.

The Canadian population consists of many diverse ethno-cultural groups, providing an ideal opportunity to choose from a large variety of foods. For example, pizza and a variety of pasta dishes came from Italy, sausages and hamburgers from Germany, stir-fry dishes from China, and pita bread sandwiches from Lebanon. People from different ethnic backgrounds have traditionally based their food choices on what has grown in the climates of their country of origin. For example, North Americans have traditionally built their meals around wheat or corn, and Asians around rice. Colder countries, like Scotland, have relied on heartier grains such as oats and barley. Special foods that people eat on holiday occasions are also related to ethnic background. For example, many families have special food practices associated with festivals and days of significance.

The school community can help children to learn about the differences in peoples’ eating habits, likes and dislikes, and culture. This learning helps to support the diversity in healthy eating patterns. Students can learn that people from other parts of the world can choose different, nutritious foods (e.g., bread, rice, tortillas or roti). Parents are usually interested in sharing ethnic food and recipes. Discussion in the classroom about different foods can enable each child to feel individually involved by including foods that relate to their own eating habits.

Before discussing the food practices of multicultural groups, understand their value systems. Food habits are greatly influenced by a group’s values and the perception of healthy foods differs from one cultural group to another. On occasion, because of family, culture, and religious reasons, some children may not eat foods from the four food groups, but still meet their nutritional needs. It is important that you do not make the students feel that one value system and food practice is superior to another.

When there is discussion around cultural foods:

- Do not assume that students from a particular group have or have not adopted the food and dietary practices of the general Canadian population. Ask students to share their family’s food practices and eating patterns.
- Ask questions with an open mind – don’t be judgmental; children sharing food experiences can help establish trust, as well as knowledge, among classmates.
To support your teaching efforts in the classroom, translated copies of *Eating Well with Canada’s Food Guide* are available. Visit Health Canada at [www.healthcanada.gc.ca/foodguide.ca](http://www.healthcanada.gc.ca/foodguide.ca) for more information.

### 2.4 Family and Traditions

Parents are children’s most important source of information and influence for healthy eating. Parents shape children’s eating behaviour in a variety of ways: by the choice of an infant feeding method (i.e., breastfeeding or formula feeding), by the foods they make available and accessible, by direct modelling influences, by the extent of media exposure in the home, and by the way they interact with children in the eating context (Birch and Fisher, 1998).

**a) Parental role-modelling** is important in establishing children’s food choices. Depending on their own food choices, parents can either be positive or negative role models (AHA, 2006). An example of positive role-modelling is when parents eat breakfast, it’s likely that their children will do the same. Meanwhile those who reward children with high-fat/high-sugar foods or restrict the intake of such foods, generally have children who develop an increased preference for these foods. Modelling certain behaviours may play a role in the emergence of dieting activities in childhood and adolescence. For example, research suggests that dieting daughters are likely to have dieting mothers and that parents who report problems in controlling their eating are likely to have daughters who show similar patterns (Birch and Fisher, 1998).

**b) Family meals** can have a positive influence on children and youth food selections. Family eating patterns include what, when they eat, where they eat and why they eat. These eating patterns accommodate the schedules, family size, and activity levels of different members. Families that eat meals together are associated with higher intakes of vegetables and fruit, milk products and improved nutrient intakes (Taylor et al., 2005). Children who eat together with the family have also been shown to have healthier eating habits (Gillman et al., 2000), do better in school, and have more self-esteem (Eisenberg et al., 2004).

**c) Family income** is another factor that influences what children eat and the food choices that are available to them. Everyone has a right to access healthy foods. However, due to a variety of reasons, families might not have the means to offer healthy choices at home.

Food security is said to exist when people can get enough food to eat that is safe, that they like to eat and that helps them to be healthy. They must be able to get this food in ways that make them feel good about themselves and their families (Ontario Public Health Association, 1995).

There are many reasons why families may not have enough money to obtain food. Factors that affect the ability to shop for and prepare nutritious foods include inadequate household income, lack of time, lack of knowledge and skills, a single parent household, etc. High unemployment, low incomes for the working poor, high housing costs, transportation and other basic necessities, and inadequate social assistance payments all contribute to the poverty which limits access to a
healthy diet (OPHA, 1995). Low literacy levels, a lack of opportunities for skill development and lack of childcare make it difficult for people to access healthy food (OPHA, 1995).

It is important for teachers and other school community members to be sensitive to the fact that the foods children bring to school (e.g., in lunch bags, for snacks) will be influenced by the home situation and the level of food insecurity experienced by their parents and caregivers.

Well-documented research shows that there is a clear link between good nutrition and school performance (OSNPPH, 2004). Well-nourished children do better and behave better in school.

Students may come to school hungry because they have missed breakfast, have forgotten their lunch or their family is unable to consistently provide lunch. Hunger affects students in various ways. Some may become tired while others may become hyperactive. Other warning signs may include aggressive behaviour, irritability, high anxiety, depression, difficulty concentrating, stealing food, short attention span, hyperactivity, and anti-social behaviour. Keep in mind these warning signs may instead indicate an underlying medical condition such as diabetes, an eating disorder or allergies.

**Actions You Can Take if a Child is Hungry**

- Speak to the parent/caregiver to try and determine why the child might be hungry.
- Offer the student an opportunity to eat part of their lunch or snack before the next scheduled snack or meal.
- If your school has an emergency food pantry, offer the student a snack until they can have their next meal. Stock the pantry with non-perishable food items from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. Consider storing perishable milk products in the school’s refrigerator if space allows.
- Contact your local public health unit/department for more information about community food programs that can assist the family.
- If hunger is a chronic issue for the student and their family, speak to the principal about other options for support.

**2.5 Peers**

Although children identify strongly with their family, positive role modelling of healthy eating can also come from children’s friends and classmates. Peer pressure influences children of all ages. Acceptance in a peer group can depend on eating, liking and doing the same things as the other children in the group. If children see their classmates and friends enthusiastically eating healthy foods such as fresh fruit and vegetables, they will be more willing to enjoy them as well. Offering healthy choices for classroom celebrations provides the perfect opportunity for children to socialize and role model healthy eating behaviour with each other.
2.6 Volunteers and Professionals Who Work with Children

Positive role modelling of healthy eating and positive body image by adults working with children encourages students to value and enjoy healthy eating and promotes student preferences for healthy foods and beverages (Creating a Healthy School Nutrition Environment Health Unit Collaboration, 2007). Teachers, along with other school community members (e.g., secretaries, coaches, custodians, and school bus drivers) can have powerful effects on children through the example they set. Outside the school environment, camp leaders, coaches and others who work with children can also strongly support or hinder what children know about healthy eating and healthy living.

When planning class trips or special events, ensure that parent volunteers or other adults reinforce the healthy eating education learned in the class. For example, encourage them to pack nutritious lunches or drink water instead of pop. Discourage the use of foods as a reward for good behaviour, instead, offer a class reward such as extra physical activity time upon return to the school.

2.7 School Environments

In addition to providing opportunities for academic learning, schools have the capacity to enhance students’ health, self-esteem and development of lifelong skills and healthy eating behaviour. Schools are one of the most effective and efficient ways to reach almost all children, school personnel and families (World Health Organization, 1998).

It is important to help your school create an environment that supports healthy eating. A Healthy School Nutrition Environment is one where students can get the same message about food, nutrition and healthy eating wherever food is served - in the classroom, in the school and at home. An environment that supports healthy eating may influence the child’s preference for certain foods. For example, research has shown that children consumed more fruit and vegetables when schools served such foods. The authors concluded that the extent to which fruit and vegetables are made available and accessible to children may shape children’s liking for consumption of those foods (Birch and Fisher, 1998).

A healthy school nutrition environment contains nine essential elements (OSNPPH, 2004). Below is a list of the elements along with some questions to think about to help in practicing all nine elements.

1. Provide healthy, reasonably priced and culturally-appropriate food choices. For example when you have a classroom party, are healthy food choices offered? Do you reward children with non-food rewards?
2. Encourage positive role modelling of healthy eating by school staff and volunteers. Do you eat and drink healthy foods and beverages when in the presence of students?
3. Offer daily universal Student Nutrition Programs. Does your school have a snack or breakfast program?
4. Ensure safe food practices and allergy-safe surroundings. Do you monitor how the food-safe policy is being followed?
5. Schedule nutrition breaks at appropriate times. Are students getting a full 20 minutes to eat their lunch?
6. Implement school food and nutrition policies. Does your school have a food and nutrition policy that addresses all foods and beverages being sold or offered in school?
7. Offer nutrition education for staff. Do you participate in professional development opportunities on nutrition?
8. Offer nutrition education for students. Do you have up-to-date nutrition resources to support the healthy eating expectations in the curriculum? Are you spending enough time teaching the healthy eating expectations from the curriculum?
9. Provide student, parent and community education about healthy eating? For example, do you include nutrition activities that involve students’, parents and families?

Some of these elements can be directly influenced by teaching staff.

To learn more about healthy schools, contact your public health unit and/or visit www.osnpph.on.ca and click on ‘New Publications’ Call to Action: Creating a Healthy School Nutrition Environment.

2.8 Media Messages

The media has significant influence on children and food choices. Companies deliberately target this age group because children have money to spend, can influence their parents’ shopping decisions, and will eventually become adult consumers.

There are different marketing strategies that companies use on their target groups. Internet sites aimed at children and youth include advertising as part of interactive games, contests and free promotions. Online surveys provide marketing information which help companies understand what influences youth and how to sell to them. Endorsements by celebrities and sports stars promote brand loyalty.

The majority of food advertising has a negative effect on children’s health by making high fat, high sugar foods more desirable. Content analyses of television advertisements have shown that food is the most frequently advertised product category on children’s television, and the majority of these ads target highly sweetened products and are increasingly promoting fast food meals (Coon et al., 2002).

Teaching media literacy helps students learn how to critically analyze the intention of media messages. Schools can resist the influence of corporations that market unhealthy foods by avoiding: offers of teaching materials, fast food for fundraising, financial support for children’s events, and promises of school equipment and vending machine contracts that include unhealthy foods and beverages.
3. Physical Activity and Children

Physical activity, like healthy eating, is essential for healthy growth and development. Regular physical activity in childhood develops cardiovascular fitness, strength, flexibility and bone density. Encouraging children to build physical activity into their daily routine helps to create a healthy pattern that may stay with them for the rest of their lives. Regular physical activity also provides young people with opportunities for increasing their self-esteem and appreciation for their own bodies.

Every child, no matter their age, height, weight, natural abilities or skills, needs to be physically active to be healthy and strong. Everyone has different interests, abilities and strengths, so they need to be introduced to a variety of activities, and children need to know that sports are not the only way to stay active. Identifying other activities that are not competitive is essential. Some activity ideas include:

- Building a snowman
- Skating
- Swimming
- Roller-blading
- Bowling
- Chasing the dog
- Climbing trees
- Tobogganing
- Throwing a Frisbee
- Playing catch

What is Active Living?

Active Living promotes a way of life in which physical activity is valued and integrated into daily life, whether it’s taking the dog for a walk or riding your bike to the store. It stresses the importance of doing activities that feel good and that are moderate and fun. It is more than fitness and sport - it is a commitment to a healthy mind, spirit and environment, all linked through physical activity. Active living encourages everyone, not just people who are young and fit, to get up and get moving. Canada’s Physical Activity Guide to Healthy Active Living supports the concept of active living.

When fun and enjoyment are part of skill development and physical activity, children are more likely to develop a positive attitude towards healthy active living. Children may need to be given both encouragement and the opportunities to get up and move. Parents and educators can play a role in promoting this message to children. Integrating physical activity as an enjoyable part of their daily lifestyles helps to prevent heart disease, bone disease and other health conditions. Young people who are physically active are also less likely to smoke, drink, or do drugs, and more likely to have healthy eating habits (Prince Edward Island Healthy Eating Alliance, 2005).
Benefits of active living:

- Improved fitness
- Better sleep and more alert
- Fun
- Healthy body weight
- Healthy heart and lungs
- Relaxation
- Optimal learning ability
- Positive feelings about self/self-confidence
- Strong muscles and bones
- Flexibility
- Good balance and posture

How much Physical Activity should children get?

Canada’s Physical Activity Guides for Children and Youth provide a set of national guidelines to help children and youth improve their health through regular physical activity. The Guides recommend children and youth (Public Health Agency of Canada, 2002):

- Increase the amount of time currently spent doing physical activity by 30 minutes per day in periods of 5-10 minutes. Over several months, children and youth should try to accumulate over 90 minutes of physical activity per day.
- Reduce non-active time spent on sedentary activities like watching TV, videos, ‘surfing’ the Internet and playing computer games, starting with at least 30 minutes less per day and eventually trying to eliminate at least 90 minutes of non-active time.

Types of Physical Activity

There are three different types of physical activities that help keep the body healthy: endurance, flexibility and strength. A variety of each type of activity will provide the most health benefits.

Endurance activities help the heart, lungs, and circulatory system stay healthy and also provide more energy. These activities make you breathe deeper, your heart beat faster, and make you feel warm. Examples include walking, cycling, skating, taking the stairs and dancing.

Flexibility activities help move the body easily, keep muscles relaxed and joints mobile. This involves gentle reaching, bending, and stretching all of the muscle groups. Examples include bowling, curling, gardening and yoga.

Strength activities help the muscles and bones stay strong and improve posture. Examples include lifting weights, wearing a backpack carrying school books, carrying groceries, and exercises like abdominal crunches and push-ups.
Physical Activity at School

The Ministry of Education supports and promotes the participation of students in Daily Physical Activity (DPA) and has implemented a policy on this, entitled, Policy/Program Memorandum No. 138, ‘Daily Physical Activity in Elementary Schools, Grades 1–8’, October 6, 2005. This policy requires that all students in Grades 1 to 8, including students with special needs, to be provided with opportunities to participate in a minimum of twenty minutes of sustained moderate to vigorous physical activity each school day during instructional time. The goal of DPA is to enable all elementary students to improve or maintain their physical fitness and their overall health and wellness, and to enhance their learning opportunities.

The electronic versions of The Ontario Curriculum, Grades 1–8: Health and Physical Education, 1998, which are posted on the Ministry of Education website at http://www.edu.gov.on.ca, have been revised to reflect this requirement. On this website, there are also a variety of DPA resources available as PDF files for teachers to download.

Teachers can play a large role in teaching students about the need for physical activity. Teachers can create a classroom environment that values physical activity by including DPA or other related activities and by encouraging students to try something new. Introduce new activities and let them try them in the classroom. You may want to initiate a class physical activity project for a week or month, in an effort to get them to be more active every day. The most important result is that the kids find physical activity fun! Do not make physical activity a punishment, for example having them miss recess or doing laps around the track, as this will take the fun right out of physical activity!

4. Factors Influencing Body Shape and Size

Steps towards a healthy lifestyle include:

- Eating the recommended amount and types of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium).
- Being active every day.

Healthy people come in a variety of shapes and sizes. Children’s weight and shape are influenced by many factors, including heredity and puberty. A Body Mass Index (BMI) is a tool that is not suitable for growing children and teenagers. Instead, health care providers use the BMI-for-Age growth charts to track their progress over time.

4.1 Heredity

It’s important that children understand and appreciate that they are individuals with unique physical characteristics, personality, and natural abilities. Discuss students’ personality and physical traits compared to their siblings, parents and grandparents. Just as eye, hair and skin colour are genetically determined, so too is body weight and shape to a certain extent.
Unfortunately, many children compare themselves to their peers and to unrealistic media images, becoming preoccupied and dissatisfied with their weight and shape. They may begin to restrict their eating in an effort to lose weight and change their body shape. Professionals should help children understand and accept that, to an extent, their bodies may be programmed to be a certain size and shape. By recognizing and appreciating their genetic background, children can learn to be comfortable with their own bodies and develop a good sense of self. Physical activity and healthy eating should be promoted as a way of taking good care of oneself. All students, regardless of size, should be encouraged to enjoy a variety of foods, while practicing moderation; and to participate in regular physical activity for fun and to feel healthy, energetic and fit.

4.2 Hunger and Satiety Cues

All human beings are born with the ability to eat when their body is hungry and stop when they feel full or satisfied. Babies and small children are in tune with these hunger and satiety cues. Unfortunately, as children grow older they may learn to ignore these internal cues due to restrained eating or weight loss dieting. When people are insensitive to their feelings of hunger and satiety they are more likely to engage in disordered eating.

Adults can encourage and respect children’s natural abilities to recognize hunger and fullness. Preadolescents need to eat adequate amounts of food to prepare for rapid growth during puberty. Children require regular snacks to maintain their energy and reach their learning potential. Teachers can discuss with students:

- How they feel when they’re hungry; (i.e., stomach grumbles or hurts, they feel tired, cranky, restless, etc.)
- How they know when they’ve had enough to eat (i.e., feel ‘full’; not interested in eating anymore; want to get up from the table and do something else)
- That it’s ‘normal’ for people to occasionally overeat (e.g., holiday meals)
- Sometimes we eat when we’re not hungry (e.g., for emotional reasons—boredom, sadness; a favourite food or treat is appealing; it’s lunch or dinner ‘time’, etc.)

School Policies

Some schools have developed policies that allow students to eat healthy snacks in class. Policies include statements such as when, where and what type of foods/drinks are allowed. Allowing healthy snacks in class promotes the importance of eating well and listening to the body’s hunger and fullness cues, which helps individuals to achieve and maintain a healthy weight.

4.3 Puberty

Students should be informed that it is healthy and normal for some children to start puberty sooner and others later. During puberty, children undergo a growth spurt, gaining 20% of adult height and 50% of adult weight. For girls, this growth usually begins at about 8 to 10 years of age, while for boys it begins at about 11 to 13 years of age. Some children grow taller before they gain weight and have a thin, long legged appearance; gaining weight or ‘filling out’ as they
grow older. Other children gain weight before they gain height, often developing weight around their middle.

This may cause the child, parent or teacher to worry that the child is ‘getting fat’ which may result in adults encouraging a child to eat less or exercise more. This type of concern can lead to weight preoccupation and restrictive dieting which increases the risk for under-nourishment. Preadolescent children need to eat adequate amounts, follow Canada’s Food Guide, and eat a variety of foods to prepare for the rapid growth of the teen years. If energy needs are not adequately met, physical growth and development can be delayed and possibly even stunted.

**Girls**

Between the ages of 9-16, girls gain on average 2-5 kg. (5-11 lbs.) every year (National Centre for Health Statistics, 2000). Girls require 18-22% body fat in order to begin menstruation (Frisch, 1990) and mature sexually. When talking about puberty and menstruation with their parents and teachers, girls need encouragement that this weight gain is normal. Puberty becomes a particularly difficult time for girls because their natural weight gain moves them away from the ideal thin body shape and size promoted by society and the media. This can negatively affect girls’ self-esteem and body image. Early maturing girls are at further risk for body dissatisfaction (Ohring et al., 2002) because they are more apt to naturally gain weight before later maturing peers, and are more likely to receive sexual teasing and attention when they are still emotionally immature.

**Boys**

Boys may also gain weight around their middle or develop enlarged breasts due to hormone levels and increased body fat during puberty. This can be very embarrassing for boys, especially if asked to remove their shirts in physical education class as a way of differentiating between teams (‘skins’ vs. ‘shirts’). Boys naturally grow bigger, stronger and more muscular during adolescence which follows the cultural ideal for males. However, with the unrealistic standards shown in the media, boys may experience dissatisfaction too, because their bodies are unlikely to develop to the extent they want. Some boys may want to lose weight, while other boys’ concerns may revolve around growing taller and developing muscles to achieve a lean, muscular body.

**5. Body Image**

Body image is part of self-esteem. It’s a person’s perception of their body size, shape, and attractiveness. It also includes a person’s attitudes and feelings about their body and how they believe others see them.

A number of factors influence body image, such as:

- Media (unrealistic expectations for appearance, weight and shape)
- Judgements or comments from adults (parents, relatives, teachers, coaches)
- Attitudes, behaviours and comments from peers
- Physical changes during puberty
- A person’s degree of self-esteem and self-confidence
• Socialization (i.e., girls are supposed to be ‘beautiful’; thinness is important; boys are socialized to be ‘strong’; or ‘macho’)
• Harassment and teasing
• Physical disabilities or illness
• Violence—verbal, physical or sexual abuse

Many influences in today’s society contribute to body image issues. Often children at this age become dissatisfied with how they look. They may dislike certain features such as their nose, teeth and ears, and may think that their peers notice and dislike them too. In addition, increasing numbers of children are dissatisfied with their weight and shape. Research shows that early adolescence is a risky time for developing body image dissatisfaction and disordered eating (McVey, 2003). These behaviours may be triggered by common stressors that young people experience at this age:

• Physical changes of puberty such as gaining weight and increased body fat in girls.
• Social pressures to ‘fit in’ and be accepted (girls are supposed to be ‘beautiful’ and thin; boys are socialized to be ‘strong’ and ‘macho’).
• Teasing and harassment—kids may suffer from rude comments about their weight, body shape, eating habits, race, culture, etc.
• Peer pressure from friends who diet.
• Developing feelings of attraction and wanting to impress.
• Misinterpretation of health messages—‘good’ foods vs. ‘bad’ foods; eating fat is ‘bad’; obesity messages about the dangers of gaining weight and the need to ‘lose weight’ (O’Dea, 2005).
• Influence of the media with its unrealistic expectations for appearance, weight and shape.

5.1 Media and Body Image

Media has a powerful influence on how young people view themselves. The ‘ideal’ look portrayed in the media makes people feel inadequate and unhappy with their bodies. Research suggests that up to 80% of girls and women and 40-60% of males in our society are dissatisfied with their bodies. (The Student Body http://research.aboutkidshealth.ca/thestudentbody/home.asp)

Advertisers go to great lengths to sell products and convince people, especially women, that their bodies are never good enough. Advertising promotes the false belief that everyone can achieve the ‘ideal look’ if they just work hard enough and buy the right products (e.g., cosmetics, hair products, clothes, exercise equipment, supplements and diets).

The female models that are used to sell products are typically tall, thin, young, white, and appear perfect. Male models are lean, muscular and equally ‘perfect’ in their appearance. Youth struggle to achieve a similar look, but the image isn’t even real.
In Reality…

- Specialized photographic techniques and computer technology alter the models’ appearance to create a look that is flawless.
- Body features are enhanced with props, lighting angles and computer techniques.
- Shapes and sizes are altered.
- Blemishes, freckles, lines, wrinkles, skin folds and other unwanted features are edited out.
- Body parts or features from photos of different people are combined to create the ‘perfect’ image.
- ‘Body doubles’ are common in films when body parts of lead actors don’t measure up to the ‘perfect’ image.
- Photo images can be completely computer generated to fit the popular look of the day.

Source: Adapted from Region of Peel website (http://www.region.peel.on.ca/health/commhlth/bodyimg/media.htm)

Media Literacy Can Help

Teaching media literacy can help students recognize that media images are unrealistic and manipulated to create perfection. This understanding can improve students’ body image and decrease their risk of eating problems (O’Dea, 2005). Media literacy has also been shown to help improve self-esteem and reduce unhealthy dieting in young adolescent girls (McVey et al., 2003).

5.2 How Teachers can Promote Positive Body Image

1. Be a positive role model
   - Be aware of the messages you send about your own body and the comments you make about other people's bodies.
   - Refute common stereotypes and prejudices.
   - Celebrate multicultural diversity in beauty, body weight and shape.
   - Discourage youth from weighing themselves.
   - Never reward with food or withhold it as punishment.

2. Help youth celebrate their bodies
   - Focus on what bodies do well rather than what bodies look like.
   - Teach students the joy of being active and to notice how their bodies feel and perform.
   - Focus on positive non-appearance traits (e.g., being caring, friendly, or musical).
   - Stress that there isn’t an ‘ideal’ body shape and that people come in all shapes and sizes.
   - Teach them ways of coping with put downs and negative comments.
   - Explain that their bodies will change and grow, especially during puberty and that weight gain is natural and normal at this time.
3. **Promote a supportive school environment**
   - Weighing students (or using fat calipers) should be done by health professionals and is not generally recommended in a school setting.
   - Discuss media pressures and the ideals of the popular culture.
   - Provide activities that promote an individual’s self-esteem without focusing on appearance.
   - Set standards for respectful behaviour with their peers—no bullying or harassment.
   - Encourage students to eat according to feelings of hunger and fullness.
   - Encourage youth to participate in enjoyable physical activity.

Source: Adapted from the Body Image Coalition of Peel ([www.bodyimagecoalition.org](http://www.bodyimagecoalition.org))

**Ideas for the classroom:**
   - Discuss media pressures and the ideals of the popular culture.
   - Provide activities that promote an individual’s self-esteem without focusing on appearance.
   - Set standards for respectful behaviour with their peers—no bullying or harassment.
   - Encourage students to eat according to their feelings of hunger and fullness.
   - Encourage children to participate in active play.

Source: Adapted from the Body Image Coalition of Peel ([www.bodyimagecoalition.org](http://www.bodyimagecoalition.org))

6. **Self-Esteem**

Self-esteem is the confidence and satisfaction a person has in oneself. It determines how worthwhile, valuable and competent we feel we are. Self-esteem develops from birth through experiences and relationships within the family and continues to be influenced by the significant people in one's life. Supportive parents, teachers, coaches and friends are the key to maintaining and enhancing healthy self-esteem.

Many factors may influence a person’s self-esteem including:
   - Social skills
   - Relationships
   - Talents
   - Intellectual abilities
   - Interests
   - Personal characteristics (e.g., kindness, honesty, humour)
   - Physical appearance

**Tips for Strengthening Self-esteem:**
   - Encourage students, especially girls to develop interests and abilities in a variety of areas, like sports, education, hobbies and clubs. This helps youth recognize that their appearance is only one aspect of themselves.
• Acknowledge and compliment students on their skills, abilities and character.
• Challenge students to think of things they like about themselves beyond physical appearance (e.g., swimming skills, musical talents, friendship skills).
• Help children develop skills for coping with the stresses of growing up, rather than turning to dieting and over-exercise as a way of feeling in control of their lives.
• Teach skills related to friendship, communication and stress management.
• Listen to students concerns and feelings about their changing bodies.
• Encourage students to talk to parents and trusted adults to help sort through problems.

Strong self-esteem helps students cope with stress and anxiety; enables them to be more resilient in difficult times and helps them make healthy choices (O’Dea, 2005). Students who feel good about themselves are less likely to engage in risk-taking behaviours such as disordered eating, smoking, drugs, alcohol and early sexual behaviour.

7. References


National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion. (2000) 2 to 20 years: Girls Stature-for-age and Weight-for-age percentiles. Available at: [http://www.cdc.gov/nchs/data/nhanes/growthcharts/set1clinical/cj41l022.pdf](http://www.cdc.gov/nchs/data/nhanes/growthcharts/set1clinical/cj41l022.pdf)


### 8. Glossary

**Grades 4-6**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additives</td>
<td>Substances added to food for various reasons (e.g., to stop food spoilage, to give flavour or colour). Some common examples include BHT (butylated hydroxytoluene) carrageenan, and cellulose.</td>
</tr>
<tr>
<td>Allergy</td>
<td>An unusual immune reaction to a normally harmless substance, such as some components of food.</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>Disease affecting the heart and/or blood vessels.</td>
</tr>
<tr>
<td>Diet</td>
<td>One’s usual daily food and drink intake.</td>
</tr>
<tr>
<td>Dietitian</td>
<td>A trained expert on the role of food and nutrition in health. Only those individuals who are registered with the College of Dietitians of Ontario can use the titles dietitian or Registered Dietitian.</td>
</tr>
<tr>
<td>Enriched</td>
<td>The addition of vitamins and minerals (that may have been lost during processing) to a food product.</td>
</tr>
<tr>
<td>Everyday Foods</td>
<td>Foods from the four food groups, such as vegetables, fruit, milk, cheese, yogurt, whole grains, fish and legumes. These foods are considered nutrient dense.</td>
</tr>
<tr>
<td>Fat soluble</td>
<td>Something that will dissolve in fat. In food, fat is needed to absorb these nutrients: vitamins A, D, E, K</td>
</tr>
<tr>
<td>Folate</td>
<td>A B vitamin that is necessary for producing and maintaining new cells. This nutrient is especially important during pregnancy. It is also known as folic acid.</td>
</tr>
<tr>
<td>Food Guide Serving</td>
<td>The amount of food in a serving as indicated by Canada’s Food Guide. The recommended number of servings varies by age group and gender.</td>
</tr>
<tr>
<td>Fortified</td>
<td>The addition of specific nutrients (that may be lacking naturally in a food) to a food product.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>---------------------------</td>
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</tr>
<tr>
<td>Hunger cues</td>
<td>The body’s way of telling a person they need to eat. Hunger cues regulate appetite and ensure that people eat enough to meet their energy and nutritional needs. Feelings of hunger may include a growling stomach, irritability, low energy, difficulty concentrating, etc.</td>
</tr>
<tr>
<td>Methylmercury</td>
<td>A highly toxic organic compound of mercury that accumulates in fish and shellfish.</td>
</tr>
<tr>
<td>Nutrient density</td>
<td>A measure of nutrients provided per calorie of food. The addition of a lot of fat or sugar decreases the nutrient density of the food by decreasing the amount of nutrients compared to the number of calories in the food.</td>
</tr>
<tr>
<td>Nutrition</td>
<td>The study of the nutrients in foods and in the body, and the study of human behaviours related to food.</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>Nutritionists are not regulated by law and people do not require any training to call themselves ‘a nutritionist’. Public Health Nutritionists, however, are an exception - they are required to have a Masters Degree and are registered with the College of Dietitians of Ontario.</td>
</tr>
<tr>
<td>Omega-3 fatty acids</td>
<td>A type of fat found in several types of fish and plant oils (e.g., flaxseed, canola, and soybean). There are three types (ALA, DHE, EPA) which are considered essential to health, meaning the body cannot manufacture them.</td>
</tr>
<tr>
<td>Partially hydrogenated</td>
<td>The result of stopping part way through the process of hydrogenating oil so that the product is a semi-solid. This semi-solid consistency is often used by food manufacturers in baked products to increase shelf life. Some of the fatty acids in this process are converted to trans fat.</td>
</tr>
<tr>
<td>Percent Daily Value (%DV)</td>
<td>Listed in the Nutrition Facts table on food labels. It tells you if there is a lot or a little of a nutrient in a food.</td>
</tr>
<tr>
<td>Phytochemicals</td>
<td>Plant chemicals that contain protective, disease-preventing compounds. Phytochemicals are associated with reducing the risk of some chronic diseases including cancer, heart disease and stroke.</td>
</tr>
<tr>
<td>Potassium</td>
<td>A mineral that is important for transmitting nerve impulses and maintaining the fluid balance in the body.</td>
</tr>
<tr>
<td><strong>Salt</strong></td>
<td>A mineral primarily composed of sodium chloride. Salt is involved in transmitting nerve impulses and in regulating the water content of the body. High salt intake can increase the risk of health problems such as high blood pressure.</td>
</tr>
<tr>
<td><strong>Satiety cues</strong></td>
<td>The body’s way of telling people they’ve had enough to eat. Feelings of satisfaction arise not just from the amount of food we eat, but also the taste and pleasure of eating appealing food. Feelings of satisfaction include feeling ‘full’ and no longer interested in eating.</td>
</tr>
<tr>
<td><strong>Saturated fat</strong></td>
<td>Mostly found in foods from animals and tropical plants (i.e., coconut oil, palm oil, cocoa butter). Large amounts of these fats tend to raise the level of LDL or bad cholesterol in blood increasing the risk of cardiovascular disease.</td>
</tr>
<tr>
<td><strong>Self-Esteem</strong></td>
<td>The confidence and satisfaction a person has in themselves; the image one has of oneself compared to what one thinks it should be.</td>
</tr>
<tr>
<td><strong>Sometimes Foods</strong></td>
<td>Foods that are low in nutrients and are often high in calories, fat, sugar and/or salt. These foods are not a part of the four food groups and should be limited, but can be enjoyed at times.</td>
</tr>
<tr>
<td><strong>Trans fat</strong></td>
<td>This fat comes from a vegetable oil that was chemically modified to be more solid. Trans fat is found in partially hydrogenated margarines, deep-fried foods, packaged cookies, crackers, and commercially baked products. Trans fat raises the bad LDL cholesterol, but unlike saturated fat, it also lowers the good HDL cholesterol level increasing the risk of cardiovascular disease.</td>
</tr>
<tr>
<td><strong>Unsaturated fat</strong></td>
<td>A category of fats that includes polyunsaturated and monounsaturated fats, which are mainly found in fish, nuts, seeds and plants oils. These fats may help lower bad LDL blood cholesterol levels</td>
</tr>
</tbody>
</table>
## 9. Healthy Living Grade 4 Activities

### Healthy Eating Overall Expectation

Explain the role of healthy eating practices, physical activity, and heredity as they relate to body shape and size.

<table>
<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| Outline the factors that influence body shape and size (e.g., heredity, diet, exercise). | 1. Growing Me  
2. Growth Chart  
3. Why I Eat  
4. TV Food Commercial Survey (Home Activity)  
5. Work Those Muscles  
6. Body Image Word Search  
7. Follow that Star  
8. Story Writing (Performance Assessment) | • Heredity and puberty growth  
• Positive body image  
• Factors affecting food choices |
| Analyse, over a period of time, their own food selections, including food purchases (e.g., ‘everyday food’ versus ‘sometimes food’) and determine whether or not they are healthy choices. | 9. Canada’s Food Guide in Review  
10. Serving Sizes Demonstration  
11. What’s the Serving Size?  
12. Serving Size Stumpers  
13. Combination Foods Challenge  
14. Personal Food Guide  
15. Everyday Foods and Sometimes Foods  
18. Food Diary: Class Goal | • Eating Well with Canada’s Food Guide: number of servings in each group, serving sizes  
• ‘Everyday food’ and ‘Sometimes food’ |
Specific Expectation

Outline the factors that influence body shape and size (e.g., heredity, diet, exercise).

1. Growing Me

This activity aims to teach students two concepts - how we grow and how heredity influences body shape and size (see Background Information). With their parent/guardian’s permission, students can use pictures of themselves and their family members, from the time that they were born to now, to create a scrap book documenting their growth and their family’s body sizes and shapes. The pictures would be most helpful if the children in them were near other adults so that they can compare their size to the size of someone who has completed their growth. On each page, the students should write their age, and describe how healthy eating and physical activity have helped them grow in comparison to the last picture.

The students can then be asked to describe what is special and unique about the way the various people in the pictures look at the varying ages. The students should also look for similarities in family body shapes and sizes, as well as features such as eye, skin and hair colour. If a class discussion is involved, the students may be asked to think about the fact that everyone has different ideas about what is special or beautiful.

Note: Sensitivity to adopted children is needed for this activity.

2. Growth Chart

With help, have the students measure the size of a class pet (e.g., hamster) or a young plant in the classroom. Have the students regularly track the growth of their pet or plant over a period of time. The measurements can be used to create a bar graph, showing the progression of growth, and the students can calculate the total amount of growth they have seen.

This information can be used to discuss healthy eating and its role in growth and development for plants, animals and people. The class discussion can also encompass the factors influencing body shape and size (see Background Information), by using the plants or pets as examples of natural differences in size and shape.
3. **Why I Eat**

Have students brainstorm factors that influence what they choose to eat (e.g., taste, availability of food, family/culture, friends, TV commercial). Have students brainstorm factors that influence why they eat (e.g., hunger, time of day, habit, mood, appeal of food to senses). Discuss how food is often associated with pleasant events (e.g., parties, celebrations, and holidays).

Have students list their five favourite foods. Then, using the *Why I Eat* activity sheet, have them consider why they eat these and/or other foods.

- Discuss that sometimes we eat when we are not even hungry because we smell food, see other people eating, are bored, or are watching a commercial on TV that makes us think we are hungry and want that particular food.
- Ask them if it is harmful to our health if we eat when we are not hungry.
- Ask why they think it is important to be aware of their personal eating triggers (e.g., being bored, watching TV).

Have students set a goal to be aware of one personal eating trigger other than hunger and select another activity to do instead of eating. Remind students that they should eat if they are hungry.

4. **TV Food Commercial Survey**

Have students brainstorm the different food products they eat which are advertised on television. Discuss how advertising on TV and in other media affect food buying decisions. Discuss the methods used by advertisers to influence children to buy their products. With their families, have students observe TV commercials for different food ads. Using the *TV Food Commercial Survey* activity sheet, have students record the different ads that they and their family members observed.

Have students bring their survey results to class and have a discussion on the advertising methods used by the commercials they observed.

- Ask them to describe their favourite ad and whether or not the ad persuaded them to want to try the food.
- Ask them if they have ever purchased a food product because of a commercial.
- Ask them if commercials confuse them.
- Discuss how television commercials and other advertisements influence them when making food choices.
5. **Work Those Muscles**

In the gym, have the students do each of the activities below for approximately one minute. Some activities may take longer. Afterwards, discuss with the students how each activity made their bodies feel and which muscles they felt were being used.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Muscle Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Wall push-ups</em>:</td>
<td>Arms</td>
</tr>
<tr>
<td>Have students face the wall and stand far enough away so that they can place their palms flat on the wall with elbows slightly bent. The students then bend their elbows and lean toward the wall. Then they straighten their arms and return to the standing position.</td>
<td>Chest</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Paper skate</em>:</td>
<td>Legs</td>
</tr>
<tr>
<td>Provide each student with two pieces of paper. Instruct the students to place the papers on the floor and put one foot on each paper and then skate around the room.</td>
<td>Hip flexors</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Aerobics</em>:</td>
<td>Overall body work out</td>
</tr>
<tr>
<td>Lead the group through a series of jumping jacks, marching, arm circles, shoulder shrugs, etc.</td>
<td>Heart</td>
</tr>
<tr>
<td><em>Human wheel</em>:</td>
<td>Upper and lower body strength building</td>
</tr>
<tr>
<td>Have the students sit on the floor in a circle with their feet in front of them and their hands behind them, palms down. Then ask the students to lift their bodies slightly off the floor and turn around the circle. This resembles a wheel turning in a circle.</td>
<td></td>
</tr>
</tbody>
</table>

6. **Body Image Word Search**

Introduce the concept of body image and growth during puberty (see Background Information). Explain that children’s bodies begin to change as they enter puberty. Explain that many children become dissatisfied with how they look in response to the rapid changes. A typical 9 to 12 year old will report that he or she is too short, too tall, too skinny or too fat. Often certain body parts they especially dislike are identified. Have the students complete the *Body Image Word Search* activity sheet. Go over the activity sheet with the students using their questions and comments to stimulate discussion.
7. **Follow That Star**

Have a classroom discussion about differences in body size and shape, emphasizing:
- that no two individuals are exactly the same;
- that our uniqueness means that we all have complementary abilities;
- that they are all changing at their own rate as they grow, and to change in a healthy way, they need to eat well and enjoy active play;
- that everyone has things they like about themselves and things they don't like as much;
- that under no circumstances is it acceptable to tease someone about the way they look; and
- that everyone has differences in what they think of as beautiful.

Have students complete the *Follow That Star* activity sheet. This activity encourages students to think of words that describe themselves and to highlight qualities that are most important to them.

8. **Story Writing (Performance Assessment)**

Have students write a story about the factors that influence their body shape and size and other physical characteristics such as eye and hair colour (i.e., heredity, eating habits, physical activity and growth rate). Suggest that they can refer to specific physical qualities they share with parents or siblings, such as hair colour or height. Encourage them to write about how eating well makes them feel energetic, but does not affect how they look as much.

**Note:** Sensitivity to adopted children is needed for this activity.
Specific Expectation

Analyse, over a period of time, their own food selections, including food purchases (e.g., ‘everyday food’ versus ‘sometimes food’) and determine whether or not they are healthy choices.

9. Canada's Food Guide In Review

Hand out copies of *Eating Well with Canada's Food Guide* to review the food groups.
- Discuss the number of servings recommended for each food group.
- Ask the students why the arcs of the rainbow on the Food Guide are different sizes.
- Ask students to give some examples of ‘sometimes’ foods. Introduce the concept of moderation, ‘everyday’ vs. ‘sometimes’ and explain why there is no recommended number of servings for ‘sometimes’ foods.

10. Serving Sizes Demonstration

Bring in some sample foods to provide a visual representation of Food Guide Serving sizes (see Background Information). Invite students to bring in sample foods commonly used at home. If you are unable to bring in sample foods, try using common household items to represent foods (see below).

Have students guess the number of servings for each quantity of food and then have them check their answers with Canada's Food Guide.

Sample Food Ideas:

- 1 medium apple, banana, orange  
  1 serving of Vegetables and Fruit
- 1 juice box (250 mL)  
  2 servings of Vegetables and Fruit
- 1 bagel  
  2 servings of Grain Products
- 500 mL pasta (cooked)  
  4 servings of Grain Products
- 1 small yogurt (175 mL)  
  1 serving of Milk and Alternatives
- 2 processed cheese slices  
  1 serving of Milk and Alternatives
- 175 mL beans/lentils (cooked)  
  1 serving of Meat and Alternatives

Sample Household Items that Represent Food Serving Sizes:

(Note: you can also bring in measuring cups to demonstrate serving sizes)

**Vegetables and Fruit:**

- 125 mL of bingo chips  
  represents 1 serving of cooked vegetables
- Hard ball  
  represents 1 medium sized piece of fruit
- Light bulb  
  represents ½ cup fresh, frozen or canned vegetables
- Golf ball  
  represents 30 ml (2 tbsp) of dried fruit
Grain Products:
- 32 pieces of string 32 cm long represents 1 serving of cooked spaghetti
- Light bulb represents ½ cup of pasta
- Hockey puck represents ½ bagel
- Tennis ball represents ¼ cup cereal

Milk and Alternatives:
- Carton of milk – 250ml represents 1 serving of milk
- Yogurt container – ¾ cup represents 1 serving of yogurt
- 3 dominos represents 50g (2oz) of cheese

Meat and Alternatives:
- Deck of cards represents 75g (2.5 oz) cooked meat
- Golf ball represents 30ml (2 tbsp) peanut/nut butter

11. What’s The Serving Size?
Using Canada’s Food Guide, have students complete the *What’s the Serving Size?* activity sheet. Remind the students that there are no recommended numbers of servings for ‘sometimes foods’ (see Background Information). You may wish to work on the first couple of foods as a class in order to help with students’ understanding of this concept. Then, as a class, take up the answers using the answer key.

12. Serving Size Stumpers
Using Canada's Food Guide, have students complete the *Serving Size Stumpers* activity sheet.

*Answers to Serving Size Stumpers Activity Sheet:*
1. 3 servings of Meat and Alternatives
2. 3 servings of Milk and Alternatives
3. 16 servings of Grain Products
4. 9 servings of Vegetables and Fruit

13. Combination Foods Challenge
Review the concept of combination foods or mixed dishes (see Background Information) as foods that contain ingredients from more than one food group. Examples include steamed BBQ pork buns, beef patty, samosas, moussaka, stew, sandwiches and burritos. Ask them what their favourite combination foods are. Help students figure out which food groups are represented in their favourite combination foods.
Using pizza as an example, have the class generate as many topping ideas as they can. Have the class create a pizza recipe that consists of the following numbers of servings from each food group:

- 2 to 4 servings Vegetables and Fruit;
- 1 serving Milk and Alternatives; and
- 1 serving Meat and Alternatives.

Explore the number of different pizzas the class can create using these criteria. Record them all on the blackboard. Create names for each original pizza recipe. Which is the class favourite? Consider ordering or making this favourite pizza for a pizza lunch and serve with milk or juice and veggie sticks or fruit.

14. Personal Food Guide

Using the Personal Food Guide activity sheet, have students design their own personal food guide with illustrations and labels of their favourite foods from each food group. Each arc should display the number of servings for children aged 9-13 years for each food group:

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

Note: Students may need assistance in figuring out which food groups are represented in their favourite combination foods.

15. Everyday Foods And Sometimes Foods

Discuss the concept of ‘everyday foods’ and ‘sometimes foods’ (see Background Information). Have the students make a list of foods they ate during the meal before. Let the class identify the food groups to which the foods belong as well as which foods are ‘everyday foods’ and which are ‘sometimes foods’.


Divide students into groups and have them create a TV commercial that advertises a food using the ‘everyday foods’ and ‘sometimes foods’ concept. Discuss how these foods fit into healthy eating. Have students role-play their commercial for the class and perhaps for younger classes within the school.


Using the Food Diary: What Did I Eat Yesterday? activity sheet, have each student complete a one-day food record. Begin by asking them to list everything they ate and drank the previous day in the first column. Then, next to each food item, under the appropriate food group, have them record the number of servings they had. Ask the students to indicate ‘sometimes foods’ by check
marks only. Finally, have the students total and record the number of servings for each of the four food groups. Help students figure out combination foods that they have eaten using the following steps:

1. List the main food items.
2. Identify the food groups represented by these foods.
3. Estimate how much of each food item was eaten.
4. Check Canada’s Food Guide to see approximately how many servings each food item provides.

Example:

*Spaghetti and Meatballs:*

<table>
<thead>
<tr>
<th>Food</th>
<th>Food Group</th>
<th>Quantity</th>
<th>Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td>spaghetti</td>
<td>Grain Products</td>
<td>250 mL</td>
<td>2</td>
</tr>
<tr>
<td>tomato sauce</td>
<td>Vegetables and Fruit</td>
<td>125 mL</td>
<td>1</td>
</tr>
<tr>
<td>meatballs</td>
<td>Meat and Alternatives</td>
<td>5 small</td>
<td>1</td>
</tr>
</tbody>
</table>

The following are suggested healthy eating discussion questions:

- Did you eat the recommended number of servings from all four food groups?
- Did you eat a variety of foods from each of the four food groups?
- Did you have three meals?
- Did your snack choices represent foods from one or more of the food groups? (See ‘Healthy Snacks’ in the background section)
- Were your food choices ‘everyday foods’ most of the time?
- Were your food choices typical for you? If not, why not (e.g., went to a birthday party, went out for dinner). Mention that the food record is for one day only and that this might not be a good measure of the students’ overall eating habits.

18. **Food Diary: Class Goal**

As a class, review students' food diaries and determine the class average for the number of servings from each of the four food groups. For food groups with a low class average compared to the recommended number of daily servings, make a class goal to increase the number of foods eaten from those food groups.

Example:

*Class Result:* the average number of servings of Vegetables and Fruit eaten each day is three. *Class Goal:* to increase the class average to six servings of Vegetables and Fruit eaten each day.

Ask students to brainstorm how to achieve this goal such as bringing a piece of fruit for recess or including vegetable sticks in their packed lunch. As a class, set a future date when the class can review its progress.
Why I Eat

People eat for many reasons. You may eat because you are hungry, because the food looks or smells good, because you are bored, or because you see other people eating. Read each statement below and check the box that shows the reasons you eat.

<table>
<thead>
<tr>
<th>I eat when I’m:</th>
<th>Often</th>
<th>Sometimes</th>
<th>Almost Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>hungry</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>bored</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>with my friends</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>happy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>worried</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>sad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>lonely</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>angry</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>tired</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>treated unfairly</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>told it’s time to eat</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>watching TV</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
TV Food Commercial Survey

Saturday morning is one good time to do this activity. Using the table below, list three foods advertised in commercials that you see. Place check marks beside the advertising methods used to get you to buy these foods.

<table>
<thead>
<tr>
<th>Advertising Method</th>
<th>e.g., Cheerios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free prize or gift</td>
<td></td>
</tr>
<tr>
<td>Win a prize</td>
<td>✓</td>
</tr>
<tr>
<td>Famous person/testimonial</td>
<td></td>
</tr>
<tr>
<td>Humour</td>
<td></td>
</tr>
<tr>
<td>New or improved</td>
<td></td>
</tr>
<tr>
<td>Extra for same price</td>
<td></td>
</tr>
<tr>
<td>Jingle</td>
<td></td>
</tr>
<tr>
<td>Good for you</td>
<td>✓</td>
</tr>
<tr>
<td>Fun to eat</td>
<td>✓</td>
</tr>
<tr>
<td>Nice packaging</td>
<td></td>
</tr>
<tr>
<td>You’ll be happy</td>
<td></td>
</tr>
<tr>
<td>You’ll be popular</td>
<td></td>
</tr>
<tr>
<td>Other advertising methods:</td>
<td></td>
</tr>
</tbody>
</table>

Which of these advertising methods makes you want to eat these foods?

__________________________

Why? ______________________

__________________________

__________________________

Discover Healthy Eating! A Teacher’s Resource for Grades 1 – 6, 2009

Activities, Grade 4
Body Image Word Search

Fill in the blanks with the words below.

- body image
- later
- taught
- calories
- rapidly
- thin
- dissatisfied
- stunt
- weight loss
- heavier

1. Between the ages of 9 and 12, your body begins growing very _____________.
2. How we think we look and how we think others see us is called _________________.
3. Some children may be _______________ with the way certain parts of their body look.
4. Even at a young age, children are __________ to like body shapes and sizes they see in the media.
5. In other countries, people may prefer shorter and ____________ body shapes than in Canada.
6. Movie stars and magazine models often have body shapes that are too ______ for good health.
7. The growth spurt for boys usually begins __________ than the growth spurt for girls.
8. Children need extra energy from food, known as ___________, to help them grow.
9. If children don’t eat enough food from the four food groups, they may _______ their growth.
10. It is unhealthy for people, especially children and teens, to go on _______________ diets.

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

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

Adapted from Healthy Growth: Nutrition Lessons for 9 - 12 year old children, Iowa State University.
Body Image Word Search

Answer Key

Fill in the blanks with the words below.

body image  later  taught  calories  rapidly
thin  dissatisfied  stunt  weight loss  heavier

1. Between the ages of 9 and 12, your body begins growing very rapidly.
2. How we think we look and how we think others see us is called body image.
3. Some children may be dissatisfied with the way certain parts of their body look.
4. Even at a young age, children are taught to like body shapes and sizes they see in the media.
5. In other countries, people may prefer shorter and heavier body shapes than in Canada.
6. Movie stars and magazine models often have body shapes that are too thin for good health.
7. The growth spurt for boys usually begins later than the growth spurt for girls.
8. Children need extra energy from food, known as calories, to help them grow.
9. If children don’t eat enough food from the four food groups, they may stunt their growth.
10. It is unhealthy for people, especially children and teens, to go on weight loss diets.

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

Adapted from Healthy Growth: Nutrition Lessons for 9 - 12 year old children, Iowa State University.
Follow that Star!

Write nine words that describe you:

________________________  ______________________  __________________

________________________  ______________________  __________________

________________________  ______________________  __________________

Put a star beside the words that are most important to you.

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

________________________________________________________________________

________________________________________________________________________

List three of your good qualities (not physical) - things you wouldn’t change, even if you could:

1. ________________________

2. ________________________

3. ________________________
What's the Serving Size?

Using *Canada's Food Guide*, determine the food group to which each food belongs. Then determine the amount of one serving for each of the foods.

<table>
<thead>
<tr>
<th>Food</th>
<th>Food Group</th>
<th>One Serving Equals</th>
</tr>
</thead>
<tbody>
<tr>
<td>bread</td>
<td>e.g., Grain Products</td>
<td>e.g. slice</td>
</tr>
<tr>
<td>carrot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>peanut butter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>corn flakes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>chocolate milk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>salad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pita bread</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cheese slices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>canned tuna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cantaloupe pieces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apple juice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lentils</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eggs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# What's the Serving Size?

**Answer Key**

Using *Canada's Food Guide*, determine the food group to which each food belongs. Then, determine the amount of one serving for each of the foods.

<table>
<thead>
<tr>
<th>Food</th>
<th>Food Group</th>
<th>One Serving Equals</th>
</tr>
</thead>
<tbody>
<tr>
<td>bread</td>
<td>Grain Products</td>
<td>one slice</td>
</tr>
<tr>
<td>carrot</td>
<td>Vegetables &amp; Fruit</td>
<td>one medium</td>
</tr>
<tr>
<td>peanut butter</td>
<td>Meat &amp; Alternatives</td>
<td>30 mL or 2 tbsp</td>
</tr>
<tr>
<td>corn flakes</td>
<td>Grain Products</td>
<td>30 grams</td>
</tr>
<tr>
<td>chocolate milk</td>
<td>Milk &amp; Alternatives</td>
<td>250 mL or 1 cup</td>
</tr>
<tr>
<td>salad</td>
<td>Vegetables &amp; Fruit</td>
<td>250 mL or 1 cup</td>
</tr>
<tr>
<td>pita bread</td>
<td>Grain Products</td>
<td>1/2 cup</td>
</tr>
<tr>
<td>cheese slices</td>
<td>Milk &amp; Alternatives</td>
<td>2 slices or 50 grams</td>
</tr>
<tr>
<td>canned tuna</td>
<td>Meat &amp; Alternatives</td>
<td>1/3–2/3 can or 50–100 grams</td>
</tr>
<tr>
<td>pear</td>
<td>Vegetables &amp; Fruit</td>
<td>one medium</td>
</tr>
<tr>
<td>cantaloupe pieces</td>
<td>Vegetables &amp; Fruit</td>
<td>125 mL or 1/2 cup</td>
</tr>
<tr>
<td>apple juice</td>
<td>Vegetables &amp; Fruit</td>
<td>125 mL or 1/2 cup</td>
</tr>
<tr>
<td>lentils</td>
<td>Meat &amp; Alternatives</td>
<td>125–150 mL or 1/2–1 cup</td>
</tr>
<tr>
<td>rice</td>
<td>Grain Products</td>
<td>125 mL or 1/2 cup  (250 mL or 1 cup=2 servings)</td>
</tr>
<tr>
<td>eggs</td>
<td>Meat &amp; Alternatives</td>
<td>1–2</td>
</tr>
</tbody>
</table>
Serving Size Stumpers

1. If 60 mL of seeds equals one serving of Meat & Alternatives, how many servings of pumpkin seeds does the class have if they collect 180 mL when they carve their Jack-O-Lantern for Hallowe’en?

2. Pat counted all the food she ate in one day that contained milk: 125 mL milk on breakfast cereal, 250 mL milk in cream of tomato soup, a 250 mL carton of milk, and 125 mL chocolate pudding made with milk. How many servings of Milk & Alternatives did Pat have?

3. Raj won the pasta-eating contest at school when he ate 2 litres of spaghetti at one sitting. How many servings of Grain Products did Raj eat?

4. Lily wants to count the number of servings of Vegetables & Fruit she ate yesterday. She ate 125 mL orange juice, 1 banana, 10 strawberries (about 250 mL), 250 mL tossed salad, 1 baked potato, 125 mL broccoli and 250 mL fruit salad. How many servings did she have?
**Food Diary: What Did I Eat Yesterday?**

In the first column, list the foods you ate yesterday. For each food item, write the number of servings from each food group. Use a check mark (✓) to show food items in the “Sometimes” Foods category. Total the number of servings of each food group.

<table>
<thead>
<tr>
<th>Meals or Snacks</th>
<th>Vegetables and Fruit</th>
<th>Grain Products</th>
<th>Milk and Alternatives</th>
<th>Meat and Alternatives</th>
<th>“Sometimes” Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morning Snack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon Snack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening Snack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Servings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No total</td>
</tr>
</tbody>
</table>
## 10. Healthy Living Grade 5 Activities

### Healthy Eating Overall Expectation
Analyze information that has an impact on healthy eating practices (e.g., food labels, food guides, care-of teeth brochures)

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<td>• Calories</td>
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<td>2. Six Kinds of Nutrients (Performance Assessment)</td>
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<td>3. Input/Output</td>
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<td>Identify critical content information on food labels (e.g., ingredients, Calories, additives, fat content).</td>
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<td>Explain how changes in our bodies sometimes affect our eating habits (e.g., increased appetite during growth spurts).</td>
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<td>---------------------------------------------------------------</td>
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<td>17. Understanding Growth (Performance Assessment)</td>
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<td>18. How Do I Look?</td>
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<tr>
<td>• Increased energy needs due to age, body size, growth, activity, etc.</td>
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</table>
Specific Expectation

**Explain the purpose and function of calories and the major food nutrients.**

1. **Canada’s Food Guide Review**

   Explain to students that Canada’s Food Guide is used for planning a balanced diet (see Background Information). Since each food group provides different nutrients, it is important to eat a variety of foods from all of the food groups daily. For more information, refer to the booklet *Eating Well with Canada’s Food Guide-A Resource Guide for Educators and Communicators.*

2. **Six Kinds Of Nutrients** (Performance Assessment)

   Write the word “NUTRIENT” on the blackboard and ask students to discuss what they think it means. Ask one student to find the definition in the dictionary. Distribute the *Six Kinds of Nutrients* activity sheet. Have students complete the handout. Discuss the six kinds of nutrients that are important for growth and health: carbohydrates, fat, protein, vitamins, minerals and water. Discuss their functions and food sources (see Background Information).

3. **Input/Output**

   Food provides our bodies with nutrients and energy. Discuss the importance of energy provided by foods - energy enables our bodies to walk, run, swim, and do all of the other things that we do. Explain that energy is measured in what is known as calories (see Background Information).

   Ask students to collect pictures from magazines and newspapers that demonstrate the energy ‘input/output’ concept. This involves demonstrating the fact that energy from foods is needed for our bodies to be able to perform daily functions and activities. For example, the input part could show different types of foods while the output part could show things like sleeping, playing, learning, etc.

4. **Nutrient Scavenger Hunt**

   At home, have students look for foods from the four food groups that are sources of the six kinds of nutrients: carbohydrate, fat, protein, vitamins, minerals, and water. Have students use Canada’s Food Guide and the *Six Kinds of Nutrients* activity sheet as a guide. Encourage students to be unique and to choose foods that are not listed on the handout. Have students report their findings back to the class. Some information they can report on are:
   - name of the food
   - name of the food group
   - what kind of nutrient(s) the food contains
   - why the food is important for their body
   - why the student chose this food
5. **Healthy Eating Wheel Of Fortune**

Divide the students into four teams representing each of the four food groups. Have team members come up with names of foods from their food group and corresponding clues (e.g., this food is green; this food contains various vitamins and minerals; this food can be found fresh or frozen, but not usually canned – answer: broccoli). Each team must develop clues about food groups and nutrients and write the food names and clues on index cards. See some examples of clues on the *Healthy Eating Wheel of Fortune* clue sheet.

One member from each team is chosen to give the clues and another to reveal the letters on the blackboard. Each team takes turns leading the other teams through the game. A member of the leading team reads out their clue first. The remaining three teams take turns rolling a die to guess one letter at a time. If the letter is guessed correctly, that letter is revealed and the team receives the point value on the die. The team then receives one chance to guess the mystery word. If the letter guessed is incorrect, the wrong letter is written at the top of the blackboard and no points are awarded. Play proceeds to the next team even after a correct letter guess. Once the word is guessed, another food group team takes the lead and begins play with one of their words and clues. The game ends when all food group teams have used their clues.

6. **Where’s The Water?**

Cut a vegetable (e.g., cucumber, tomato) and observe the fluid or water that leaves the vegetable. Place the raw vegetable in a glass jar and seal it with plastic wrap. Leave for 1-2 days and observe the water droplets inside the jar. Discuss where the water came from.

Emphasize to the students that most people don’t drink enough water. Ask students to bring reusable water bottles from home. Have students design and attach labels that clearly indicate one health-related benefit of drinking water, e.g., replenishes lost fluids, quenches my thirst, etc.

7. **Experiment: Testing For Fat**

Set up a fat finder lab in the classroom. Encourage class and student participation where possible. For example, assign students to record the results and to read the instructions. You may want to make a copy of the *Experiment: Testing for Fat* direction sheet for each student to follow as the assigned student/teacher completes the experiment. (See the Background Information for further information about the different types of fat).

8. **Fibre Find Activity**

Discuss with students the importance of eating foods high in dietary fibre (see the Background Information). Divide the students into small groups. Copy and distribute the *Fibre Find* activity sheet to each group.

**Answers to Fibre Find Activities:**

Activity A: strawberries, baked potato, samosas, popcorn, oatmeal, peas, mango, broccoli, orange, raisins, carrot, red beans

Activity B: Ask a student from each group to share their additional Fibre Finds with the class. Write each item on the blackboard. For each food item, ask the class if they agree or disagree with the food being classed as a Fibre Find.
Specific Expectation

Identify critical content information on food labels (e.g., ingredients, calories, additives, fat content).

9. What Do Food Labels Tell Us?

The term ‘food label’ refers to all the information on a food package. Present the Sample Food Package as an overhead or as a handout. Discuss the information presented on a typical food package and explain the meaning of terms like the Best Before Date, Ingredient List, etc. Also, explain that a food package may provide nutrition information in three different places – an Ingredient List; a Nutrition Facts table; and in a Nutrition or Health Claim (See Background Information).

Cereal boxes make excellent samples to use when discussing food labels. Ask students to bring in empty cereal boxes from home. Distribute copies of the Food Labels activity sheet and ask students to find the relevant information to complete the activity.

10. A Look At Labels (Performance Assessment)

Distribute copies of the Nutrition Facts table. Use this handout to note key information points about the listed terms to the students (see Background Information).

Distribute food packages collected from a variety of different food products. Have the students find the Nutrition Facts table. Discuss how the information can be used when making food choices. Students, in pairs, can exchange similar food packages and compare the nutrition information presented (e.g., two boxes of crackers).

Learning how to read food labels can help students make healthier food choices. Distribute copies of the A Look at Labels activity sheet. After the students have completed it, take up the questions and discuss.

11. Nutrition Label Match Game

Make enough copies of the Nutrition Label Match Game master sheets to supply small teams (four to six students) with one copy each. Cut each sheet along the lines so that each term and definition is on a separate piece of paper. Divide the class into small teams, each team sitting around a table or a group of desks together. Place one set of mixed up terms and definitions in the centre of each team. Instruct the students to match each term with the correct definition as quickly as possible. The first team that completes the matching will read out their matching choices. If they have a wrong match another team has the opportunity to state the correct answer and continue with the answers.
Specific Expectation

Describe the influence of the media on body image (e.g., shape and size).

12. Your Secret Recipe

Distribute the Your Secret Recipe activity sheets. Explain to the students that they will be creating a recipe on ‘how to feel good about yourself’. See the sample that follows. Divide students into small groups to develop a secret recipe together. Have each group share its secret recipe with the rest of the class. Using one ingredient and method step from each group, have the students create a secret recipe for the entire class.

Name of Recipe: Feeling Great

Ingredients: 5 good belly laughs
3 cups of spending time with my family
1 afternoon at the park shared with friends
1 good deed to make someone else feel good
5 positive thoughts about me (e.g., I am a good listener, I like to draw and I am a good helper)

Method:
1. Enjoy 1 afternoon at the park shared with friends and add 5 good belly laughs.
2. Combine 3 cups of spending time with my family with 1 good deed to make someone else feel good.
3. Finish with 5 positive thoughts about me.
4. Add more good belly laughs to taste.
5. Serve with a smile.

13. Let’s Have A Look (Performance Assessment)

Read the definition of body image:
Body image is a person’s perception of their body size, shape, and attractiveness. It also includes a person’s attitudes and feelings about their body and how they think others see them. Body image is a part of self-esteem

As a class, have students brainstorm their own definitions of positive and/or negative body images.

Hand out a copy of the Let's Have a Look activity sheet to each student. Have each student use magazines to identify products or ads that relate to the questions listed. Discuss the students' discoveries with the class. Some other questions and points to consider:
• Which products or ads made students feel good about themselves? Which ones did not? Stress the importance of doing, feeling, and saying things that make one feel good about oneself.

• How are women portrayed in commercial ads? Remind students that the people seen in magazines all seem tall, thin or muscular and fashionable, but this is not a realistic goal. In most cases, they are not at a healthy weight for their height – they do not represent an average body shape or size (see Background Information).

14. Ads And Us

Have a class discussion about the influence of advertising in our lives (see Background Information). How do marketing and advertising techniques and strategies affect what we buy, what we eat and how we think we should look? Distribute the Ads and Us activity sheet. This can be an in-class or take-home activity.

15. A Closer Look At Magazines

Ask students to bring in magazines from home. Have each student go through a magazine and complete the Closer Look At Magazines activity sheet. Afterwards, discuss the questions in small groups or as a class.

16. Magazine Ad Analysis

After completing the Closer Look At Magazines activity, have students choose one advertisement that they like from their magazine. Distribute copies of the Magazine Ad Analysis activity sheet for students to complete in class or as a take home activity.
Specific Expectation

Explain how changes in our bodies sometimes affect our eating habits (e.g., increased appetite during growth spurts).

17. Understanding Growth (Performance Assessment)

Have a class discussion about the normal growth and body changes that occur in the pre-adolescent and adolescent years (see Background Information). It is essential for pre-adolescent children and adolescents to eat adequate amounts of a variety of foods to prepare for the rapid growth that they are, or soon will be, experiencing.

Distribute copies of the Understanding Growth crossword puzzle and ask students to complete the puzzles independently. Go over the completed puzzles as a class and encourage students to ask about information that they do not know.

18. How Do I Look?

Distribute the How Do I Look? question sheet and ask the students to answer the questions. Use the questions on the sheet to stimulate discussion with students. Some sample discussion points are listed below.

1. If boys and girls your age think they are getting fat, they should go on a weight loss diet.
   FALSE – It is not appropriate for growing children and teens to follow a weight loss diet. The best approach is a healthy eating, active living, and non-dieting approach throughout the life span.

2. Most girls and boys your age should have the same body shapes as magazine models.
   FALSE – Today’s advertisers go to huge lengths to sell products and to convince people that their bodies are never good enough. Female models are typically tall, thin, young, white and appear ‘perfect’. More and more, male models are lean, very muscular and equally ‘perfect’ in their appearance. Nobody looks that ‘perfect’ naturally - not even the models themselves.

3. People all over the world prefer to be tall and thin.
   FALSE – In Canada, many people prefer tall, thin body shapes for women and tall, muscular shapes for men. However, in other countries people may prefer to be shorter, heavier, or less muscular. A tall, muscular man may be seen as handsome in Canada, but clumsy and bulky in another country.
4. **It is healthy for boys and girls your age to eat when they are hungry.**
   TRUE – Because you are beginning to grow rapidly, your body needs more energy than when you were younger. You get this energy from the calories in the food that you eat. If you do not eat enough calories, it may slow or even stop your growth.

5. **Some boys and girls your age are uncomfortable with the way some parts of their bodies’ look.**
   TRUE – During the childhood and teenage years, each person's body grows differently. This is because your body is like a computer that runs on its own growth program. You inherited most of your growth program from your parents, like your height, body shape, eye and hair colour. Also, girls and boys tend to have different growth programs. The rapid rate of growth that changes us from children into adults is called a growth spurt. The growth spurt for girls begins around age 9 and for boys around age 12. It is normal to be uncomfortable during such a rapid time of body changes.
### Six Kinds of Nutrients

Food is made up of nutrients (NOO-tree-ents) which are needed to help people grow, be active, and stay healthy. Below, you see the names of the kinds of nutrients. The picture shows foods that contain that kind of nutrient. Decide what food group each food belongs to. Put its abbreviation on the line under the food.

<table>
<thead>
<tr>
<th>FOOD GROUP</th>
<th>ABBREVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables &amp; Fruit</td>
<td>VF</td>
</tr>
<tr>
<td>Grain Products</td>
<td>GP</td>
</tr>
<tr>
<td>Milk &amp; Alternatives</td>
<td>MI</td>
</tr>
<tr>
<td>Meat &amp; Alternatives</td>
<td>MA</td>
</tr>
</tbody>
</table>

#### Carbohydrates
(kahr-buh-HYE-drayts)  
Carbohydrates give the body energy.

#### Water
Much of the body is water. It carries the other nutrients to all parts of the body. It carries waste from all parts of the body.

#### Proteins
(PROH-tee-ins)  
Proteins help the body build and take care of all its parts- muscles, bones, nerves, skin and blood. Proteins can also supply energy.

#### Vitamins
Vitamins do many things to help the body grow and stay healthy.

#### Fats
Fats supply lots of energy-more than twice as much as the same weight in proteins or carbohydrates.

#### Minerals
Minerals help the body in many ways. They help build bones and teeth. Minerals help muscles work the way they should.
Use these sample clues to begin your game. Add more of your own.

**Vegetables & Fruits**

- This food comes in small bite size pieces. 
  - Brussels sprouts
- This food is green. 
  - Brussels sprouts
- This food is round. 
  - Brussels sprouts
- This food has a yellow skin. 
  - Lemon
- This food grows in warm places like Florida. 
  - Brussels sprouts
- This food is a source of vitamins. 
  - Brussels sprouts
- This food comes in many forms such as 
  - Pumpernickel, pita and naan.
- This food is a great source of carbohydrate. 
  - Bread

**Grain Products**

- This food is a source of carbohydrate. 
  - Rice
- This food is often eaten with chopsticks. 
  - Rice
- This food is in the Grain Products food group. 
  - Rice
- This food is a source of protein. 
  - Cheese
- This food can be a variety of colours. 
  - Cheese
- This food provides calcium. 
  - Cheese

**Milk & Alternatives**

- This food comes in a variety of flavours. 
  - Yogurt
- This food can be part of a healthy breakfast. 
  - Yogurt
- This food is a source of calcium. 
  - Yogurt
- This food is gooey. 
  - Peanut butter
- This food tastes great spread on bread. 
  - Peanut butter
- This food is a source of protein. 
  - Peanut butter

**Meat & Alternatives**

- This food is a source of protein. 
  - Tofu
- This food can be stir-fried. 
  - Tofu
- This food can be used as cheese. 
  - Tofu
EXPERIMENT: TESTING FOR FAT

Materials

• Food samples (e.g. apple, orange, bread, cake, donut, potato, breakfast cereal, rice, celery, butter, cheese, corn chips)
• Square pieces of brown paper from paper lunch bags
• Baking sheet for a toaster oven
• Toaster oven

Method

1. Rub the food sample(s) on a brown piece of paper. Let paper dry out.
2. Hold the paper up to the light. Make an observation.
3. To test more than one food at a time, line a baking sheet with brown paper and place small samples of food on the tray. Place baking sheet in the direct sun or toaster oven to warm gently. Monitor
4. Check the brown paper to see which foods have left a grease spot. Make an observation.

Discussion

Discuss observations. If you saw light through the paper after it has dried, then the food rubbed or heated on that paper contains fat. Determine the types of foods that contain fat. Distinguish fats from animal sources versus fats from plant sources.
Fibre Find

Fibre Find Tips

• only foods that come from plants have fibre
• skins and peels on fruits and vegetables are high in fibre
• peas, beans, lentils and leafy greens are high in fibre
• cereals, oatmeal, brown rice and whole grains are high in fibre

A. In your group, decide which of the following foods would be a Fibre Find. Use the Fibre Find Tips to help you.

Circle your Fibre Finds …

strawberries  hamburger  cheese  baked potato
chicken  samosa  popcorn  oatmeal
peas  mango  broccoli  orange
fruit juice  milk  raisins  turkey
potato chips  eggs  steak  yogurt
peanut butter  doughnut  carrot  red beans

B. Ask each person in the group to name another Fibre Find other than the foods already circled.

Write down these Fibre Finds:

1. 
2. 
3. 
4. 

Name: ________________________________
Sample food package

Diet-related health claim:
A healthy diet low in saturated and trans fat may reduce the risk of heart disease. Frosted Wheat Squares are free of saturated and trans fats.

Nutrition Facts
Per 30 g

<table>
<thead>
<tr>
<th>Amount</th>
<th>% Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories 116</td>
<td></td>
</tr>
<tr>
<td>Fat 2.5 g</td>
<td>5%</td>
</tr>
<tr>
<td>Saturated 0 g</td>
<td>0%</td>
</tr>
<tr>
<td>+ Trans 0 g</td>
<td></td>
</tr>
<tr>
<td>Cholesterol 0 mg</td>
<td></td>
</tr>
<tr>
<td>Sodium 0 mg</td>
<td>0%</td>
</tr>
<tr>
<td>Carbohydrate 24 g</td>
<td>8%</td>
</tr>
<tr>
<td>Fibre 5.2 g</td>
<td>20%</td>
</tr>
<tr>
<td>Sugars 6.5 g</td>
<td></td>
</tr>
<tr>
<td>Protein 2.1 g</td>
<td></td>
</tr>
<tr>
<td>Vitamin A 0%</td>
<td>Vitamin C 0%</td>
</tr>
<tr>
<td>Calcium 0%</td>
<td>Iron 2%</td>
</tr>
</tbody>
</table>

Ingredient List: Whole wheat, sugar, malt syrup, salt, reduced iron, niacinamide, thiamine, folic acid.
## Nutrition Facts Table

**Nutrition Facts**

Per 125 mL (87 g)

<table>
<thead>
<tr>
<th>Amount</th>
<th>% Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calories</strong></td>
<td>80</td>
</tr>
<tr>
<td><strong>Fat</strong></td>
<td>0.5 g</td>
</tr>
<tr>
<td>Saturated</td>
<td>0 g</td>
</tr>
<tr>
<td>+ Trans</td>
<td>0 g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>0 mg</td>
</tr>
<tr>
<td><strong>Sodium</strong></td>
<td>0 mg</td>
</tr>
<tr>
<td><strong>Carbohydrate</strong></td>
<td>18 g</td>
</tr>
<tr>
<td>Fibre</td>
<td>2 g</td>
</tr>
<tr>
<td>Sugars</td>
<td>2 g</td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>3 g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>2 %</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>10 %</td>
</tr>
<tr>
<td>Calcium</td>
<td>0 %</td>
</tr>
<tr>
<td>Iron</td>
<td>2 %</td>
</tr>
</tbody>
</table>

A Look at Labels

The nutrition information on food labels helps you to choose healthier foods by allowing you to compare products more easily. Look at the yogurt labels below and compare their nutritional content.

Label A: Yogurt

Label B: Yogurt


1. If you eat one serving of Label A yogurt, how many calories would you be having? ______

2. How many servings of yogurt are in each container? __________

3. Which yogurt has more fat? __________
   a) What type of fat is this yogurt high in?

4. Which yogurt has fewer calories? __________

5. Which yogurt has more calcium? __________

6. What is Label B yogurt: regular or low-fat yogurt? __________

7. Which yogurt would you eat? __________
   a) Why? ______________________

Name: ___________________
A Look at Labels

The nutrition information on food labels helps you to choose healthier foods by allowing you to compare products more easily. Look at the yogurt labels below and compare their nutritional content.

1. If you eat one serving of Label A yogurt, how many calories would you be having? **170 kcal**

2. How many servings of yogurt are in each container? **One**

3. Which yogurt has more fat? **A**
   a) What type of fat is this yogurt high in? **Saturated**

4. Which yogurt has fewer calories? **B**

5. Which yogurt has more calcium? **B**

6. What is Label B yogurt: regular or low fat yogurt? **Low fat**

7. Which yogurt would you eat? ____________
   a) Why? ______________________

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### Nutrition Label Match Game

<table>
<thead>
<tr>
<th><strong>Serving Size</strong></th>
<th>Listed in Nutrition Facts. It can be compared to the amount eaten at one sitting or the amount listed on other similar products.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calorie</strong></td>
<td>The measure of energy supplied by the food we eat.</td>
</tr>
<tr>
<td><strong>Protein</strong></td>
<td>Provides energy for our bodies and is also used to build up and maintain the tissues throughout the body – muscles, organs and some hormones. It is found in milk products, eggs, meat, poultry, fish, nuts, seeds and legumes.</td>
</tr>
<tr>
<td><strong>Carbohydrate</strong></td>
<td>A nutrient that provides our main source of energy to our muscles and our brains. It is found mainly in grain products and in vegetables and fruit.</td>
</tr>
<tr>
<td><strong>Fat</strong></td>
<td>Provides energy, carries and stores vitamins A, D, E and K, insulates the body and cushions skins, bones and organs. It is found naturally in animal products and vegetable oils. It is often added to food for flavour.</td>
</tr>
<tr>
<td><strong>Vitamins &amp; Minerals</strong></td>
<td>Nutrients needed by the body in very small amounts for good health.</td>
</tr>
<tr>
<td><strong>Ingredients</strong></td>
<td>Parts in a mixture or recipe.</td>
</tr>
<tr>
<td><strong>Gram</strong></td>
<td>A metric unit of weight. A paper clip weighs about this much.</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Enriched</strong></td>
<td>The addition of vitamins and minerals (that may have been lost during processing) into food products.</td>
</tr>
<tr>
<td><strong>Fortified</strong></td>
<td>The addition of some nutrients (that may be lacking in the food people eat) into food products.</td>
</tr>
<tr>
<td><strong>Additives</strong></td>
<td>Substances added to food for various reasons such as: to stop food spoilage, to give flavour or to give colour. Some common examples include BHT (butylated hydroxytoluene), carrageenan, and cellulose.</td>
</tr>
<tr>
<td><strong>Sugars</strong></td>
<td>Carbohydrates that makes food taste sweet. The type of carbohydrate obtained from sugar cane or sugar beets.</td>
</tr>
<tr>
<td><strong>Fibre</strong></td>
<td>A type of carbohydrate that your body does not absorb. It helps move food through your digestive tract. It is found in high amounts in whole-grain foods, legumes, vegetables and fruit.</td>
</tr>
<tr>
<td><strong>Trans (fat)</strong></td>
<td>These fats are mainly formed from vegetable oils that have been treated to stay solid or semi-solid at room temperature. You may find these unhealthy fats in many processed foods like cookies, crackers and snack foods. These fats raise cholesterol levels and increase the risk of heart disease.</td>
</tr>
<tr>
<td><strong>Saturated (fat)</strong></td>
<td>A type of fat found naturally in butter, cheese, whole milk and meat. Too much of this unhealthy fat may raise cholesterol levels and increase the risk of heart disease.</td>
</tr>
</tbody>
</table>
Your Secret Recipe

Make a recipe using the nouns, verbs or adjectives as the ingredients that make you feel good about yourself. Then write a method on how to use these ingredients to make you feel good.

Name of Recipe

Ingredients

Method

Adapted from The Best You Can Be, Grades 4 - 6, Regional Public Health, David Thompson Health Region
Let's Have a Look

Look through magazines and list the following:

1. Products or ads that promote healthy living habits.

2. Products or ads that portray a healthy body image.

3. Products or ads that promote unhealthy living habits.

4. Which products or ads appeal to you most and why?
ADS & US

Complete the sentences with the correct words.

1. The brand name is often ___________________________ to help us remember it.

2. Sometimes ads use fashion ___________________ and claim we can be like them too, if we use their product.

3. Your ___________________________ can affect your feelings about a brand.

4. Advertisements can influence our own _________   ________.

5. ___________________________ is one of the advertising methods that companies will use to persuade us to buy their product.

6. Some ads use sports ___________________________ or other celebrities to sell their products.

7. Some photographers use _______   _______ or ___  ______ to make models look “flawless.”

8. Some magazine ads can make us feel __________________ about the way we look.
Complete the sentences with the correct words.

body image  repeated  air brushing  models  values
computer imagery  stars  music  exaggeration  dissatisfied

1. The brand name is often ________repeated________ to help us remember it.

2. Sometimes ads use fashion __models__and claim we can be like them too, if we use their product.

3. Your ___values________ can affect your feelings about a brand.

4. Advertisements can influence our own ___body____  ___image____.

5. __Exaggeration______ is one of the advertising methods that companies will use to persuade us to buy their product.

6. Some ads use sports _____stars____________ or other celebrities to sell their products.

7. Some photographers use __computer  imagery__ or __air  brushing__ to make models look “flawless.”

8. Some magazine ads can make us feel ____dissatisfied______ about the way we look.

Adapted from *The Best You Can Be, Grades 4 - 6*, Regional Public Health, David Thompson Health Region
Choose an advertisement that you like from your magazine. After reading it, answer these questions:

1. What product is being advertised? Can you tell right away before reading any words on the ad?

2. What messages are you getting from the ad (from the words or the scene used in the advertisement)?

3. What advertising technique has the advertiser used to interest you in the product?

4. How does this ad make you feel about your body image?

5. Do you feel that appealing to improving body image is a good technique for advertisers to use?

   Why or why not?
Name: ______________________________

A CLOSER LOOK AT MAGAZINES

Look through a magazine for the following information:

1. Total number of advertisements in the magazine. ______________________________

2. Total number of pages in the magazine. ______________________________

3. How many advertisements have a woman in it? ______________________________

4. How many advertisements only show a part of the woman’s body? ______________

5. How many advertisements use words that refer to the way a woman looks or feels to sell their products? ______________________________

6. How many advertisements show a thin woman? ______________________________

7. How many advertisements show a short or fat woman? _________________________

8. How many advertisements show a muscular or toned man? _____________________

9. How many advertisements show a short or fat man? ___________________________
Understanding Growth

Using the clues at the bottom of the page, fill in the crossword puzzle.

Across
1. Rapid growth that begins between the ages of 9 and 12 is called the adolescent’s _____________.
2. During adolescents, girls’ _______ widen.
7. Boy’s _______ broaden during adolescence.
10. Energy comes mainly from the _______ in the food you eat.
11. The growth spurt begins at an average age of _____ for boys.
12. Your body needs _______ energy than it did when you were younger.

Down
2. The growth spurt begins at an average age of _____ for girls.
3. _______________ are chemicals the body produces that control the way your body grows.
4. You inherited your body shape from your ________.
5. If you don’t eat enough calories, it may __________ your growth.
6. Boys gain more _______ than girls during the growth spurt.
8. Eat enough food to _________ your hunger.
9. Your body is like a computer that grows on its own growth _________.

Word Selection
parents  ten  shoulders  Calories  hormones  twelve  hips  more
program  slow  growth spurt  program  satisfy
Understanding Growth

Answer Key

Using the clues at the bottom of the page, fill in the crossword puzzle.

Across
1. Rapid growth that begins between the ages of 9 and 12 is called the adolescent’s growth spurt.
2. During adolescents, girls’ hips widen.
7. Boy’s shoulders broaden during adolescence.
10. Energy comes mainly from the Calories in the food you eat.
11. The growth spurt begins at an average age of twelve for boys.
12. Your body needs more energy than it did when you were younger.

Down
2. The growth spurt begins at an average age of ten for girls.
3. Hormones are chemicals the body produces that control the way your body grows.
4. You inherited your body shape from your parents.
5. If you don’t eat enough calories, it may slow your growth.
6. Boys gain more muscle than girls during the growth spurt.
8. Eat enough food to satisfy your hunger.
9. Your body is like a computer that grows on its own growth program.

Word Selection
parents  ten  shoulders  Calories  hormones  twelve  hips  more
program  slow  growth spurt  program  satisfy

Adapted from materials prepared by the Department of Food Science and Human Nutrition, Ames, Iowa, Iowa State University.

Discover Healthy Eating! A Teacher’s Resource for Grades 1 - 6, 2009
How Do I Look?

1. If boys and girls your age think they are getting fat, they should go on a weight-loss diet.  TRUE  FALSE

2. Most girls and boys your age should have the same body shapes as magazine models.  TRUE  FALSE

3. People all over the world prefer to be tall and thin.  TRUE  FALSE

4. It is healthy for boys and girls your age to eat when they are hungry.  TRUE  FALSE

5. It is normal for boys and girls your age to be dissatisfied with the way some parts of their bodies look.  TRUE  FALSE
## 11. Healthy Living Grade 6 Activities

### Healthy Eating Overall Expectation

Explain how body image and self-esteem influence eating practices.

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<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| **Determine the influence of various factors (e.g., the media, family traditions, allergies) on personal food choices, body image, and self-esteem.** | 1. A Basket of Self-esteem  
2. Body Image Check  
3. Boost Your Body Image  
4. It’s a Family A-Fare  
5. My Eating Pattern Brainstorm  
6. Media Collages  
7. Role Playing Skits  
8. The World in our Classroom  
9. The Great Debate  
10. Smart Shopping  
11. Tic-Tac-Toe | • Review body image and self-esteem concepts  
• Factors influencing personal food choices, body image, self-esteem (i.e. media, family, school policies and practices, allergies, heredity, culture, taste, other adults) |
| **Analyse personal eating habits in a variety of situations (e.g., at home, in school, in restaurants).** | 12. What Does Food Mean to You?  
13. What Have I Eaten? (Performance Assessment)  
14. To Buy or Not to Buy?  
15. Restaurant Survey | • Factors affecting choice of foods (i.e. time of day, alone or with people, religion, culture, availability of foods)  
• Healthy eating at school, home or restaurant  
• Analyze personal eating habits on basis of four food groups and six nutrients |
| **Describe the benefits of healthy eating for active living.** | 16. Fuel Your Body  
17. Healthy Eating and Active Living  
18. Jingle  
19. Teacher for a Day  
20. Benefits of Physical Activity  
21. Get a Move On  
22. Why Be Physically Active? | • Healthy Eating and Active Living message  
• Describe the benefits of healthy eating for active living |
Specific Expectation

Determine the influence of various factors (e.g., the media, family traditions, allergies) on personal food choices, body image, and self-esteem.

1. **A Basket Of Self-Esteem**

Pass a basket of small objects (like beans, marbles, or scraps of paper) around the class and invite students to take as many as they would like. Instruct students to hold onto their objects until given further instructions. For each object taken, ask the students to say a positive quality or talent they have. For example, “I care about cats”, “I like to play basketball”, or “I like my laugh”. If students have difficulty naming positive qualities, ask other students to help.

Follow with an introduction to the subject of self-esteem by exploring the following questions (see Background Information):
- What does self-esteem mean?
- How can healthy self-esteem help you?
- How can you tell if you have healthy or unhealthy self-esteem?
- What influences your self-esteem?
- How do you develop healthy self-esteem?

2. **Body Image Check**

Review the topic of body image (see Background Information). What does the term ‘body image’ mean? What contributes to poor body image? Link the topic of self-esteem to body image to demonstrate that one flows into the other. As a class, brainstorm some ways in which poor body image can be changed to healthy body image. Identify some barriers to making these changes and how to over come them. Some ideas include reminding oneself of all the things one likes about oneself besides physical appearance and not focusing on individual parts of one’s body but on the body as a whole. Remind students that they should be smart about images in the media. Models are paid to look the way they do and spend many hours getting there. Ordinary people have other responsibilities, like school or jobs.

3. **Boost Your Body Image**

Have students write their feelings about their own body image in a journal. Students can capture:
- a record of their feelings over time
- what influences their own body image (see Background Information)
- how their self-esteem is influenced by their body image
- a list of ways to improve their body image
- steps taken to reach or maintain a positive body image

Students may wish to share some of their ideas with the rest of the class.
4. **It's A Family A-Fare**

Introduce the topic of family influence on food choices by posing the following questions to the class.

- Who does most of the cooking in your family?
- Who does most of the meal planning?
- Who does most of the shopping?
- Which meals do you eat with other people? Which do you eat alone?
- What kind of influence do you have on what you and your family eat?

Through a discussion, explore the impact of family and culture on the students’ eating habits.

5. **My Eating Pattern Brainstorm**

Explain to students that a person’s eating pattern includes details of what that person eats, how much, where, and when. To help students understand what influences their own eating pattern or food choices, begin a discussion using one of the following questions:

- What is your favourite meal/dish? Why?
- What is your favourite snack? Why?
- Which of the foods your parent/guardian buys regularly are your favourites? Why?

On a flip chart or the chalkboard, list the reasons why these foods are their favourite. Students may tend to focus on taste. Guide a discussion about other influences on their eating habits (e.g., media, family traditions, allergies, hunger, personal habits, where we live, peers, and situations which elicit emotions like boredom, anger, or sadness).

6. **Media Collages**

Using pictures from magazines, have students design collages showing examples of pressures to have a certain type of body. Some themes to consider are:

- women and men in the fashion media
- sports figures and celebrities in the media
- real people like parents, siblings, and neighbours in the media.

Have students present what they noticed about the people in their theme collages. Students should observe:

- how people are similar or different to each other (e.g., cultures, heredity, age, and self-esteem)
- how the people they know are similar or different to fashion models, sports figures and celebrities

Discuss as a class how magazines and other forms of advertising place pressures on people to be thin, strong, or muscular. Note if visible minorities are portrayed in the media. How? Discuss how this makes them feel and influences their body image. Discuss the advantages of being unique and your own person.
7. **Role Playing Skits**

Divide students into groups and ask them to develop and perform short skits that illustrate pressures on youth to be thin and/or muscular and have a perfect body. After students perform their skits, discuss ways in which these pressures affect their self-esteem and ways to protect self-esteem by having a realistic body image (see Background Information).

8. **The World In Our Classroom**

Help students identify the variety of ethno-cultural groups in their class. Students complete *The World in our Classroom* activity sheet and report their responses to their classmates. Reassure students that words from their cultural background can be spelled in English letters by sounding it out. Discuss how culture and cultural practices affect people's food selections. Ask students to think about foods from other countries that bring variety to menus and influence what people eat (e.g., naan, souvlaki, chili, and tofu).

Organize a taste testing party. Each student can bring a food or a dish from home that represents their ethnic or cultural background or that their family likes to make. This is a good opportunity to talk to the class about food allergies and the impact they make on the food choices some people must make. If applicable, reinforce that certain types of foods are not permitted into the classroom due to food allergies.

9. **The Great Debate**

Hold a debating challenge. Ask students to come up with debating issues such as:

- ‘Resolved that friends influence the food choices one makes.’
- ‘Resolved that the school policy should make pop and chips unavailable in the cafeteria, at school events etc.’
- ‘Resolved that parents and teachers should let children eat what they want.’
- ‘Resolved that healthy eating belongs only at home.’

Divide students into pairs of teams for each topic being debated. One team of each pair must take the affirmative, the other, the negative. As a class, determine the rules (e.g. one person speaks at a time, and speakers alternate between affirmative and negative sides). Hold a class discussion about the points raised for the topic(s) debated.

10. **Smart Shopping**

As a class, investigate how the price of food influences the choices people make when buying groceries. First, gather three grocery store advertising flyers for the same week. Then, choose one or more foods from each of the four food groups and one food from the ‘sometimes’ foods. Make sure your choices are found in each of the flyers. Calculate the average prices for each of the chosen food items. Prepare a chart to display the findings. Discuss the influence of price on the food choices people make when they buy groceries. Continue this activity on a monthly basis for an extended period of time to compare average prices.
11. Tic-Tac-Toe

Play tic-tac-toe to review the factors that influence a person’s food choices, body image, and self-esteem. Draw a *tic-tac-toe* diagram on the chalkboard. Divide students into two teams - the X's and the O's. Decide which team goes first and line up each team in single file. The first person in line of the first team chooses a box. The teacher (or other student) asks a question and that student tries to answer the question. Sample questions and answers are on the *Tic-tac-toe Q & A* Sheet. If the player is correct, then their team symbol is placed in the box. If they are incorrect, the opposing team has an opportunity to answer the question to insert their own symbol in that box. Play continues with the first person in line of other team choosing a box and responding to a question. The winning team is the one that has three consecutive symbols in the diagram (i.e., XXX or OOO). If the diagram cannot be completed in this fashion, the teacher (or student) poses a tie-breaking question. Repeat the game as desired.
Specific Expectation

Analyze personal eating habits in a variety of situations (e.g., at home, in school, in restaurants).

12. What Does Food Mean To You?

Have students complete the activity sheet What Does Food Mean to You? Next to each trigger word, students list the food that first comes to their mind. Reassure students that words from their cultural background can be spelled in English letters by sounding it out. Collect the completed activity sheets and read some of the responses aloud (anonymously). In a class discussion, notice that food has different meanings for different people. This difference makes each person unique and adds variety to life.

13. What Have I Eaten? (Performance Assessment)

Using three copies of the Food Diary: What Have I Eaten? activity sheet, have students keep a food record for three days, including one weekend day. Have the students write down their responses to the following questions as they review their food diaries.

- Did you eat foods from all the food groups?
- Did you have three meals each day?
- At each meal, did you have something from at least three of the food groups?
- Did your snack choices represent foods from one or more of the food groups?
- How did you classify combination foods?
- Were your food choices ‘everyday foods’ most of the time?
- For each food group, did you eat a variety of choices or the same ones?
- What did you eat differently on the weekend day?

As a class, discuss the Food Diaries. After the discussion, have students set a personal goal for improving or maintaining eating habits. Have them brainstorm ways they can meet this goal. For example, a student may determine that they need to add two more Vegetables and Fruit servings to their daily menu. The student may decide to add a banana and carrot sticks to their breakfast. Working in pairs or small groups would be helpful. After students have tried out their plan for one week, discuss how easy or hard it was to meet their goals.

14. To Buy Or Not To Buy?

Have students compare the cost of buying dinner for their own family from a restaurant versus to making the entire meal at home. Use Canada’s Food Guide as a tool to ensure that foods from all the food groups are selected. Discuss variety in food choices and other factors contributing to successful meals like colour, texture, taste and convenience. Students can present their findings on a poster board with pictures, relevant statements, and headings. Discuss the implications of buying meals at restaurants rather than preparing them at home.
15. **Restaurant Survey**

As a class, create a survey or list of questions the students could use to observe or assess the menu at their favourite restaurant. If the school has a cafeteria, students can select that for the survey. After their observations, discuss what the students discovered.

- Did the menu have many ‘everyday foods’ to choose from?
- Were there nutrient-dense beverages, like milk and juice, available?
- Could the students ask for foods to be made a certain way (e.g., no butter on sandwiches, sauces and dressings on the side)?

If students find the need for more healthful options, have them write a letter to the school principal/restaurant manager describing the benefits of healthy food choices for lunch. Students should provide some examples of foods and meals that could be considered for the menu.
Specific Expectation

Describe the benefits of healthy eating for active living.

16. Fuel Your Body

Display pictures of a car and a person. Ask students to list the types of things that a car needs to operate properly (e.g., gas, oil, windshield wiper fluid, tune up, etc.). Next, ask students to list the type of things a person needs to keep healthy (e.g., foods, physical activity, time to relax, sleep, love). Emphasize that both cars and humans need fuel to function properly. Continue the discussion focusing on the benefits healthy eating can have on the body and how it functions. Relate the healthy eating pattern to its impact on feeling energized and ready for physical activity.

17. Healthy Eating And Active Living

To open this discussion, ask each student to state their name and a food or activity they enjoy that begins with the first letter of their name. For example, “I am Jamila and I like jogging.” “I am Peter and I like pineapple.”

Continue discussing how eating well and being active contribute to positive self-esteem (feeling good about yourself). As a class, have students brainstorm examples for each of the three components. For example, draw the following chart on the chalkboard to generate ideas.

<table>
<thead>
<tr>
<th>Eating Well</th>
<th>Being Active</th>
<th>Self-esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>drinking apple juice</td>
<td>walking the dog</td>
<td>Helping a friend</td>
</tr>
<tr>
<td>eating pizza</td>
<td>playing basketball</td>
<td>Doing well on a test</td>
</tr>
</tbody>
</table>

18. Jingle

Divide students into small groups to create a three or four-line jingle or poem that describes how to maintain a healthy body through healthy eating and being active. See the following samples. Have groups present their creations to the rest of the class.

Based on the tips in the jingles, break students into pairs and have them create personal contracts to maintain a healthy body through healthy eating and physical activity.

Sample Jingles:

Shake your body up and down the street
Walk or run to whatever your beat
It's good for your heart to get up and go
So get off the couch and don't be slow!

We like bananas and bagels and pie
Every food's a good food, I wouldn't lie.
Bananas and bagels we eat every day
Save pie for sometimes and healthy we'll stay.
19. **Teacher For A Day**

Arrange with a Grade 3 teacher for your class to visit their class to talk about the benefits of healthy eating for active living. Have your class brainstorm various aspects about the presentation, such as format, content, hand-outs/posters, or food samples/active living demonstrations. Divide the students into teams to work on parts of the presentation. Select one team to actually present to the class and another team to answer questions or lead the class through an activity. Debrief your students afterwards to see how they felt about the experience and the messages they delivered.

20. **Benefits of Physical Activity**

As a class, brainstorm the benefits of active living under three headings: Social, Mental/Emotional, and Physical. Discuss the meanings of these headings before beginning the brainstorming activity. Write students' ideas on the chalkboard. Continue with a discussion about active living and physical activity (see Background Information).

Following the discussion, divide the students into three teams lined up in rows at the back of the classroom. Make three copies of the *Benefits of Physical Activity* master sheet and cut out the benefit words. Place each set in a separate box at the front of the classroom. Provide each team with a copy of the *Benefits of Physical Activity* activity sheet. On ‘go’ the first person in each team runs to the front of the classroom and pulls a benefit out of their team box, and brings it back to their team. The team writes the benefit in the correct category on the worksheet. The next person in line continues the relay by running to the front of the classroom. The game ends when all the teams have completed their sheet. Have each group report to the class their responses for one of the three categories. Discuss responses. Refer to Answer Key.

21. **Get A Move On**

Distribute the *Get a Move On* crossword activity sheet. After the students have completed the crossword, discuss the answers.

22. **Why Be Physically Active?**

Have students write a magazine article or make a pamphlet that promotes the importance of physical activity. The article or pamphlet should target students and have a catchy title. The content should include details about how healthy eating plays an important part of leading an active lifestyle. Display for everyone to read on their own time.
The World in our Classroom

Answer the following questions about your cultural background. Share your responses with your classmates.

My name is …

My nationality is …

I was born in the country …

My parents were born in the country …

The languages I speak are …

The word ‘hello’ in my native language is …

In my culture, I celebrate holidays by …

My favourite food from my culture is …

This favourite food looks like …

This favourite food tastes like …

Name: __________________________
tic-tac-toe Q & A Sheet

1. Fashion magazines often show pictures of people who...
   (a) have not been touched up by make-up and computers
   (b) are real people like you and me
   (c) have unhealthy weights

2. Body image is a picture you have of...
   (a) your own body
   (b) your friend’s body
   (c) your pet’s body

3. You can increase your self-esteem by...
   (a) listing all the things you do not like about yourself
   (b) learning something new each day
   (c) believing people who say you are dumb

4. Heredity means...
   (a) the ways I am similar to my family
   (b) the difference between a pet rabbit and a wild hare
   (c) a new hair styling technique

5. A quick nutritious snack is...
   (a) a bag of dill pickle chips with root beer
   (b) fruit yogurt & banana
   (c) fruit roll-ups

6. Participating in physical activity...
   (a) improves your confidence level
   (b) makes you too tired to sleep
   (c) means you have to stay home and watch your favourite TV show

7. My self-esteem can be based on my ...
   (a) pet rabbit
   (b) talents
   (c) homework

8. One serious food allergy many children have is...
   (a) broccoli
   (b) popsicle
   (c) peanut

9. Schoolmates can put pressure on you to do things...
   (a) you were going to do anyway, like ride your bike
   (b) you do not want to do
   (c) like listen to the teacher

10. Many students your age...
    (a) may be dissatisfied with their bodies
    (b) are worried about paying the taxes
    (c) are happy to clean their rooms

11. Since I am still growing, I need...
    (a) to read more fashion magazines
    (b) to stop playing outside
    (c) extra food to help me grow

12. Most children today are not...
    (a) going to school
    (b) as physically active as they should be
    (c) spending time with their friends

13. When people are bored, they sometimes...
    (a) eat, even if they are not hungry
    (b) go to the washroom
    (c) are extremely busy doing more than one thing at a time

14. Television commercials often advertise snacks that are...
    (a) “everyday foods”
    (b) “sometimes foods”
    (c) stale
15. The best type of body shape is …
   (a) tall and thin
   (b) short and muscular
   (c) there is no ‘best type’

16. Your family influences what you eat when …
   (a) you make your own after school snack
   (b) your parent makes your lunch
   (c) you do the grocery shopping

17. Foods from different cultures …
   (a) can be equally healthy
   (b) do not taste very good
   (c) are hard to chew

18. The main reason children give for choosing a favourite food is …
   (a) taste
   (b) smell
   (c) convenience

19. Heredity determines your …
   (a) shoe colour
   (b) body height
   (c) school bus route

20. Self-esteem begins to develop …
   (a) at birth
   (b) before you are born
   (c) when you reach 5 years old

21. When buying groceries, some people make choices based on …
   (a) price
   (b) ingredient listing
   (c) both of the above

22. A great way to praise a friend is to say…
   (a) “Hey, have you lost weight? You’re looking good.”
   (b) “Your hair looks a lot better than yesterday.”
   (c) “I really like your art work (poem, or science project).”

23. You love your friends and family because they are …
   (a) beautiful
   (b) slim
   (c) kind

24. A great way to start the day is with …
   (a) a bag of cheezies
   (b) a bowl of cereal with milk and a fruit
   (c) coffee and a cigarette

25. Fitness magazines often encourage boys to…
   (a) read Romeo and Juliet
   (b) bulk up
   (c) play video games

26. Advertising companies use which techniques in their messages?
   (a) computer imagery and superimposed body parts
   (b) air-brushing and props during photo shoots
   (c) both of the above

27. When having a discussion it is best to …
   (a) always agree with what everyone else is saying
   (b) consider your opinions and express them calmly
   (c) always disagree with what everyone else is saying

28. Movies are full of people who …
   (a) look like you and me
   (b) have different body sizes and shapes
   (c) are thin and young

29. Schools can positively influence what students eat by...
   (a) providing healthy choices in the cafeteria
   (b) providing healthy choices in the vending machines
   (c) both of the above

30. Healthy eating includes...
   (a) foods from all four food groups
   (b) “everyday foods” most of the time
   (c) both of the above
What Does Food Mean to You?

Next to each word below, write the first food that comes to your mind that represents the listed word (e.g., “adventure” may remind you of “trailmix” or “sushi”, or something else).

health ____________________________    illness ____________________________

party _______________________________    expensive __________________________

yuck _________________________________    cheap _____________________________

home _________________________________    cool _____________________________

love _________________________________    diet _____________________________

friendship ___________________________    baby _____________________________

munchies _____________________________    child _____________________________

memories _____________________________    teenager __________________________

holiday _______________________________    dad _____________________________

religion _______________________________    mom _____________________________

hunger ________________________________    grandparent _______________________

tradition _______________________________    refreshing _________________________

ethnic ________________________________    comfort __________________________

excitement _____________________________    yummy ___________________________

convenience _____________________________    unusual __________________________
**Food Diary: What Have I Eaten?**

In the first column, list the foods you ate yesterday. For each food item, write the number of servings from each food group. Use a check mark (✓) to show food items in the “Sometimes Foods” category. Total the number of servings in each column.

<table>
<thead>
<tr>
<th>Meals or Snacks</th>
<th>Vegetables and Fruit</th>
<th>Grain Products</th>
<th>Milk and Alternatives</th>
<th>Meat and Alternatives</th>
<th>“Sometimes Foods”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast or Before School</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Sample food item:</em> 2 pieces of toast with jam</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morning Snack</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Lunch</td>
<td></td>
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<td>Afternoon Snack</td>
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<td></td>
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<tr>
<td>Supper or Dinner</td>
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<td><strong>Total Servings</strong></td>
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## Benefits of Physical Activity

### Master Sheet

<table>
<thead>
<tr>
<th>making friends</th>
<th>learning new activities</th>
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<tbody>
<tr>
<td>getting along with others</td>
<td>feeling confident</td>
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<tr>
<td>cooperating</td>
<td>learning to make decisions</td>
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<tr>
<td>having fun</td>
<td>having fun</td>
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<tr>
<td>laughing</td>
<td>relaxing</td>
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<tr>
<td>helping others</td>
<td>improving self control</td>
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<tr>
<td>better health</td>
<td>more stamina</td>
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<tr>
<td>stronger muscles</td>
<td>sleeping better</td>
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<tr>
<td>improved skills</td>
<td>improved fitness</td>
</tr>
</tbody>
</table>

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Name: ____________________________

**Benefits of Physical Activity**

Using the list of words provided, write each ‘benefit’ in the correct category below.

<table>
<thead>
<tr>
<th>Social</th>
<th>Mental or Emotional</th>
<th>Physical</th>
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Benefits of Physical Activity
Answer Key

Using the list of words provided, write each ‘benefit’ in the correct category below.

<table>
<thead>
<tr>
<th>Social</th>
<th>Mental or Emotional</th>
<th>Physical</th>
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<td>Learning new activities</td>
<td>Better health</td>
</tr>
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<td>Getting along with others</td>
<td>Feeling confident</td>
<td>Stronger muscles</td>
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<tr>
<td>Having fun</td>
<td>Learning to make decisions</td>
<td>Improved skills</td>
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<tr>
<td>Cooperating</td>
<td>Having fun</td>
<td>More stamina</td>
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<tr>
<td>Helping others</td>
<td>Laughing</td>
<td>Improved fitness</td>
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<td>Relaxing</td>
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<td></td>
<td>Improving self control</td>
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<tr>
<td></td>
<td>Sleeping better</td>
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</tr>
</tbody>
</table>

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Get a Move On

Use the word list to complete the word clues below. Then fill in the blanks of the crossword puzzle.

Word List
better    cooperate    fun    improved    stamina
confident    fitness    friends    relaxed    stronger

Across
1. Games, sports and activities are a good way to make new ________.
2. Teammates learn to ________________.
3. People who are active feel more __________ about their abilities.
4. After exercise, people feel more ____________.
5. Physical activity makes your muscles ________.

Down
6. Practice results in ___________ skills.
7. Active living is _____.
8. People who are active sleep ___________ at night.
9. Active people have more ______________ because their hearts are strong.
10. Vigorous activities like swimming, running or skating improve your ___________.

Adapted from Getting There is Half the Fun, The Region of Hamilton-Wentworth, 1995.
Get a Move On
Answer Key

Use the word list to complete the word clues below. Then fill in the blanks of the crossword puzzle.

Word List
better cooperate fun improved stamina
confident fitness friends relaxed stronger

Across
1. Games, sports and activities are a good way to make new friends.
2. Team mates learn to cooperate.
3. People who are active feel more confident about their abilities.
4. After exercise, people feel more relaxed.
5. Physical activity makes your muscles stronger.

Down
6. Practice results in improved skills.
7. Active living is fun.
8. People who are active sleep better at night.
9. Active people have more stamina because their hearts are strong.
10. Vigorous activities like swimming, running or skating improve your fitness.

Adapted from Getting There is Half the Fun, The Region of Hamilton-Wentworth, 1995.
Background Information Grades 7-8

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Background Information  
Grades 7-8

1. What is Healthy Eating?

Healthy eating provides youth with the energy and nutrients they need for:
- Healthy growth and development,
- Academic performance, and
- Participation in regular physical activity.

Learning about healthy eating not only means understanding Canada’s Food Guide, but it also means learning how to develop healthy habits that will last a lifetime. This section discusses how having a healthy attitude towards food is just as essential to healthy eating as actual food choices. Critical at this age is an awareness of the factors that affect food choices.

The role of physical activity in supporting healthy eating is also discussed. Body image and self-esteem are important issues that influence eating habits in youth. Disordered eating and dieting may be areas of concern and teachers are often looking for information and support. Discover Healthy Eating! may provide support and references other helpful resources.

1.1 Eating Well with Canada’s Food Guide

In 2007, Canada’s Food Guide to Healthy Eating was redesigned and renamed Eating Well with Canada’s Food Guide. This revision was intended to reflect the updated nutrient recommendations (Dietary Reference Intakes) and to help make the Guide easier to understand and use. Canada’s Food Guide describes the amount and types of food considered to be part of a healthy eating pattern. This type of pattern helps individuals meet their nutrient needs, reduce their risk of chronic disease and achieve overall health and vitality.

When teaching Canada’s Food Guide, use the rainbow design to help communicate that the different sizes of the arcs represent the proportion of each food group in a healthy eating pattern. Canada’s Food Guide recommends enjoying a variety of foods from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives.

a) Food Guide Serving Sizes

Canada’s Food Guide recommends a different number of Food Guide Servings for different age and gender groups. The amount of food youth will eat also depends on their appetite, their activity level and how fast they are growing. Although energy needs tend to increase through puberty, this increase is not steady and varies according to each youth’s own growth pattern. As a general rule, if youth eat according to their appetite and meet, at a minimum, the recommended number of Food Guide servings for all four food groups, they will get the nutrition they need.
A Food Guide Serving is simply a reference amount. Food Guide Servings help you understand how much food is recommended every day from each of the four food groups. In some cases, a Food Guide Serving may be close to the amount you eat, such as an apple. In other cases, you may serve yourself more than one Food Guide Serving, such as rice or pasta, at a meal. It is important to note that the serving size on a nutrition label is not always equivalent to a Food Guide Serving or to the amount you normally eat.

b) The Four Food Groups’ Key Messages

1) Vegetables and Fruit

Eat at least one dark green and one orange vegetable each day.
- Dark green vegetables are important sources of folate. Examples include broccoli, spinach, romaine lettuce, green beans, brussel sprouts and bok choy.
- Orange vegetables are rich in carotenoids such as beta-carotene, which the body converts to vitamin A. These include carrots, squash and sweet potatoes. Some orange-coloured fruit such as apricots, cantaloupe, mango and papaya are also important sources of carotenoids. You can eat them in place of an orange vegetable.

Choose vegetables and fruit prepared with little or no added fat, sugar or salt. Most vegetables and fruit are naturally low in fat. Examples of higher fat choices include french fries, onion rings, salads with large amounts of dressing, and fruit served with cream. Fruit packed in heavy syrup has more sugar and adds extra calories. Choose fresh fruit, unsweetened frozen fruit or fruit packed in water or juice. Look at the Nutrition Facts table on the package to find the amount of fat and salt (sodium) in prepared and packaged vegetables. Use fresh or dried herbs, spices, flavoured vinegars or lemon juice instead of salt to enhance the flavour of vegetables.

Beware of packaged food with the word ‘fruit’ and ‘vegetable’ in their name. Examples of these types of foods include fruit snacks, vegetable chips, fruit jams, and fruit ‘drinks’, ‘cocktails’ or ‘punches’. Most of these products are high in sugar, salt and/or fat, and contain little amounts of real fruit or vegetables. As a result, they do not belong to this food group.

Have vegetables and fruit more often than juice. Vegetables and fruit contain fibre while their juices contain little to none. Fibre can help you feel full and satisfied. Youth should be encouraged to try a variety of vegetables and fruit.

Many of the fruit ‘drinks’, ‘beverages’ ‘cocktails’, or ‘punches’ available are mostly sugar, with some vitamins added and do not provide youth with the other vitamins and minerals naturally found in 100% pure fruit or vegetable juice. See the ‘Rethink What You Drink’ section for more information on beverages.
2) Grain Products

Make at least half of your grain products whole grain each day.
Whole grains and whole grain foods are composed of all three layers of the grain seed or kernel:

- The bran (outer layer): provides all of the fibre as well as B vitamins; minerals such as magnesium, iron and zinc; phytochemicals; and some protein.
- The endosperm (middle layer): accounts for the majority of the weight of the grain and is composed mostly of carbohydrate and protein.
- The germ (inner layer): provides B vitamins, unsaturated fats, vitamin E, minerals and phytochemicals.

Examples of whole grains include brown rice, bulgur, pot barley, quinoa, whole oats or oatmeal, whole grain wheat and whole rye. You can find out if a product is made with whole grain by reading the ingredient list on the food label. Whole grain foods will have the words ‘whole’ or ‘whole grain’ followed by the name of the grain as one of the first ingredients.

Choose grain products that are lower in fat, sugar or salt.
Baked goods such as cakes, croissants, doughnuts, pastries, pies and most cookies and muffins will add extra calories, fat, sugar and/or salt (sodium) to the diet and should be limited. These foods are typically low in fibre and are not usually made with whole grains. Use the ingredient list and Nutrition Facts table on food labels to compare products and make informed choices. Choose products that have as little trans fat and saturated fats as possible. Avoid products that have ‘partially hydrogenated’ and ‘vegetable oil shortening’ in the ingredient list.

3) Milk and Alternatives

Drink skim, 1% or 2% milk each day.
Everyone should drink two cups of low fat milk each day to obtain adequate vitamin D. Drinking low fat milk is an effective way to consume protein, calcium, magnesium, riboflavin, vitamin A, vitamin B12, vitamin D and zinc while minimizing the amount of saturated fat and calories. Fortified soy beverage can be used as an alternative to milk. Rice, potato and almond beverages may be fortified, however, these types of beverages do not contain the level of protein found in milk and fortified soy beverage. Look for the word ‘fortified’ on the label of soy beverages, as only these contain added vitamins and minerals to make them a nutritionally adequate alternative. It’s important to shake the container since added calcium may stick to the package lining.
Select lower fat milk alternatives.
Lower fat yogurts are those with 2% milk fat (M.F.) or less. Lower fat cheeses have 20% M.F. or less. Selecting these lower fat products helps to reduce saturated fat intake.

Cream cheese, sour cream, and ice cream are not a part of the Milk and Alternatives food group since they tend to be higher in fat and sugar and their calcium content is very low. The ‘chocolate bar’ milkshakes available are high in sugar and fat. Chocolate milk is a healthy choice, as it contains the same amount of nutrients as white milk.

4) Meat and Alternatives

Have meat alternatives such as beans, lentils and tofu often.
Beans, lentils and tofu are sources of protein, fibre and folate. Eating more of these meat alternatives helps to minimize the amount of saturated fat in the diet.

Eat at least two Food Guide Servings of fish each week.
Fish is a great source of protein. It is low in saturated fat, with some types containing the omega-3 fatty acids. People are encouraged to eat at least two Food Guide Servings (150 grams) of fish each week to help reduce the risk of cardiovascular disease. Choose fish such as char, herring, mackerel, rainbow trout, salmon and sardines as these are good sources of omega-3 fats. Fish should be cooked using lower fat preparation methods, such as baking or broiling. Deep-fried fish or fast food fish sandwiches do not offer the same cardiovascular benefits.

Certain types of fish contain high levels of methylmercury, a strong toxin that concentrates in the muscle tissue of fish and shellfish. Higher methylmercury levels are typically found in large predatory fish, such as white (albacore) tuna, shark, king mackerel and swordfish; which accumulate methylmercury over their life span. Choose fish that are low in methylmercury. In terms of canned tuna, youth should be offered canned ‘light’ tuna.

Select lean meat and alternatives prepared with little or no fat.
Canada’s Food Guide emphasizes lean cuts of meat and skinless poultry to minimize the amount of saturated fat in the diet. Lean meat, poultry and fish become higher fat choices once they are fried, deep-fried or served with higher fat sauces. Canada’s Food Guide recommends baking, broiling, poaching or roasting meats and allowing the fat to drain off.

When looking for processed deli meat, it is best to choose those that are lower in fat, like chicken, turkey and black forest ham. Foods such as hot dogs, bologna, chicken nuggets etc. are not the best choices as they tend to be high in saturated fat.

c) Oils and Fats in our Diet

Oils and fats play an important role in supplying calories and essential fats, and to help our bodies absorb the fat-soluble vitamins A, D, E and K. The type of fat we eat is as important as
unsaturated fats can help keep blood cholesterol levels healthy. There are two types of unsaturated fats: monounsaturated and polyunsaturated. Vegetable oils like canola, olive and soybean contain mainly monounsaturated and polyunsaturated fats. Canada’s Food Guide recommends that we use a small amount of unsaturated fat each day: 30 to 45 mL (2 to 3 tablespoons). This includes oil used for cooking, salad dressings, and non-hydrogenated margarine.

Saturated fats and trans fat are harmful to heart health since they raise blood cholesterol and increase the risk of cardiovascular disease. Saturated fats are mainly found in animal products like meats, butter, milk, cheese and eggs. Trans fat is mostly found in processed foods containing shortening or partially hydrogenated oil. Canada’s Food Guide recommends choosing foods that contain less fat, saturated fat and trans fat.

For more information on fats, see section 1.3 Calories and Nutrients on page 132.

d) Foods and Beverages to Limit

Canadians get 23% of their calories from the foods and beverages that are not part of the four food groups (Garriguet, 2004). Food and beverages that are high in calories, fat, sugar and/or salt (sodium) and low in nutrients are considered foods to limit.

Examples of foods and beverages to limit:

- Cakes and pastries
- Chocolate and candies
- Cookies and granola bars
- Ice cream and frozen desserts
- Doughnuts and muffins
- French fries
- Potato chips, nachos and other salty snacks
- Alcohol
- Fruit flavoured drinks
- Soft drinks
- Sports drinks
- Energy drinks
- Sweetened hot or cold drinks
The portion sizes of foods to limit have increased considerably over the years, contributing to excessive caloric intake. This is why it’s important to be aware of portion sizes when selecting foods and beverages and to listen to your body’s hunger and satiety cues. It is encouraged to choose foods and beverages that are nutrient dense more often. By choosing foods from the four food groups we ensure that we are consuming nutrient dense foods and beverages.

e) Rethink What You Drink

Water
Canada’s Food Guide recommends drinking water to satisfy thirst. Water maintains normal body functions and prevents dehydration. Fortunately, in most areas of the province, municipal tap water is safe to drink. In rural areas many people use well water that needs to be regularly tested by the homeowner. This service is free from your local health unit/department.

Milk
Canada’s Food Guide recommends two servings of fluid milk daily for everyone. Youth 9 to 18 years of age should consume an additional 1-2 servings of Milk and Alternatives daily. Fortified soy beverage can be used as an alternative to milk. Chocolate milk is a healthy choice, as it contains the same nutrients as white milk and the same amount of sugar as unsweetened orange juice.

Juice
100% unsweetened vegetable or fruit juices can also be a healthy beverage choice, however, juice intake should be limited to about 1 cup per day for youth. Vegetables and fruit should be consumed more often than juice to get more fibre and to help feel full and satisfied. When choosing fruit juice, it is important to look for ‘100% juice’ on the label. Many fruit drinks, punches and cocktails contain less than 10% juice and are mostly water and sugar.

Sweetened Beverages
Soft drinks and other sweetened beverages like fruit drinks, sports drinks and energy drinks contain large amounts of sugar with little nutritional value. These beverages have come to displace more nutritious beverages and foods from our diets. The consumption of these beverages should be limited.

Studies suggest that when we drink liquids, the body’s satiety cues are not triggered in the same way as eating solids (Della Valle et al, 2005; DiMeglio et al 2000). This means that our bodies do not register calories from liquids in the same way as calories from food. Therefore, we don’t make up for liquid calories by eating less solid food. This is exacerbated by the increased consumption and larger portion sizes of sweetened beverages over the last few decades.

Some beverages such as pop or energy drinks may contain caffeine. Energy drinks are not recommended for children and youth due to their high caffeine content. Caffeine can cause nervousness, irritability, headaches and difficulty sleeping. Drinking one can of pop with caffeine affects a child in the same way as three to four cups of coffee would affect an adult. Cola and diet cola drinks also contain phosphoric acid. Phosphoric acid weakens tooth enamel and increases the risk of dental cavities. It is important that nutritious drinks like milk not be replaced by pop or other sweetened beverages.
1.2 A Healthy Attitude Towards Food

It is important to emphasize healthy eating and the development of a positive approach to food. Canada’s Food Guide recognizes that healthy eating is the overall pattern of foods eaten. It is important to be able to recognize your body’s hunger and satiety cues in order to respond to the physiological need to eat instead of eating for emotional or social reasons.

Eating Breakfast

Students who do eat breakfast daily are more likely to have an overall adequate diet, when compared to those who do not eat breakfast. A survey of breakfast habits in youth found that in grade 6, 78% of boys and 67% of girls ate breakfast (more than a glass of milk or fruit juice) on all five weekdays (Boyce, 2004). However, as grade level increased, there was a decline in the proportion who ate breakfast daily (Boyce, 2004).

A complete breakfast should include foods from three to four of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. Choose a variety of different foods for breakfast to ensure that the body gets the nutrients and energy that it needs. Foods served at breakfast do not have to be ‘traditional’ breakfast foods such as toast or cereal. All kinds of food can be eaten. For example, people from some cultures eat soup, rice, fish, dal, tortilla, leftover pizza or spaghetti for breakfast. Breakfast does not have to be eaten as soon as a child wakes up, or even before the child leaves the home. If breakfast can’t be eaten at home, eating a traveling breakfast or arriving early and eating at school are also possibilities.

Student Nutrition Programs allow students have at least one healthy meal or snack each day without singling out those who may come to school hungry. The Ontario Ministry of Children and Youth Services funds Student Nutrition Programs and they can be found in some elementary and secondary schools. These programs are developed by local schools and community agencies and are often run by volunteers (i.e. parents, teachers and school staff). They must follow Ministry guidelines for nutrition standards. For more information on Student Nutrition Programs, go to the Ministry website at www.gov.on.ca/children/english/programs/beststart/nutrition/index.html. For information about local programs contact your local health unit/department.

Healthy Snacking

Adolescents need snacks to fuel their high energy and nutrient needs. Research shows that approximately 41% of Grade 7 students and 46% of Grade 8 students consume candy and chocolate bars five days a week or more. (Boyce, 2004) Since youth are often on the run, they need to learn how to choose snacks that are fast, convenient and healthy. Here is a list of some ideas to share with students:

- Milk, chocolate milk, pudding made with milk
- Yogurt, yogurt drink, smoothie made with yogurt
- Fruits such as grapes, bananas, cantaloupe, and fruit cups. Top with vanilla yogurt.
- Vegetable sticks with low fat salad dressing or low fat sour cream-based dips
- Whole wheat crackers topped with cheese, peanut butter or hummus
• Trail mix with cereal, nuts and dried fruit
• Cereal with milk
• Whole wheat bagel, bread or pita with light tuna or salmon salad

1.3 Calories and Nutrients

Healthy eating helps youth meet their energy needs for growth, development and activity. Nutrients in food provide energy, facilitate growth, and help the body to function properly. There are two main categories of nutrients: macronutrients and micronutrients.

Macronutrients are needed in relatively large quantities and they provide energy for the body. The three types of macronutrients are:

• Carbohydrate
• Fat
• Protein

Micronutrients are needed in relatively small quantities, perform specific functions, and help the body use the macronutrients. Micronutrients do not provide energy. The three types of micronutrients are:

• Vitamins
• Minerals
• Water

Calories

A calorie (or kilojoules in the metric system) is a measure of how much energy food can supply the body. The body uses the food eaten as fuel, burning it to produce energy. The body needs energy to function. Some nutrients have more calories than others do. There are four calories in each gram of carbohydrate and each gram of protein. There are nine calories in each gram of fat. Alcohol has seven calories per gram. Vitamins, minerals and water do not provide calories.

Carbohydrate

Between 4 and 18 years of age, 45-65% of total calories should come from carbohydrates. Carbohydrate is the body's major source of energy. There are three main types of carbohydrates:

• Sugar/simple carbohydrates - found in milk, fruit, table sugar, and candy
• Starch/complex carbohydrates - found in grains, breads, crackers, pasta, beans and lentils
• Fibre - found in vegetables, fruit, whole grains, beans and lentils. Fibre is the portion of plant foods that the body cannot digest.

Fibre

Canada's Food Guide encourages people to eat foods that are high in fibre. Eating patterns high in dietary fibre are associated with a healthy digestive system, and a lower incidence of cardiovascular disease and some types of cancer. Males between 9 and 13 years of age need 31 g of fibre daily and girls between 9 and 18 years of age need 26 g. At age 14 to 18, the requirement increases to 38 g for males. It is important to teach about the benefits of fibre. A study of nutrient intakes showed 94% of Ontario students in grades 6, 7 and 8 were below the requirement for fibre (Hanning et al., 2007).
Adolescents tend to eat fast foods and other ready-to-eat foods that contain minimum amounts of fibre. They should be encouraged to eat more foods of plant origin such as grains, cereals, fruit, vegetables, legumes, nuts and seeds.

**Fat**
Between 4 and 18 years of age, 25-35% of calories should come from fat. Fats and oils play an important role in that they supply calories and essential fats and help our bodies absorb the fat-soluble vitamins A, D, E and K. There are three main types of fat in our diet:
- **Unsaturated fats**, such as monounsaturates and polyunsaturates, are found in vegetable oils like canola, olive and soybean oils. These types of fat are healthy.
- **Saturated fats** are mainly found in animal products like meats, butter, milk, cheese and eggs. Large amounts of these types of fat are known to raise blood cholesterol and increase the risk of cardiovascular disease.
- **Trans fat** is mainly found in processed foods, baked goods and hard (stick) margarines containing shortening or partially hydrogenated oil. Trans fat raises blood cholesterol and increases the risk of cardiovascular disease.

**Tips to Avoid Trans Fat:**
- Avoid products that have ‘partially hydrogenated’ and ‘vegetable oil shortening’ in the ingredient list.
- Use the Nutrition Facts panel to choose products that have as little trans fat as possible.
- When choosing margarine, look for ones that say ‘non-hydrogenated’ on the package.

**Protein**
Between 4 and 18 years of age, 10-30% of total calories should come from protein. Aside from water, proteins are the most abundant substances in the human body. Proteins are found in every body cell and are essential for many body functions. Proteins are made up of amino acids. The body uses amino acids to develop bone, muscle, skin, and blood. Some common sources of dietary protein are fish, poultry, meat, legumes (beans, lentils), eggs, tofu, nuts, and milk products (milk, cheese, yogurt).

**Vitamins**
Vitamins do not provide energy but do help the body grow and stay healthy. Fruits, vegetables and enriched grain products are good sources of many vitamins. **Vitamin A** is an example of a vitamin that helps keep our skin and our eyes healthy. Carrots, spinach and broccoli are excellent sources of Vitamin A. Other examples of vitamins our bodies need are vitamins C, D, E, K and the B vitamins (e.g., folate).

Folate is a B vitamin that helps form new cells in the body. This vitamin is typically low in most adolescents’ diets. Folate can be found in many foods, such as beans and lentils, peanuts, spinach, orange juice, asparagus, broccoli, avocado and enriched breads, cereals and pasta.
Minerals
Minerals help build bones and teeth, help muscles work and are involved in various metabolic pathways. Calcium is an example of a mineral that helps build bones and teeth. Other examples of minerals our bodies need that we get from food are potassium, sodium, iron, zinc, phosphorus, magnesium, and copper.

An optimal intake of calcium during adolescence contributes to peak adult bone mass. In one study, it was found that 70% of grade 6, 7 and 8 students in Ontario were below the requirement for calcium (Hanning et al., 2007). Calcium intake is an important factor in the prevention of osteoporosis. The best sources of calcium include milk, yogurt, cheese and calcium-fortified soy beverages. Vitamin D is also important in calcium absorption. Canada’s Food Guide recommends that everyone drink 2 cups of milk everyday because it is the main food source of vitamin D. Youth between the ages of 9 and 18 need 3-4 servings of milk and alternatives daily. Other sources of calcium are canned salmon and sardines with bones, green leafy vegetables, and tofu set with calcium.

Iron is an important mineral found in our blood. With the help of a molecule called hemoglobin, iron carries oxygen to body cells. Once there, oxygen helps cells produce energy. When iron is in short supply, there is less oxygen available to produce energy, leading to a feeling of fatigue.

Males and females have high requirements for iron during adolescence. Adolescent males need iron because the development of muscle mass is accompanied by greater demand for blood volume. Adolescent females require more iron than children because they lose iron monthly during menstruation. Iron is found in a variety of foods such as meat, poultry and seafood, as well as legumes, enriched grains and some vegetables.

Water
About 50-60% of our total body weight is water. A person can survive only a few days without water. Water has many functions including carrying nutrients and oxygen to cells, maintaining body temperature, and assisting in digestion and respiration.

Under normal circumstances, the body loses water through breathing, sweating and excreting wastes. When it’s hot outside, your body loses even more water through sweat, especially if you’re active. Your physical performance and your ability to think can be impaired by losing as little as 1-2% of your body weight from fluids. It is important to teach students about the importance of drinking enough water to prevent dehydration. Beverages provide 80% of daily water intake while the other 20% comes from food. Youth between the ages of 9 to 13, need 1.6-1.8 litres of liquids per day; with water being the main contributor. Listening to one's thirst signal is not enough. Thirst is often one of the last signs of dehydration – you need to drink fluid before you become thirsty. Ensure that youth have easy access to water and encourage them to drink frequently throughout the day.
2. Factors Influencing Food Choices

For children and youth, eating is usually a social occasion with the people in their lives, including parents, older adults, peers and siblings. Observing others’ eating behaviour influences the development of youth’s own preferences and eating behaviour (Birch and Fisher, 2006). Eating behaviour can also be influenced by culture, family, personal likes and dislikes, etc. The media is highly influential with regards to food selection, body image and self-esteem.

As children get older, sources of food and influences on eating behaviour increase (American Heart Association, 2006). At a young age, adults provide all meals and snacks; at older ages, children begin daycare, go to school, begin to prepare their own snacks, and purchase more meals and snacks outside of the home. These factors influence children & youth’s food choices, eating behaviour, body image and self-esteem.

2.1 Individual Preferences

Youth’s food preferences are often guided by taste or liking (Taylor et al., 2005). Children & youth choose foods because they taste good and because eating those foods makes them feel good. For example, some foods (e.g., candy, cake) are associated with special occasions where people tend to be happy. Another common situation is when people eat out of habit rather than hunger, like eating while watching television. These factors can lead to less healthy choices.

Children & youth come to like and eat what is familiar. What is familiar is usually what is present in the environment (Birch and Fisher, 2006), consequently making the food environment that surrounds them very important. Healthy choices should be available in all settings, including at home and at school, so that children & youth are exposed to a variety of healthy foods. For example, dislike for vegetables is one of the three most important predictors of fruit and vegetable intake in children (Taylor et. al., 2005). However, if children & youth are eating vegetables and fruit with friends in a social setting, this can influence what types of foods they ‘like’.

2.2 Allergies

The incidence of life-threatening food allergies is increasing. Allergic reactions can happen anywhere - at home, in school or recreational facilities, at camp and on field trips. Severe allergic reactions (e.g. anaphylactic shock) occur when the body's immune system reacts to a particular allergen or irritant. Nine food substances are most frequently associated with food allergies and allergic-type reactions. These substances are often referred to as the nine priority food allergens and include peanuts, tree nuts, sesame seeds, soy, milk, eggs, fish including crustaceans and shellfish, wheat and other cereal grains containing gluten, and sulphites.

Children & youth with allergies face many situations at school which could potentially place them at risk for exposure to food allergens. Contamination of tables, desks, books or toys with the foods, or inadequate or infrequent cleaning of tables, desks, and equipment can result in
exposure to allergens. Other occasions that can pose risk include: sharing foods between youth, special occasions and parties where food is served and/or available. It is important that all school community members are aware of the potential life threatening nature of food allergies and the proper treatment of an allergic reaction.

In 2005, the provincial government passed a bill known as ‘Sabrina’s Law’ to create safer school environments for children & youth living with life-threatening allergies. Under the law, school boards are required to have allergy management plans and training in place for all schools. School anaphylaxis plans ensure that children & youth at risk are identified, strategies are in place to reduce the risk of exposure to allergens, and school staff are trained to respond to emergencies.

Sabrina’s Law can be found at:
http://www.edu.gov.on.ca/eng/healthyschools/anaphylaxis.html

More information on severe allergic reactions can be found on the Health Canada website at:
http://www.hc-sc.gc.ca/iyh-vsv/med/allerg_e.html

Health Canada and the Canadian Food Inspection Agency have created a series of pamphlets with information on each of the nine priority food allergens. These can be found at

2.3 Culture

Food is only one aspect of cultural traditions, yet it is probably one of the most talked about. In different cultures food can be a source of pleasure, comfort, security, and a symbol of hospitality, social status and religious significance. Culture can influence what we select to eat, how we prepare and serve it, and even how we eat.

The Canadian population consists of many diverse ethno-cultural groups, providing an ideal opportunity to choose from a large variety of foods. For example, pizza and a variety of pasta dishes came from Italy, sausages and hamburgers from Germany, stir-fry dishes from China, and pita bread sandwiches from Lebanon. People from different ethnic backgrounds have traditionally based their food choices on what has grown in the climates of their country of origin. For example, North Americans have traditionally built their meals around wheat or corn, and Asians around rice. Colder countries, like Scotland, have relied on heartier grains such as oats and barley. Special foods that people eat on holiday occasions are also related to ethnic background. For example, many families have special food practices associated with festivals and days of significance.

The school community can help youth learn about the differences in peoples’ eating habits, likes and dislikes, and culture. This learning helps to support the diversity in healthy eating patterns. Students can learn that people from other parts of the world can choose different, nutritious foods (e.g., bread, rice, tortillas or roti). Parents are usually interested in sharing ethnic food and recipes. Discussion in the classroom about different foods can enable each youth to feel individually involved by including foods that relate to their own eating habits.
Before discussing the food practices of multicultural groups, understand their value systems. Food habits are greatly influenced by a group’s values and the perception of healthy foods differs from one cultural group to another. On occasion, because of family, culture, and religious reasons, some children may not eat foods from the four food groups, but still meet their nutritional needs. It is important that you do not make the students feel that one value system and food practice is superior to another.

When there is discussion around cultural foods:

- Do not assume that students from a particular group have or have not adopted the food and dietary practices of the general Canadian population. Ask students to share their family’s food practices and eating patterns.
- Ask questions with an open mind – don’t be judgmental; youth sharing food experiences can help establish trust, as well as knowledge, among classmates.

To support your teaching efforts in the classroom, translated copies of *Eating Well with Canada’s Food Guide* are available. Visit Health Canada, [www.healthcanada.gc.ca/foodguide.ca](http://www.healthcanada.gc.ca/foodguide.ca) for more information.

### 2.4 Family and Traditions

Parents are children & youth’s most important source of information and influence for healthy eating. Parents shape their children & youth’s eating behaviour in a variety of ways: by the choice of an infant feeding method (i.e., breastfeeding or formula feeding), by the foods they make available and accessible, by direct modelling influences, by the extent of media exposure in the home, and by the way they interact with children & youth in the eating context (Birch and Fisher, 2006).

**a) Parental role-modelling** is important in establishing children & youth’s food choices. Depending on their own food choices, parents can either be positive or negative role models (AHA et al., 2006). An example of positive role-modelling is when parents eat breakfast daily; it’s likely that their children will do the same. Meanwhile those who reward children with high-fat/ high-sugar foods or restrict the intake of such foods, generally have children who develop an increased preference for these foods. Modelling certain behaviours may play a role in the emergence of dieting activities in childhood and adolescence. For example, research suggests that dieting daughters are likely to have dieting mothers and that parents who report problems in controlling their eating are likely to have daughters who show similar patterns (Birch and Fisher, 2006).

**b) Family meals** can have a positive influence on children and youth food selections. Family eating patterns include what, when they eat, where they eat and why they eat. These eating patterns accommodate the schedules, family size, and activity levels of different members. Families that eat meals together are associated with higher intakes of vegetables and fruit, milk products and improved nutrient intakes (Taylor et al., 2005). Children who eat together with the family have also been shown to have healthier eating habits (Gillman et al., 2000), do better in school, and have more self-esteem (Eisenberg et al., 2004).
c) **Family income** is another factor that influences what children & youth eat and the food choices that are available to them. Everyone has a right to access healthy foods. However, due to a variety of reasons, families might not have the means to offer healthy choices at home.

Food security is said to exist when people can get enough food to eat that is safe, that they like to eat and that helps them to be healthy. They must be able to get this food in ways that make them feel good about themselves and their families (Ontario Public Health Association, 1995).

There are many reasons why families may not have enough money to obtain food. Factors that affect the ability to shop for and prepare nutritious foods include: inadequate household income, lack of time, lack of knowledge and skills, a single parent household, etc. High unemployment, low incomes for the working poor, high housing costs, transportation and other basic necessities, and inadequate social assistance payments all contribute to the poverty which limits access to a healthy diet (OPHA, 1995). Low literacy levels, a lack of opportunities for skill development and lack of childcare make it difficult for people to access healthy food (OPHA, 1995).

It is important for teachers and other school community members to be sensitive to the fact that the foods students bring to school (e.g., in lunch bags, for snacks) will be influenced by the home situation and the level of food insecurity experienced by their parents and caregivers.

Well-documented research shows that there is a clear link between good nutrition and school performance (Ontario Society of Nutrition Professionals in Public Health, 2004). Well-nourished students do better and behave better in school.

Students may come to school hungry because they have missed breakfast, have forgotten their lunch or their family is unable to consistently provide lunch. Hunger affects students in various ways. Some may become tired while others may become hyperactive. Other warning signs may include aggressive behaviour, irritability, high anxiety, depression, difficulty concentrating, stealing food, short attention span, hyperactivity, and anti-social behaviour. Keep in mind these warning signs may instead indicate an underlying medical condition such as diabetes, an eating disorder or allergies.

**Actions You Can Take if a Child is Hungry**

- Speak to the parent/caregiver to try and determine why the student might be hungry.
- Offer the student an opportunity to eat part of their lunch or snack before the next scheduled snack or meal.
- If your school has an emergency food pantry, offer the student a snack until they can have their next meal. Stock the pantry with non-perishable food items from each of the four food groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives. Consider storing perishable milk products in the school’s refrigerator if space allows.
- Contact your local public health unit/department for more information about community food programs that can assist the family.
- If hunger is a chronic issue for the student and their family, speak to the principal about other options for support.
2.5 Peers

Although youth may identify with their family, positive role modeling of healthy eating can also come from youth’s friends and classmates. Peer pressure influences children of all ages. Acceptance in a peer group can depend on eating, liking and doing the same things as the others in the group. If youth see their classmates and friends enthusiastically eating healthy foods such as fresh fruit and vegetables, they will be more willing to enjoy them as well. Offering healthy choices for classroom celebrations provides the perfect opportunity for youth to socialize and role model healthy eating behaviour with each other.

2.6 Volunteers and Professionals Who Work with Youth

Positive role modeling of healthy eating and positive body image by adults working with youth encourages students to value and enjoy healthy eating and promotes student preferences for healthy foods and beverages (Creating a Healthy School Nutrition Environment Health Unit Collaboration, 2007). Teachers, along with other school community members (e.g., secretaries, coaches, custodians, and school bus drivers) can have powerful effects on youth through the example they set. Outside the school environment, camp leaders, coaches and others who work with youth can also strongly support or hinder what they know about healthy eating and healthy living.

It is important for all adults, including parent volunteers, to reinforce the healthy eating education learned in the class, during class trips or at special events. For example, encourage them to pack nutritious lunches or drink water instead of pop. Discourage the use of foods as a reward for good behaviour; instead, offer a class reward such as extra physical activity time upon return to the school.

2.7 School Environments

In addition to providing opportunities for academic learning, schools have the capacity to enhance students’ health, self-esteem and development of lifelong skills and healthy eating behaviour. Schools are one of the most effective and efficient ways to reach almost all children & youth, school personnel and families (World Health Organization, 1998).

It is important to help your school create an environment that supports healthy eating. A Healthy School Nutrition Environment is one where students can get the same message about food, nutrition and healthy eating wherever food is served – in the classroom, in the school and at home. An environment that supports healthy eating may influence the youth’s preference for certain foods. For example, research has shown that children consumed more fruit and vegetables when schools served such foods. The authors concluded that the extent to which fruit and vegetables are made available and accessible to children may shape children’s liking for consumption of those foods (Birch and Fisher, 2006).
A healthy school nutrition environment contains nine essential elements (OSNPPH, 2004). Below is a list of the elements along with some questions to think about to help in practicing all nine elements.

10. Provide healthy, reasonably priced and culturally-appropriate food choices. For example when you have a classroom party, are healthy food choices offered? Do you reward children with non-food rewards?

11. Encourage positive role modeling of healthy eating by school staff and volunteers. Do you eat and drink healthy foods and beverages when in the presence of students?

12. Offer daily universal Student Nutrition Programs. Does your school have a snack or breakfast program?

13. Ensure safe food practices and allergy-safe surroundings. Do you monitor how the food-safe policy is being followed?

14. Schedule nutrition breaks at appropriate times. Are students getting a full 20 minutes to eat their lunch?

15. Implement school food and nutrition policies. Does your school have a food and nutrition policy that addresses all foods and beverages being sold or offered in school?

16. Offer nutrition education for staff. Do you participate in professional development opportunities on nutrition?

17. Offer nutrition education for students. Do you have up-to-date nutrition resources to support the healthy eating expectations in the curriculum? Are you spending enough time teaching the healthy eating expectations from the curriculum?

18. Provide student, parent and community education about healthy eating? For example, do you include nutrition activities that involve students’, parents and families?

Some of these elements can be directly influenced by teaching staff.

To learn more about healthy schools, contact your public health unit and/or visit www.osnpph.on.ca and click on New Publications Call to Action: Creating a Healthy School Nutrition Environment.

2.8 Media Messages

The media has significant influence on youth and food choices. Companies deliberately target this age group because they have money to spend, can influence their parents shopping decisions, and will eventually become adult consumers.

There are different marketing strategies that companies use on their target groups. Internet sites aimed at children and youth include advertising as part of interactive games, contests and free promotions. Online surveys provide marketing information which help companies understand what influences youth and how to sell to them. Endorsements by celebrities and sports stars promote brand loyalty.

The majority of food advertising has a negative effect on youth’s health by making high fat, high sugar foods more desirable. Content analyses of television advertisements have shown that food is the most frequently advertised product category on children’s television, and the majority of
these ads target highly sweetened products and are increasingly promoting fast food meals (Coon et al, 2002).

Teaching media literacy helps students learn how to critically analyze the intention of media messages. Schools can resist the influence of corporations that market unhealthy foods by avoiding: offers of teaching materials, fast food for fundraising, financial support for children’s events, and promises of school equipment and vending machine contracts that include unhealthy foods and beverages.

3. Physical Activity and Youth

Healthy eating and regular physical activity play important roles in growth and development. Both are important components of a healthy lifestyle. Healthy eating provides the energy required for physical activity. Regular physical activity provides young people with opportunities for increasing their self-esteem and appreciation for their own bodies.

Regular physical activity in adolescence helps to develop cardiovascular fitness, strength, flexibility and bone density. Encouraging youth to build physical activity into their daily routine helps to create a healthy pattern for a lifetime. Every youth, no matter their age, height, weight, natural abilities or skills, needs to be physically active to be healthy and strong. Everyone has different interests, abilities and strengths, and need to be introduced to a variety of activities. It is important for youth to know that sports are not the only way to stay active. Identifying other non-competitive activities is essential.

Activity ideas include:

- Building a snowman
- Skating
- Swimming
- Roller-blading
- Bowling
- Chasing the dog
- Climbing trees
- Tobogganing
- Throwing a Frisbee
- Playing catch

What is Active Living?

Active living promotes a way of life in which physical activity is valued and integrated into daily life, whether it’s taking the dog for a walk or riding your bike to the store. It stresses the importance of doing moderate activities that feel good and fun. It is more than fitness and sport - it is a commitment to a healthy mind, spirit and environment, all linked through physical activity. Active living encourages people of all ages to get up and get moving. Canada’s Physical Activity Guide to Healthy Active Living supports the concept of active living.
When fun and enjoyment are part of skill development and physical activity, youth are more likely to develop a positive attitude towards active living. Parents and educators can play a role in promoting this message. Children need to be given both encouragement and the opportunities to get up and move. Integrating physical activity as an enjoyable part of a daily lifestyle helps to prevent heart disease, bone disease and other health conditions. Young people who are physically active are also less likely to smoke, drink, or do drugs, and more likely to have healthy eating habits (Prince Edward Island Healthy Eating Alliance, 2005).

**Benefits of active living**

- Improved fitness
- Better sleep and more alert
- Fun
- Healthy body weight
- Healthy heart and lungs
- Relaxation
- Optimal learning ability
- Positive feelings about self / self-confidence
- Strong muscles and bones
- Flexibility
- Good balance and posture

**How much Physical Activity should Children and Youth get?**

*Canada’s Physical Activity Guides for Children and Youth* provide a set of national guidelines to help children and youth improve their health through regular physical activity. The Guides recommend children and youth:

- Increase the amount of time currently spent doing physical activity by 30 minutes per day in periods of 5-10 minutes. Over several months, children and youth should try to accumulate over 90 minutes of physical activity per day.
- Reduce non-active time spent on sedentary activities like watching TV, videos, ‘surfing’ the Internet and playing computer games, starting with at least 30 minutes less per day and eventually trying to eliminate at least 90 minutes of non-active time.

**Types of Physical Activity**

There are three different types of physical activities that help keep the body healthy: endurance, flexibility and strength. A variety of each type of activity will provide the most health benefits.

**Endurance activities** help the heart, lungs, and circulatory system stay healthy and also provide more energy. These activities make you breathe deeper, your heart beat faster, and make you feel warm. Examples include walking, cycling, skating, taking the stairs and dancing.

**Flexibility activities** help move the body easily, keep muscles relaxed and joints mobile. This involves gentle reaching, bending, and stretching all of the muscle groups. Examples include bowling, curling, gardening and yoga.
Strength activities help the muscles and bones stay strong and improve posture. Examples include lifting weights, wearing a backpack carrying school books, carrying groceries, and exercises like abdominal crunches and push-ups.

**Physical Activity at School**

The Ministry of Education supports and promotes the participation of students in Daily Physical Activity (DPA) and has implemented a policy on this, entitled, Policy/Program Memorandum No. 138, “Daily Physical Activity in Elementary Schools, Grades 1–8”, October 6, 2005. This policy requires that all students in Grades 1 to 8, including students with special needs, to be provided with opportunities to participate in a minimum of twenty minutes of sustained moderate to vigorous physical activity each school day during instructional time. The goal of DPA is to enable all elementary students to improve or maintain their physical fitness and their overall health and wellness, and to enhance their learning opportunities.

The electronic versions of *The Ontario Curriculum, Grades 1–8: Health and Physical Education, 1998*, which are posted on the Ministry of Education website at [http://www.edu.gov.on.ca](http://www.edu.gov.on.ca), have been revised to reflect this requirement. On this website, there are also a variety of DPA resources available as PDF files for teachers to download.

Teachers can play a large role in teaching students about the need for physical activity. Teachers can create a classroom environment that values physical activity by including DPA or other related activities and by encouraging students to try something new. Introduce new activities and let them try them in the classroom. You may want to initiate a class physical activity project for a week or month, in an effort to get them to be more active every day. The most important result is that students find physical activity fun! Do not make physical activity a punishment, for example having them miss recess or doing laps around the track, as this will take the fun right out of physical activity!

### 4. Factors Influencing Body Shape and Size

Steps towards a healthy lifestyle include:

- Eating the recommended amount and types of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium).
- Being active every day.

Healthy people come in a variety of shapes and sizes. Adolescents’ weight and shape are influenced by many factors, including heredity and puberty. A Body Mass Index (BMI) is a tool that is not suitable for growing children and teenagers. Instead, health care providers use the BMI-for-Age growth charts to track their progress over time.
4.1 Heredity

It is important that youth understand and appreciate that they are individuals with unique physical characteristics, personalities, and natural abilities. Discuss students’ personality and physical traits compared to their siblings, parents and grandparents. Just as eye, hair and skin colour are genetically determined, to a certain degree, so is body weight and shape.

Unfortunately, many youth compare themselves to their peers and to unrealistic media images, becoming pre-occupied and dissatisfied with their weight and shape. They may begin to restrict their eating in an effort to lose weight and change their body shape. Professionals need to focus on strengthening children’s self-esteem and helping them understand and accept that, to an extent, their bodies are programmed to be a certain size and shape. By recognizing and appreciating their genetic background, youth can learn to be comfortable with their own bodies and develop a good sense of self. Teachers and parents should promote physical activity and healthy eating as a way of taking good care of oneself, rather than being used as tools for weight loss. All students, regardless of size, should be encouraged to enjoy a variety of foods, while practicing moderation; and to participate in regular physical activity for fun and to feel healthy, energetic and fit.

4.2 Hunger and Satiety Cues

All human beings are born with the ability to eat when their body is hungry and stop when they feel full. Babies and small children are in tune with these hunger and satiety cues. Unfortunately, as children grow older they may learn to ignore these internal cues due to restrained eating or weight loss dieting. When people are insensitive to their feelings of hunger and satiety they are more likely to engage in disordered eating.

Parents and teachers can encourage and respect children’s natural abilities to recognize hunger and fullness. Adolescents need to eat adequate amounts of food to sustain rapid growth during puberty. Regular snacks maintain their energy and help them reach their learning potential. Teachers can discuss with students:

- How they feel when they’re hungry; (i.e., stomach grumbles or hurts, they feel tired, cranky, restless, etc.)
- How they know when they’ve had enough to eat (i.e., feel ‘full’; not interested in eating anymore)
- That it’s ‘normal’ for people to occasionally overeat (e.g., holiday meals)
- Sometimes we eat when we’re not hungry (e.g., for emotional reasons—boredom, sadness; a favourite food or treat is appealing; it’s lunch or dinner ‘time’, etc.)

School Policies

Some schools have developed policies that allow students to eat healthy snacks in class. Policies include statements such as when, where and what type of foods/drinks are allowed. Allowing healthy snacks in class promotes the importance of eating well and listening to the body’s hunger and fullness cues, which helps individuals to achieve and maintain a healthy weight.
4.3 Puberty

During puberty, adolescents undergo a growth spurt, gaining 20% of adult height and 50% of adult weight. For girls, this usually begins at 8 to 10 years of age, and for boys 11 to 13 years of age. Some children will grow taller before they gain weight and have a thin, long legged appearance. Other children gain weight before they gain height, often developing weight around their middle. This may cause the child, parent or teacher to worry that the child is ‘getting fat’ which may result in adults encouraging a child to eat less or exercise more. This type of concern can lead to weight preoccupation and restrictive dieting at a time when children need optimal nutrition for growth and development. Furthermore, dieting practices can trigger weight gain (Field et al, 2003), interrupt normal physical growth (Lock, et al, 2001) or set the stage for more disturbed levels of eating (Hsu, 1997). See section 8.2 Why is Restrictive Dieting a Concern.

Girls
Between the ages of 9 to 16, girls gain on average 2-5 kg. (5-10 lbs.) every year (National Centre for Health Statistics, 2000). Girls require 18-22% body fat in order to begin menstruation (Frisch, 1990) and mature sexually. When talking about puberty and menstruation, it’s important that weight gain is discussed and that girls understand this is a normal expectation. Puberty becomes a particularly difficult time for girls because their natural weight gain moves them away from the ideal thin body shape and size promoted by society and the media. This can negatively affect girls’ self-esteem and body image. Early maturing girls are at further risk for body dissatisfaction (Ohring et al., 2002) because they are more apt to naturally gain weight before later maturing peers, and are more likely to receive sexual teasing and attention when they are still emotionally immature.

Boys
Boys may also gain weight around their middle or develop enlarged breasts due to hormone levels and increased body fat during puberty. This can be very embarrassing for boys, especially if asked to remove their shirts in physical education class as a way of differentiating between teams (‘skins’ vs. ‘shirts’). Boys naturally grow bigger, stronger and more muscular during adolescence which follows the cultural ideal for males. However, with the unrealistic standards shown in the media, boys may experience dissatisfaction too, because their bodies are unlikely to develop to the extent they want.
5. **Self-Esteem During Puberty**

Self-esteem is the confidence and satisfaction a person has in oneself. It determines how worthwhile, valuable and competent we feel we are. Self-esteem develops from birth through experiences and relationships within the family and continues to be influenced by the significant people in one's life. Supportive parents, teachers, coaches and friends are the key to maintaining and enhancing healthy self-esteem.

Adolescence is a time of transition and confusion, during which boys and girls often experience decreased self-esteem. However, girls’ self-esteem tends to drop further than boys during adolescence (Orenstein, 1994). This may be due in part to the socialization of girls that focuses on their appearance and the need to seek approval from others as a means of defining self-worth.

**Factors Influencing Self-esteem:**

- Social skills
- Relationships
- Talents
- Intellectual abilities
- Interests
- Personal characteristics (e.g., kindness, honesty, humour)
- Physical appearance

**Tips for Strengthening Self-esteem:**

- Encourage students, especially girls to develop interests and abilities in a variety of areas, like sports, education, hobbies and clubs. This helps youth recognize that their appearance is only one aspect of themselves.
- Acknowledge and compliment students on their skills, abilities and character.
- Challenge students to think of things they like about themselves beyond physical appearance (e.g., swimming skills, musical talents, friendship skills).
- Help youth develop skills for coping with the stresses of adolescence, rather than turning to dieting and over-exercise as a way of feeling in control of their lives.
- Teach skills related to friendship, communication and stress management.
- Listen to students concerns and feelings about their changing bodies.
- Encourage students to talk to parents and trusted adults to help sort through problems.

Strong self-esteem helps students cope with stress and anxiety; enables them to be more resilient in difficult times and helps them make healthy choices (O’Dea, 2005). Students who feel good about themselves are less likely to engage in risk-taking behaviours such as disordered eating, smoking, drugs, alcohol and early sexual behaviour.
6. Body Image during Puberty

Body image is part of self-esteem. It’s a person’s perception of their body size, shape, and attractiveness. It also includes a person’s attitudes and feelings about their body and how they think others see them.

Body Image Dissatisfaction
Adolescents often become preoccupied and dissatisfied with aspects of their appearance and may think their peers notice and dislike these aspects too. Furthermore, increasing numbers of adolescents are also dissatisfied with their weight and shape. Research shows that early adolescence is a risky time for developing body image dissatisfaction and disordered eating (Smolak et al., 1996; Levine et al., 2006). These behaviours may be triggered by common stressors that adolescents experience. As a way of coping, some youth turn to dieting in an attempt to achieve an ‘ideal’ body and gain control over their rapidly changing lives.

Stressors Contributing to Body Image Dissatisfaction and Disordered Eating:
- Physical changes of puberty such as gaining weight and increased body fat in girls
- Peer pressure from friends who diet
- Social pressure to ‘fit in’ and be accepted (girls are supposed to be ‘beautiful’ and thin; boys are socialized to be ‘strong’ and ‘macho’)
- Developing feelings of attraction and wanting to impress
- Teasing and harassment—kids may suffer from rude comments about their weight, body shape, eating habits, race, culture, etc.
- School transitions—moving to middle school is a significant adjustment
- Misinterpretation of health messages—‘good’ foods vs. ‘bad’ foods; eating fat is ‘bad’; obesity messages about the dangers of gaining weight and the need to ‘lose weight’ (O’Dea, 2005)
- Influence of the media with its unrealistic expectations for appearance, weight and shape

6.1 Media and Body Image

Media has a powerful influence on how young people view themselves. The ‘ideal’ look portrayed in the media makes people feel inadequate and unhappy with their bodies. Research suggests that up to 80% of girls and women and 40 to 60% of males in our society are dissatisfied with their bodies. (http://research.aboutkidshealth.ca/thestudentbody/home.asp)

Advertisers go to great lengths to sell products and convince people, especially women, that their bodies are never good enough. Advertising promotes the false belief that everyone can achieve the ‘ideal look’ if they just work hard enough and buy the right products (e.g., cosmetics, hair products, clothes, exercise equipment, supplements and diets).

The female models that are used to sell products are typically tall, thin, young, white, and appear perfect. Male models are lean, muscular and equally ‘perfect’ in their appearance. Youth struggle to achieve a similar look, but the image isn’t even real.
In Reality…

- Specialized photographic techniques and computer technology alter the models appearance to create a look that is flawless.
- Body features are enhanced with props, lighting angles and computer techniques.
- Shapes and sizes are altered.
- Blemishes, freckles, lines, wrinkles, skin folds and other unwanted features are edited out.
- Body parts or features from photos of different people are combined to create the ‘perfect’ image.
- ‘Body doubles’ are common in films when body parts of lead actors don’t measure up to the ‘perfect’ image.
- Photo images can be completely computer generated to fit the popular look of the day.

Source: Adapted from Region of Peel (www.bodyimagecoalition.org).

Media Literacy Can Help
Teaching media literacy can help students recognize that media images are unrealistic and manipulated to create perfection. This understanding can improve students’ body image and decrease their risk of eating problems (O’Dea, 2005). Media literacy has also been shown to help improve self-esteem and reduce unhealthy dieting in young adolescent girls (McVey et al., 2003). See the ‘Additional Resources’ section for resources related to media literacy.

6.2 Girls and Body Image

During adolescence, youth have a strong need to belong and feel accepted. Girls in particular get conflicting and unhealthy messages from our society, media and peers about what it takes to be popular and fit in (Friedman, 1997). Young adolescents often become interested in reading teen or fashion magazines, which are correlated with body dissatisfaction (Jones et al., 2004). Studies show that girls compare themselves to media images and feel worse about themselves as a result (Then, 1992).

Another complicating factor is that during puberty, girls naturally put on weight and gain body fat which goes against the cultural ideal of a thin, ‘beautiful’ body. This makes adolescence a risky time to develop unhealthy eating patterns, negative body image and poor self-esteem as girls strive to achieve an unrealistic ‘ideal’ standard of beauty.

In Western society, the thin ‘ideal’ standard of beauty represents attractiveness, success, and self-control. However, over a hundred years ago, full, rounded figures were considered beautiful and fashionable. The poster shown here is an advertisement used by a department store in San Francisco in 1891. The ideal woman was ‘plump’ and if you weren’t, then you could eat ‘fat-ten-u foods’.
The table below summarizes the popular look of the day for women over the decades.

<table>
<thead>
<tr>
<th>The Era</th>
<th>The Fashionable Look for Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800’s</td>
<td>A large body is a sign of health and fertility. Corsets narrow the waist and enhance the bust.</td>
</tr>
<tr>
<td>1890’s</td>
<td>Actress Lillian Russell at 200 lbs. or 91 kg is the most celebrated beauty of the time.</td>
</tr>
<tr>
<td>1910’s</td>
<td>Paris designer creates slim sheath dresses, declares that breasts are “out”.</td>
</tr>
<tr>
<td>1920’s</td>
<td>Era of the flat-chested, slim-hipped flapper. First dieting craze of the 20th Century begins.</td>
</tr>
<tr>
<td>1950’s &amp; 60’s</td>
<td>Voluptuous full figured shapes of Marilyn Monroe and Jayne Mansfield are popular.</td>
</tr>
<tr>
<td>1967</td>
<td>British model Twiggy (5’6” or 168 cm. and 91 lbs. or 41 kg.) arrives on the scene – and the diet industry explodes.</td>
</tr>
<tr>
<td>1970’s &amp; 80’s</td>
<td>Models gradually become taller, thinner and begin to show toned muscle definition. Breasts make a fashion come-back. Models in the 1970’s weighed 8% less than the average woman.</td>
</tr>
<tr>
<td>Early 1990’s</td>
<td>Waif-like figure of Kate Moss presents a wasted ‘heroin chic’ look and a pre-teen body.</td>
</tr>
<tr>
<td>Late 1990’s</td>
<td>Tall, very thin models with no visible body fat and muscles highly toned by hours of working out. Large breasts remain in style – but are rare in this body type without the help of breast implants. By the 1990’s models weighed 23% less than the average woman.</td>
</tr>
<tr>
<td>2000 and beyond</td>
<td>Real bodies come in all shapes and sizes….set your own trend!!!!</td>
</tr>
</tbody>
</table>

Source: Adapted from Region of Peel (www.bodyimagecoalition.org)

6.3 Boys and Body Image

Body dissatisfaction and unhealthy eating habits among males are becoming more common (Woodside, 2002). Like girls, boys are also affected by pressure to be a certain shape based on current ideals. Fitness, muscle and body sculpting magazines and products increasingly target young men. Advertisers often show male models with bare chests, depicting the ‘ideal’ male body as being lean with broad shoulders, defined upper body muscles and a ‘six pack’ abdomen. Boys may feel pressure to achieve this look and experiment with unhealthy weight control methods and extreme forms of exercise or weight training, which can cause physical damage to muscles and bones. A number of teen boys will turn to steroids to build muscle.

Steroids

About 8% of boys in grade 9 and 10 used anabolic steroids (Boyce, 2004). Some are trying to improve their performance in sports; others want to change their physical appearance. ‘Anabolic-androgenic steroids’, commonly referred to as anabolic steroids are manufactured drugs designed to have an effect similar to testosterone, the male sex hormone. These steroids have two main effects; ‘anabolic’ or muscle building which is the result most users are looking
for and ‘androgenic’ or masculinising effects. The androgenic effect causes the body to become more masculine resulting in facial hair and a deeper voice, even if the user is female. Steroids may be taken orally, in a gel or cream applied to the skin or injected intramuscularly.

Health hazards associated with short term use of steroids:

- Stunted growth, especially when used during adolescence
- Increased irritability and aggressiveness
- Severe facial and body acne
- Baldness
- Bloated appearance
- Changes in sex drive, impotence and decline in sperm production

Some of these effects are reversible but long term effects are unknown.

6.4 How Teachers can Promote Positive Body Image

1. Be a positive role model
   - Be aware of the messages you send about your own body and the comments you make about other people's bodies.
   - Refute common stereotypes and prejudices.
   - Celebrate multicultural diversity in beauty, body weight and shape.
   - Discourage youth from weighing themselves.
   - Never reward with food or withhold it as punishment.

2. Help youth celebrate their bodies
   - Focus on what bodies do well rather than what bodies look like.
   - Teach students the joy of being active and to notice how their bodies feel and perform.
   - Focus on positive non-appearance traits (e.g., being caring, friendly, or musical).
   - Stress that there isn’t an ‘ideal’ body shape and that people come in all shapes and sizes.
   - Teach them ways of coping with put downs and negative comments.
   - Explain that their bodies will change and grow, especially during puberty and that weight gain is natural and normal at this time.

3. Promote a supportive school environment
   - Weighing students or using fat callipers should not be done in schools
   - Discuss media pressures and the ideals of the popular culture
   - Provide activities that promote an individual’s self-esteem without focusing on appearance
   - Set standards for respectful behaviour with their peers—no bullying or harassment
   - Encourage students to eat according to their feelings of hunger and fullness
   - Encourage youth to participate in enjoyable physical activity

Source: Adapted from the Body Image Coalition of Peel (www.bodyimagecoalition.org)
7. Obesity

Obesity is a complex condition that is not well understood. There are many theories as to why the prevalence of obesity is increasing in children and adolescents. Heredity, the food supply, eating habits, physical activity levels, labour saving devices, culture, and socioeconomic and psychological factors all have an effect on the regulation of appetite, satiety, and how calories are used or stored as fat. The tendency to gain weight may vary from one person to another, even when food intake, physical activity and lifestyle appear to be the same.

Overweight or obese students have a greater risk of developing type 2 diabetes and cardiovascular problems. However, overweight adolescents are also at increased risk for depression, poor body image and reduced self-esteem. (Braet et al., 1997; Erermis et al., 2004; Sjoberg et al., 2005). Overweight and obese students experience bullying and ‘jokes’ about their weight and are often excluded from social situations, which can lower self-esteem. Due to the strong social stigma about being overweight, overweight students are at increased risk of:

- Using dangerous weight loss methods
- Binging as a result of hunger and food restriction and as a way of coping with poor treatment by others
- Weight gain due to binging
- Eating disorders

Overweight adolescents should not be put on a diet. As with all students, encourage overweight individuals to pay attention to their hunger and fullness cues; use Canada’s Food Guide as a tool to make wise food choices and participate in enjoyable, sustainable physical activity. Do not make weight-related comments, give advice about weight loss or treat large students differently than thinner students. Overweight or obese students need support and understanding to make healthy choices and take good care of themselves.

For more information about obesity contact your local health unit/department. Contact info can be found at: www.alphaweb.org/ont_health_units.asp.

8. Disordered Eating, Dieting and Where to Get Help

In the past, it was believed that teaching students about the details and dangers of eating disorders or having a guest speaker talk about their recovery would serve as a warning for youth. However, research has shown that this approach can actually glamorize the process, not to mention the possibility of teaching students new weight change techniques they hadn’t thought of.

Teaching Tips:

- The focus should be on prevention strategies and promoting health for every student, regardless of size. (See section 6.4 How Teachers can Promote Positive Body Image)
- If students ask specific questions about eating disorders, keep the discussion away from signs and symptoms.
• Discuss the pressures and difficulties students face that may cause them to turn to dieting or to develop **eating disorders** as a way of coping. (See section 6. Body Image During Puberty)

• Weighing students (or using fat calipers) should be done by health professionals and is not generally recommended in a school setting. It is emotionally damaging and may lead students to begin restrictive dieting which is harmful to their health and well-being.

### 8.1 Healthy Eating vs. Disordered Eating - What’s the Difference?

It’s important to distinguish the difference between healthy eating and disordered eating.

**Healthy eating** means:

- Recognizing internal hunger and satiety cues; eating when hungry and stopping when full or satisfied.
- Eating three meals a day plus snacks in-between to satisfy hunger.
- Enjoying food as a natural, pleasurable part of life and having a healthy appetite.
- Not feeling guilty for eating certain foods.
- Generally eating the recommended amount and type of food from Canada’s Food Guide, while limiting foods and beverages high in calories, fat, sugar, and/or salt.

**Disordered eating**:

- Can be thought of as a continuum of inappropriate or abnormal eating behaviours usually practiced in order to lose or maintain body weight.
- May be used as a way to relieve stress or deal with uncomfortable emotions.
- Includes consistent over or under-eating and restrictive dieting; with **eating disorders** being at the extreme end of the continuum.

**Disordered Eating Behaviours**

Instead of using **hunger and satiety cues** to guide their eating behaviours, people with **disordered eating** may:

- Drink lots of water or diet pop to delay eating
- Skip meals or deliberately under-eat
- Regularly eat ‘no fat’ or very low fat foods
- Count calories or grams of fat or carbohydrates
- Smoke cigarettes to curb their appetite
- Avoid eating nutritious foods such as milk products and meat because they contain some fat
- Practice restrictive dieting
- Over-exercise
- Practice purging behaviours (e.g., using vomiting, laxatives and enemas)
- Overeat and binge
8.2 Why Restrictive Dieting is a Concern

Restrictive dieting is a form of disordered eating. Dieters may cut out an entire food group (e.g., Grain Products) in the belief that the food group is ‘fattening’ or avoid other healthy foods because they contain some fat.

Did you know that 25% of Canadian boys and 30% of girls between 10-14 years of age are dieting to lose weight, despite being within a healthy weight range? (McVey et al., 2002; McVey et al., 2004; McVey et al., 2005).

Dieting behaviours have become increasingly common in schools. We live in a society that is obsessed with thinness and fearful of gaining weight. Dieting is often seen as an acceptable behaviour but there are many problems associated with it.

Problems with restrictive dieting:

- Difficulty learning and concentrating due to a lack of calories and nutrients.
- Risk of undernourishment and health problems (e.g., inadequate calcium intake decreases bone mass which can eventually lead to osteoporosis; iron deficiency anaemia).
- Dieters lose touch with internal hunger and satiety cues which can lead to over-eating and bingeing due to feelings of hunger, low energy and depriving oneself of desired foods.
- Dieters crave ‘restricted’ foods (i.e. high-fat, high sugar foods) and may eat to the point of feeling ‘stuffed’.
- Weight gain due to bingeing.
- Metabolism slows down during dieting which makes it hard to lose more weight and easy to gain when the diet is finished.
- Body composition changes during dieting. Muscle and fat are lost, but the weight gained back is fat. Since muscle tissue burns more calories than fat, losing muscle tissue decreases metabolism.
- Emotional concerns such as feelings of failure, low self-esteem, and increased stress.
- Social issues including social withdrawal, relationship problems, and depression.
- Increased risk of eating disorders.
- Increased risk of obesity due to slower metabolism, and body composition changes. Some people look back at the end of many years of dieting and realize that they weren’t that big when they started dieting but have gained weight over the years.

8.3 Over-eating and Under-eating

When people ignore and eventually lose touch with their internal hunger and satiety cues, they may develop a pattern of consistently over-eating or under-eating. These behaviours may lead to eating disorders and/or obesity. Occasionally eating too much such as during a holiday dinner is quite normal. Over-eating on a daily basis, past the point of feeling satisfied and beyond the body’s growth and maintenance needs may lead to obesity. Eating less food on a daily basis than the body needs for energy, growth and maintenance may lead to under nourishment/anorexia.
Factors contributing to over-eating:

- Losing touch with hunger and satiety cues; bingeing as a result of dieting.
- Poverty and food insecurity. People who go hungry for periods of time, such as those on Social Assistance or using food banks, naturally tend to binge when food does become available.
- Waiting until feeling ‘starved’ before eating can lead to binging and overeating. People eat very quickly and can easily eat past their ‘stopping point’ of feeling satisfied. People are also more likely to make poor food choices, reaching for convenient high fat, high sugar foods.
- Eating as a way to relieve stress or deal with emotions such as anger, anxiety, boredom or loneliness.
- Eating in front of the TV or while engaged in another task distracts people from recognizing feelings of satisfaction.

Factors contributing to under-eating:

- Dieting and other disordered eating behaviours (see list above).
- Poverty and food insecurity.
- Being pressured to eat more food than a person is hungry for, or eating food that is less appealing can cause people to lose touch with their feelings of hunger.
- Being too busy or distracted to take time to eat.

8.4 Sports Dieting

Athletes often want to reduce their body weight in order to compete at a lower weight class, improve appearance for the judges, or achieve perceived improvements in performance. Athletes who try to lose weight rapidly may engage in harmful practices that compromise their athletic performance or may go on to develop an eating disorder. Many dietary recommendations for athletes have not been proven to enhance athletic performance. For example, a high protein diet that is meant to build muscle may, in fact, build fat stores in the body. High protein diets also put a strain on the liver and kidneys and the long term affects are unknown.

A healthy approach for athletes is to:

- Follow Canada’s Food Guide to get the right balance of nutrients (carbohydrate, fat, protein, vitamins, minerals and water).
- Choose enough servings from each food group to ensure that adequate calories are consumed.
- Consume fruit, vegetables, breads and grains to provide carbohydrates which are the primary energy source for exercising muscles.

Most diets are fad diets and tend to be nutritionally unbalanced with respect to Canada’s Food Guide and often lack sufficient calories for adolescent growth and development. In contrast, specialized clinical or ‘therapeutic’ diets are necessary for some medical conditions, but these meal plans are nutritionally balanced and usually prescribed by a registered dietitian or doctor.
Over-exercising
Over-exercising is often associated with disordered eating or an eating disorder. It is characterized by exercising frequently, intensely, or compulsively for long periods of time, to compensate for food eaten recently or food that will be eaten in the near future. Over-exercisers define their self-worth in terms of athletic abilities yet are rarely satisfied with their performance. Individuals will exercise even when ill or injured and feel guilty if they miss a workout. They often like to exercise alone and will give up time from school and relationships to do so.

8.5 Where to Get Help for Students
If you have concerns about a student’s disordered eating or suspect they may have an eating disorder:

- Consult with your school principal or guidance counsellor.
- Access community resources and services by talking to your school nurse or contacting your local health unit/department. (www.alphaweb.org/ont_health_units.asp)
- For more information or support services contact the National Eating Disorder Information Centre www.nedic.ca. (or see Additional Resources)

When expressing your concerns to a student/their family:

- It’s important to be informed of and follow your school’s procedures
- Students and parents may not appreciate your concern at first and may be in denial or respond with anger. See the ‘Give and Get Help’ section at www.nedic.ca for discussion tips.
- Although your concern and support for the individual and their family are important, don’t try to take on the role of a therapist

8.6 Professional Development
The Ontario Community Outreach Program for Eating Disorders www.ocoped.ca offers a workshop for teachers on the prevention of body image concerns and eating problems. Workshops are led by experts in the field of eating disorders and include resources for classroom or group settings.

Grades 6-8

- Body Sense: Promoting Positive Body Image in Sport www.bodysense.ca provides background information on positive approaches to food and physical activity. Promotes positive body image and the prevention of disordered eating in athletes.

- Mission Nutrition www.missionnutrition.ca provides lesson plans and activities specific to self esteem and body image as well as healthy eating and physical activity. Available in French and English.


For other curriculum resources, see Additional Resources.
9. References


National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion. (2000) 2 to 20 years: Girls Stature-for-age and Weight-for-age percentiles. Available at: [http://www.cdc.gov/nchs/data/nhanes/growthcharts/set1clinical/cj41l022.pdf](http://www.cdc.gov/nchs/data/nhanes/growthcharts/set1clinical/cj41l022.pdf)


### 10. Glossary

**Grades 7-8**

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allergy</strong></td>
<td>An unusual immune reaction to a normally harmless substance, such as some components of food.</td>
</tr>
<tr>
<td><strong>Amino acids</strong></td>
<td>The building blocks of proteins. Almost all proteins are made out of 20 standard amino acids.</td>
</tr>
<tr>
<td><strong>Body Mass Index (BMI)</strong></td>
<td>Tool used for adults aged 20 to 65 years to help determine whether they are at risk for health problems associated with weight. BMI in itself is not suitable for growing children and teens.</td>
</tr>
<tr>
<td><strong>Cardiovascular disease</strong></td>
<td>Disease affecting the heart and/or blood vessels.</td>
</tr>
<tr>
<td><strong>Diet</strong></td>
<td>The food and drink usually consumed from day to day. People commonly use this word to refer to weight loss diets.</td>
</tr>
<tr>
<td><strong>Dietitian</strong></td>
<td>A trained expert on the role of food and nutrition in health. He or she is a reliable source of nutrition information and advice on eating and health. Only those individuals who are registered with the College of Dietitians of Ontario can use the titles dietitian or Registered Dietitian.</td>
</tr>
<tr>
<td><strong>Disordered Eating</strong></td>
<td>A continuum of inappropriate or abnormal eating behaviours, ranging from skipping meals to dieting, bingeing, or purging. At the far end of the continuum would be frequent, severe behaviours that would meet the criteria for the diagnosis of an eating disorder.</td>
</tr>
<tr>
<td><strong>Eating Disorders</strong></td>
<td>A group of complex psychological and medical problems characterized by abnormal eating habits and a self-image that is obsessed with weight and body shape. Examples are Anorexia Nervosa and Bulimia Nervosa.</td>
</tr>
<tr>
<td><strong>Enriched</strong></td>
<td>The addition of vitamins and minerals (that may have been lost during processing) to a food product.</td>
</tr>
<tr>
<td><strong>Fat soluble</strong></td>
<td>Something that will dissolve in fat. In food, fat is needed to absorb these nutrients: vitamins A, D, E, K</td>
</tr>
<tr>
<td><strong>Folate</strong></td>
<td>A B vitamin that is necessary for producing and maintaining new cells. This nutrient is especially important during pregnancy. It is also known as folic acid.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Food Guide Serving</td>
<td>The amount of food in a serving as indicated by Canada’s Food Guide. The recommended number of servings varies by age group and gender.</td>
</tr>
<tr>
<td>Fortified</td>
<td>The addition of specific nutrients (that may be lacking naturally in a food) to a food product.</td>
</tr>
<tr>
<td>Hunger cues</td>
<td>The body’s way of telling a person they need to eat. Hunger cues regulate appetite and ensure that people eat enough to meet their energy and nutritional needs. Feelings of hunger may include a growling stomach, irritability, low energy, difficulty concentrating, etc.</td>
</tr>
<tr>
<td>Metabolism</td>
<td>The process by which one’s body burns calories for energy and to support bodily functions.</td>
</tr>
<tr>
<td>Methylmercury</td>
<td>A highly toxic organic compound of mercury that accumulates in fish and shellfish.</td>
</tr>
<tr>
<td>Nutrient density</td>
<td>A measure of nutrients provided per Calorie of food. The addition of a lot of fat or sugar decreases the nutrient density of the food by decreasing the amount of nutrients compared to the number of Calories in the food.</td>
</tr>
<tr>
<td>Nutrition</td>
<td>The study of the nutrients in foods and in the body, and the study of human behaviours related to food.</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>Nutritionists are not regulated by law and people do not require any training to call themselves &quot;a nutritionist. Public Health Nutritionists, however, are an exception - they are required to have a Masters Degree and are registered with the College of Dietitians of Ontario.</td>
</tr>
<tr>
<td>Omega-3 fatty acids</td>
<td>A type of fat found in several types of fish and plant oils (ie. flaxseed, canola, and soybean). There are three types (ALA, DHE, EPA) which are considered essential to health, meaning the body cannot manufacture them.</td>
</tr>
<tr>
<td>Partially hydrogenated</td>
<td>The result of stopping part way through the process of hydrogenating oil so that the product is a semi-solid. This semi-solid consistency is often used by food manufacturers in baked products to increase shelf life. Some of the fatty acids in this process are converted to trans fat.</td>
</tr>
<tr>
<td>Potassium</td>
<td>A mineral that is important for transmitting nerve impulses and</td>
</tr>
</tbody>
</table>
maintaining the fluid balance in the body.

Salt
A mineral primarily composed of sodium chloride. Salt is involved in transmitting nerve impulses and in regulating the water content of the body. High salt intake can increase the risk of health problems such as high blood pressure.

Satiety cues
The body’s way of telling a person they’ve had enough to eat. Feelings of satisfaction arise not just from the amount of food we eat, but also the taste and pleasure of eating appealing food. Feelings of satisfaction include feeling ‘full’ and no longer interested in eating.

Saturated fat
Mostly found in foods from animals and tropical plants (i.e., coconut oil, palm oil, cocoa butter). Large amounts of these fats tend to raise the level of LDL or bad cholesterol in blood increasing the risk of cardiovascular disease.

Trans fat
This fat comes from a vegetable oil that was chemically modified to be more solid. They are found in partially hydrogenated margarines, deep-fried foods, packaged cookies, crackers, and commercially baked products. Trans fat raises the bad LDL cholesterol, but unlike saturated fat, it also lowers the good HDL cholesterol level increasing the risk of cardiovascular disease.

Unsaturated fat
A category of fats that includes polyunsaturated and monounsaturated fats, which are found in mainly fish, nuts, seeds and plant oils. These fats may help lower bad LDL blood cholesterol levels.
11. Healthy Living Grade 7 Activities

Learning Activities

Note:
Teaching about body image may increase peer teasing about students’ body size and shape.
Before starting learning activities it’s important to set some ground rules or guidelines to help
students feel comfortable sharing their ideas and feelings about their bodies (i.e. respecting and
listening to each other, not making negative comments or jokes about people’s bodies; not
judging someone based on their appearance or using the word fat as an insult).
See group guidelines at http://teachnutrition.org/Files/body_image-activity1.pdf

Many students face teasing and harassment about their weight, appearance or culture which can
strongly affect their body image and self esteem.
In Additional Resources see the following for more on teasing and harassment
• Video--Gossiping, Taunting, Bullying: It’s All Harassment (Gr. 5-9)
• Teachers Kit for Gr. 7-9. Body Image Works www.bodyimageworks.com. This kit
  may be available for loan from local school boards or Health Departments.

For Body Image lesson plans that reflect best practice:
• Adapt Tuning in to Hunger (below)
• Adapt Body Image, Self Esteem and Eating Practices in Grade 6 section
• Use the websites listed below

Grades 6-8
• Mission Nutrition www.missionnutrition.ca provides lesson plans and activities
  specific to self esteem and body image as well as healthy eating and physical activity.
  Available in French and English.
• QuEst for Health Program www.sheenasplace.org/index.php?page=quest contains
  lesson plans and activities aimed at improving body image, self-esteem and
  wellbeing.
# Healthy Living Grade 7 Activities

## Healthy Eating Overall Expectation

**Relate healthy eating practices and active living to body image and self esteem**

<table>
<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| Examine the effects of healthy eating and regular physical activity on body size and shape, and on self-esteem. | 1. Eating Well with Canada’s Food Guide  
2. Healthy Living & Well-being  
3. Active Living Goals  
4. Active Living Reporter (Assessment)  
5. Mission Possible  
6. Radio Broadcast  
7. Game Plan for a Healthy Lifestyle  
8. Problem Solving Pathway | • Healthy Eating (Canada’s Food Guide)  
• Physical activity and active living  
• Self-esteem  
• Healthy living & wellbeing message |

Describe how our body image influences our food choices.

**Activities that meet more than one Specific Expectation:**

7. Game Plan for a Healthy Lifestyle

• Body image and self-esteem  
• Factors affecting food choices

Identify factors affecting healthy body weight (e.g., food intake, growth spurts, physical activity/inactivity).

<table>
<thead>
<tr>
<th>Activities that meet more than one Specific Expectation:</th>
<th>Learning Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Tuning into Hunger</td>
<td>• Factors affecting body weight</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities that meet more than one Specific Expectation:</th>
<th>Learning Concepts</th>
</tr>
</thead>
</table>
| 1. Canada’s Food Guide  
3. Active Living Goals  
4. Active Living Reporter (Assessment)  
8. Problem Solving Pathway | • Healthy Eating (Canada’s Food Guide)  
• Physical activity and active living |
Specific Expectation

Examine the effects of healthy eating and regular physical activity on body size and shape, and on self-esteem.

1. **Eating Well with Canada’s Food Guide**

   (This activity also meets the following Specific Expectation: Identify factors affecting healthy body weight)

   Ask students, “What do you know about Canada’s Food Guide”? Explain that the Food Guide is a tool used to establish healthy eating habits through the daily selection of food. If students are not familiar with the Food Guide, it will be helpful to spend time reviewing some of the concepts (see section 1.1 Eating Well with Canada’s Food Guide in the Background Information).

2. **Healthy Living and Well-Being**

   Review with the students the three positive lifestyle choices that make up healthy living and wellbeing. (see Background Information).

   Discuss, as a group, the following questions:
   
   - What does “eating well” mean to you?
     What are the benefits of eating well?
     What can you do to improve or maintain healthy eating habits?
   
   - What does “enjoy being active” mean to you?
     What are the benefits of active living?
     What can you do to improve or maintain your activity level?
   
   - What does “feeling good about yourself” mean to you?
     What are the benefits of “feeling good about yourself”?
     How do physical activity and healthy eating relate to feeling good about yourself?

   Homework (or in class): In pairs, have students design a poster to promote healthy living and wellbeing. Encourage them to use some of the ideas brought up during the discussion.

3. **Active Living Goals**

   (This activity also meets the following Specific Expectation: Identify factors affecting healthy body weight)
Review the benefits of active living (see section 3-Physical Activity and Youth in the Background Information). Have students record types and amount of time they engage in physical activity for two weeks. Have students set a personal goal for improving or maintaining their current level of activity. Ask them to discuss with a partner ways they can meet this goal.

After students have tried out their plan for one month, discuss how easy or hard it was to meet their goals (research shows that for a habit to be formed, a lifestyle change must be attempted for at least one month). What beneficial effects of being physically active have they noticed?

Note: Discuss with students that physical activity is not just sports or aerobics but also includes walking to the corner store, mowing the lawn, shoveling snow, biking, etc. Activity should be incorporated into daily life. Canada’s Physical Activity Guides for Children and Youth recommend increasing the amount of time currently spent doing physical activity by 30 minutes per day, in periods at least 5-10 minutes long. The ultimate goal is to gradually accumulate 90 minutes of moderate to vigorous physical activity a day. Discuss the differences between regular physical activity and over-exercising. (see section 8.4 Sports Dieting in the Background Information).

4. Active Living Reporter (Assessment – see rubric)

(This activity also meets the following Specific Expectation: Identify factors affecting healthy body weight)

Interview a person (e.g., friend, family member, local celebrity) who engages in regular physical activity and write about this person’s experiences. Encourage students to come up with a list of questions to assist them in learning about physical activity. Sample interview questions include:

- What types of activities do you do? How often?
- Have you always been physically active?
- If not, when did you decide to start being physically active?
- How long did it take to start feeling the benefits?
- How do you stay motivated to remain physically active?

Is the person interviewed practicing healthy behaviours? (i.e., being physically active, eating according to Canada’s Food Guide, etc.; not weight loss dieting or over-exercising). How are these behaviours helping them achieve or maintain a healthy body weight and a positive self-esteem? What else can this person do to reach their goals? Have students communicate the results as an oral or written presentation or poster which includes a brief analysis of their findings.
Rubric to assess the *Active Living Reporter* activity:

<table>
<thead>
<tr>
<th>Category</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
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<tbody>
<tr>
<td><strong>Knowledge/ Understanding</strong></td>
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<tr>
<td>Understanding the Concepts:</td>
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<tr>
<td>• Physical Activity</td>
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<tr>
<td>• Healthy Eating</td>
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<tr>
<td>• Self-esteem</td>
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<tr>
<td>• Healthy Body Weight</td>
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<tr>
<td>Understanding the relationship between the above concepts</td>
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<tr>
<td>Shows understanding of few of the required concepts, with major errors or omissions</td>
<td>Shows understanding of some of the required concepts with several minor errors or omissions</td>
<td>Demonstrates an understanding of the relationship between the concepts with few errors or omissions</td>
<td>Demonstrates a thorough understanding of the relationship between the concepts with practically no errors or omissions</td>
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<tr>
<td><strong>Thinking/ Inquiry</strong></td>
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<td>Analyzes and interprets information and forms conclusions</td>
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<tr>
<td>Analyzes information and forms conclusions regarding the practice of healthy behaviours with limited effectiveness</td>
<td>Analyzes information and forms conclusions regarding the practice of healthy behaviours with moderate effectiveness</td>
<td>Analyzes information and forms conclusions regarding the practice of healthy behaviours with considerable effectiveness</td>
<td>Analyzes information and forms conclusions regarding the practice of healthy behaviours with a high degree of effectiveness</td>
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<tr>
<td><strong>Communication</strong></td>
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<tr>
<td>Written, oral or visual communication of required knowledge</td>
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<tr>
<td>Communicates the required knowledge (understanding of concepts) through the poster, written or oral presentation, poorly, making many errors or omissions</td>
<td>Communicates the required knowledge (understanding of concepts) through the poster, written or oral presentation, with some clarity, making some errors or omissions</td>
<td>Communicates the required knowledge (understanding of concepts) through the poster, written or oral presentation, clearly and precisely, making few errors or omissions</td>
<td>Communicates the required knowledge (understanding of concepts) through the poster, written or oral presentation, clearly and precisely, making no or almost no errors or omissions</td>
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<tr>
<td>Rarely uses appropriate terminology</td>
<td>Sometimes uses appropriate terminology</td>
<td>Usually uses appropriate terminology</td>
<td>Uses appropriate and varied terminology</td>
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</table>
5. **Mission Possible**

Read or write the following assignment on the board for students:

You are an agent with the FBI (Food/Fitness Bureau of Investigation). Investigate how healthy eating and regular physical activity affect health and self-esteem (see Glossary and Sections 1-4 in Background Information). To gather material you can interview friends and family, look in books or on the Internet. Write a report to summarize your findings.

Variation: The class can be divided into two groups, with one focusing on healthy eating and the other on physical activity. Although the two groups are working separately, stress to students that physical activity and healthy eating are interrelated.

6. **Radio Broadcast**

Using the healthy eating and physical activity concepts learned in this unit, have pairs of students write 30-60 second Public Service Announcements (P.S.A.) that promote healthy eating and/or physical activity and their positive effects on health and wellbeing or self-esteem. Use the messages on the school announcements (see Sections 1-4 in Background Information).

7. **Game Plan for a Healthy Lifestyle**

(This activity also meets the following Specific Expectation: Describe how our body image influences our food choices)

Ask students the following questions:

- What is healthy eating? What tool can be used to help plan meals for healthy eating? (see Section 1 in Background Information)
- What is regular physical activity? Why is it important? How does someone maintain their activity level? (see Section 1 in Background Information)
- What are the effects of these two activities on health and self-esteem? (Sections 1-4 in Background Information)

In small groups of four to five, have students work through the scenarios on the *Game Plan for a Healthy Lifestyle: Scenarios* activity sheet about the effects of healthy eating and regular physical activity on health and self-esteem. You may have more than one group working on the same scenario.

Optional: To make the activity more visual and fun, put together envelopes with pictures related to the food or activities of the character. Provide each group with a scenario as well as the supporting envelopes.
Envelope contents:

Scenario 1 (Tom) - breakfast
- lunch
- dinner
- activities (e.g., hockey, volleyball, tennis and other)

Scenario 2 (Omar) - dinner
- snacks
- activities (e.g., computer games, swimming)

Scenario 3 (Angelina) - breakfast
- lunch
- activities (e.g., exercise activities)

After the small groups have discussed answers to the questions, regroup and discuss answers with the whole class.

8. Problem-Solving Pathway

(This activity also meets the following Specific Expectation: Identify factors affecting healthy body weight)

Divide the class into four groups assigning them the A, B, C and D case studies from the Problem Solving Pathway activity sheets. Begin this activity with each group completing box #1 (What is the Problem?) for their assigned problem. After describing the problem in box #1, have the students pass their sheets on to the next group (group A will pass to group B as group B passes to group C, etc.). Each group will then complete box #2. The group will then pass their sheets to the next group (e.g., group A will pass group D’s sheet to group B, etc.). There will be four passes to complete the pathway. Box #5 (What did I learn?) will be completed on the fourth and final pass when each of the four groups have their original sheets returned to them.

Ask each group to present their case studies. As a class, discuss how the pathway process helped or hindered their problem solving.

9. Tuning Into Hunger

Please see the Region of Peel Public Health website for more activities for this section:

www.peelregion.ca/health/baew/lesson-plans/healthy-eating/lpth/intermediate/lplans/hunger.htm
Game Plan for Healthy Living

Scenarios

Scenario 1:
Tom is going through a growth spurt. It looks like he’s going to be tall like his parents. He is active in hockey, volleyball and tennis. Almost every day of the week he is involved in a sports activity. By the time he gets home from his practices, he barely has enough time to do his homework. Most mornings, Tom wakes up, quickly grabs a glass of milk and a couple of cookies and rushes off to school. During the day, he finds himself snacking on whatever he picks up at the cafeteria – usually French fries with gravy and a pop. Dinner is the only time Tom eats a healthy meal because his parents insist on eating dinner together. Tom has been feeling very tired in class, sometimes even dozing off for a moment. He is worried that if his marks drop, he will be kicked off the school sports teams.

- Why is Tom’s energy level low during the day? What can he do to improve it?
- What may happen to his body if he continues these habits?

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Scenario 2:
On most days Omar is home alone after school and in the evening. Typically, he will heat up and eat a frozen dinner and often will snack on cookies, chips, and ice cream while he surfs the net and plays video games on his computer. Sometimes on Saturday, Omar will go to a nearby pool with friends for a swim.

- What could Omar do to improve his eating habits?
- What could Omar do to improve his activity level?

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Scenario 3:
Angelina admires her aunt who is attractive, thin and wears the latest fashions. When she visited a month ago, she said to Angelina, “Looks like you’ve put on a few pounds since I last saw you”. The next day, Angelina began a new routine with morning crunches, jumping jacks and side leg raises. She now skips breakfast every day. For lunch, she eats some fruit. After school, she exercises to her sister’s workout video then goes for a jog around the neighbourhood. When she gets home she is exhausted and lies on her bed to read her teen magazines. She wishes she had a body shape like the girls in the magazines. Her family and her best friend tell her she looks great, but she can’t help feeling unhappy about her body.

- How has the comment made by her aunt affected Angelina’s body image, self-esteem, eating habits, and physical activity level?
- If you were Angelina’s friend, how could you help her?
Case A

Problem Solving Pathway

Miah is a busy grade seven student, who rarely has time to eat dinner. Miah attends gymnastics three times a week and baby-sits on the weekends. This year she has found that the workload at school has been increasingly difficult. To keep up, she finds herself staying up late at night or using her lunch hour to complete her school assignments. Miah has found that lately she is tired in class and is having difficulty with simple gymnastic routines that require minimal strength. Miah has found that her confidence in school and gymnastics has begun to wane. Use the Problem Solving Pathway to help Miah improve her lifestyle.

Box #1
What is the problem?
What are the options?

Box #2
1)  

2)  

3)  

Box #3
What are the consequences of each option?
1) Pros

Cons

2) Pros

Cons

3) Pros

Cons

Box #4
Which option is your choice?

What is the reason for your choice?

Box #5
What did you learn?
Case B

Steven plays on two school sports teams. Although he has been praised for being the quickest player, he has heard that if he builds some muscle he could have more strength like some of the other guys who are not as thin as he is. Steven is uncertain why he is so thin because his family refers to him as a hearty eater. Steven’s parents who are thin ensure that family members eat various foods from Canada’s Food Guide. Steven has heard the guys in the locker room discuss muscle building supplements. This has left him quite curious. Use the Problem Solving Pathway to help Steven make his decision.

<table>
<thead>
<tr>
<th>Box #1</th>
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<th>Box #4</th>
<th>Box #5</th>
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<tbody>
<tr>
<td>What is the problem?</td>
<td>What are the options?</td>
<td>What are the consequences of each option?</td>
<td>Which option is your choice?</td>
<td>What did you learn?</td>
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</tbody>
</table>

1) Pros

Cons

2) Pros

Cons

3) Pros

Cons

What is the reason for your choice?
Case C

At your school, there have been concerns voiced by various students that a number of their peers are engaging in unhealthy eating practices such as skipping meals and excessive exercising. Use the Problem Solving Pathway to help the students and teachers address this issue.

<table>
<thead>
<tr>
<th>Box #1</th>
<th>Box #2</th>
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<th>Box #4</th>
<th>Box #5</th>
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<tbody>
<tr>
<td>What is the problem?</td>
<td>What are the options?</td>
<td>What are the consequences of each option?</td>
<td>Which option is your choice?</td>
<td>What did you learn?</td>
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<td>1)</td>
<td>1) Pros</td>
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<td>Cons</td>
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<td></td>
<td></td>
<td>3) Pros</td>
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</table>

What is the reason for your choice?
Case D

Problem Solving Pathway

Troy, a grade seven student who usually enjoys public speaking, was quite embarrassed the last time he presented in class because his voice constantly cracked. Yesterday, his mother suggested that they go out and buy him some new clothes as some of his favourite jeans barely button anymore. Some of the other kids in class have been experiencing some changes as well, and have stated that they are as tall as the teacher. During his daily half hour walk with his neighbour’s dog, Troy was thinking about the last time that he grew in height, a few years back in Ms. Einstein’s class. This reminds him that he was thinner then, and therefore appeared taller. Troy has begun thinking about his recent bodily changes and starts to question what is “normal”. Use the Problem Solving Pathway to help Troy wade through his confusion.

<table>
<thead>
<tr>
<th>Box #1</th>
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<th>Box #4</th>
<th>Box #5</th>
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</thead>
<tbody>
<tr>
<td>What is the problem?</td>
<td>What are the options?</td>
<td>What are the consequences of each option?</td>
<td>Which option is your choice?</td>
<td>What did you learn?</td>
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<tr>
<td>1) Pros</td>
<td>Cons</td>
<td>2) Pros</td>
<td>Cons</td>
<td></td>
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<tr>
<td>2)</td>
<td></td>
<td>3) Pros</td>
<td>Cons</td>
<td>What is the reason for your choice?</td>
</tr>
</tbody>
</table>
12. Healthy Living Grade 8 Activities

**Note:**
Teaching about body image may increase peer teasing about students’ body size and shape. Before starting learning activities it’s important to set some ground rules or guidelines to help students feel comfortable sharing their ideas and feelings about their bodies (i.e. respecting and listening to each other, not making negative comments or jokes about peoples bodies; not judging someone based on their appearance or using the word fat as an insult). See group guidelines at [http://teachnutrition.org/Files/body_image-activity1.pdf](http://teachnutrition.org/Files/body_image-activity1.pdf)

Many students face teasing and harassment about their weight, appearance or culture which can strongly affect their body image and self esteem.

In **Additional Resources** see the following for more on teasing and harassment
- **Video**--Gossiping, Taunting, Bullying: It’s All Harassment (Gr. 5-9)
- **Teachers Kit for Gr. 7-9.** Body Image Works [www.bodyimageworks.com](http://www.bodyimageworks.com). This kit may be available for loan from local school boards or Health Departments.

For Body Image lesson plans that reflect best practice:
- Adapt *Tuning in to Hunger* (see web links below)
- Adapt *Body Image, Self Esteem and Eating Practices* in Grade 6 section
- Use the websites listed below

**Grades 6-8**
- *Mission Nutrition* [www.missionnutrition.ca](http://www.missionnutrition.ca) provides lesson plans and activities specific to self esteem and body image as well as healthy eating and physical activity. Available in French and English.
### Healthy Living Grade 8 Activities

#### Healthy Eating Overall Expectation

**Adopt personal goals that reflect healthy eating practices**

<table>
<thead>
<tr>
<th>Specific Expectations</th>
<th>Activities</th>
<th>Learning Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyse the effects of undereating (e.g., as a result of bulimia or sports dieting)</td>
<td>1. Does Dieting Work?</td>
<td>• Weight loss dieting has a negative effect on health and well being.</td>
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<tr>
<td>and overeating (e.g., obesity) on health and well-being.</td>
<td>2. A Positive Twist</td>
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<tr>
<td>Identify ways to maintain a healthy body weight (e.g., listening to hunger and</td>
<td>3. Healthy Body Weight Brainstorm</td>
<td>• Eat when hungry and stop when feeling full or satisfied</td>
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<td>fullness cues, physical activity).</td>
<td>4. Healthy Body Weight Crossword</td>
<td>• Setting goals to make behaviour changes</td>
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<td></td>
<td>5. Hunger Scale</td>
<td>• Recognizing challenges/successes in making health behaviour changes</td>
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<td></td>
<td>6. Active Living</td>
<td>• Identifying healthy eating practices</td>
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<td></td>
<td>7. Fitness Breaks &amp; Healthy Eating Tips</td>
<td>• Balancing meals</td>
</tr>
<tr>
<td></td>
<td>8. Tuning Into Hunger</td>
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<tr>
<td>Activities that meet more than one Specific Expectation:</td>
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<tr>
<td>5. Does Dieting Work?</td>
<td></td>
<td></td>
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<tr>
<td>6. A Positive Twist</td>
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<tr>
<td>Adopt personal food plans, based on nutritional needs and personal goals, to</td>
<td>9. Personal Food Plan</td>
<td>• Setting goals to make behaviour changes</td>
</tr>
<tr>
<td>improve or maintain their eating practices.</td>
<td>10. Journal Reflections</td>
<td>• Recognizing challenges/successes in making dietary changes</td>
</tr>
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<td></td>
<td>11. Balance Your Meal</td>
<td>• Balancing meals</td>
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<td></td>
<td>12. Snack Nouveau</td>
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<td></td>
<td>13. The Fifth Nutrition Estate</td>
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</table>
Specific Expectation

Analyze the effects of under-eating (e.g., as a result of bulimia or sports dieting) and over-eating (e.g., obesity) on health and well-being.

1. Does Dieting Work?

(This activity also meets the following Specific Expectation: Analyze the effects of undereating (e.g., as a result of bulimia or sports dieting) and overeating (e.g., obesity) on health and well-being.

Ask the class what they think the word ‘diet’ means. Be sure to highlight in the discussion that having a healthy diet is not the same thing as dieting for weight loss (see section 8.2 Why Restrictive Dieting is a Concern in the Background Information). Explain the problems with dieting. The focus for all students should be on healthy behaviours, not body weight. Implementing healthy eating and physical activity habits, including a positive body image and self-esteem can improve students’ health. Distribute the Does Dieting Work? activity sheet for students to complete on their own.

2. A Positive Twist

(This activity also meets the following Specific Expectation: Analyze the effects of undereating (e.g., as a result of bulimia or sports dieting) and overeating (e.g., obesity) on health and well-being.

As a class, brainstorm a list of negative impacts weight loss dieting has on a person’s health. Some suggestions are listed below (see section 8.2 Why Restrictive Dieting is a Concern in the Background Information).

- Dieting doesn’t work.
- Dieting doesn’t make you fit.
- Dieting can make you fat.
- Dieting slows down your metabolism.
- Dieting makes you sluggish.
- Dieting can make you cranky.
- Dieting supports poor food choices.
- Dieting doesn’t make you more popular or happier.
- Dieting stops you from fully enjoying life.
- Dieting lowers your self-esteem.
- Dieting can interfere with your growth.
In small groups, have students turn their list of negative impacts into positive statements about the role healthy eating and physical activity have on health and well-being. For example, change the statement “Dieting makes you sluggish” to “Healthy eating makes you energetic”.

Create posters using the positive statements and post in the classroom or throughout the school for constant reinforcement of the benefits of a healthy lifestyle.
Specific Expectation

Identify ways to maintain a healthy body weight (e.g., listening to hunger and fullness cues, physical activity).

3. Healthy Body Weight Brainstorm

Explain to students that there is a range of healthy body weights. Stress that healthy habits, not a given number on the scale, are the goal (see Section 6- ‘Body Image during Puberty’ in the Background Information). No fixed number, table, or graph, can determine what a healthy weight would be for an individual.

As a class, brainstorm a list of ways people can maintain a healthy body weight. Encourage specific examples including the following:

- healthy eating practices (e.g., increase the number of servings of vegetables and fruit eaten each day)
- physical activity/active living (e.g., hockey, aerobics, dancing, walking to the grocery store, taking the stairs rather than the elevator)
- feeling good about yourself (e.g., positive body image, self-esteem)

Notes:
- There is no method to ‘measure’ and assess the weights of children to determine whether they are healthy. Children are growing at different rates through to the end of puberty.
- A measure of healthy weight range called the Body Mass Index (BMI) is available for adults age 20-65 who have completed their linear growth. The BMI is not suitable as a tool to estimate a healthy weight range for growing children and teenagers.

4. Healthy Body Weight Crossword

Distribute the Healthy Body Weight Crossword activity sheet. After the students have completed the crossword, discuss the answers (see Healthy Body Weight Crossword answer sheet).

5. Tuning into Hunger

Explain to students that a non-dieting approach to eating involves eating when you are hungry and stopping when you are full. Explain that the stages of ‘hunger’ can be plotted on a continuum:

satisfied → thinking of food → hungry → really hungry → starving
Make several copies of the *Hunger Scale Categories & Indicators* activity sheet. Cut the pieces along the dotted lines and place them in envelopes.

Divide students into groups of three to four. Distribute one envelope to each group. Ask students to sort the indicators into the appropriate categories (i.e., satisfied, thinking of food, hungry, really hungry, starving). While referring to the *Hunger Scale* answer sheet, have a class discussion around the following questions:

- How do you know when your body is hungry?
- What do you do when you are hungry?
- What happens when you ignore feelings of hunger?
- Do you ever eat when you are not hungry? Why?
- Are the foods you eat when you are starting to feel hungry any different than the foods you eat when you are feeling extremely hungry?

Source: *Every BODY Is A Somebody*, The Body Image Coalition of Peel, 1997

### 6. Active Living

Have students develop an ad that illustrates how physical activity promotes the maintenance of health. The ads must:

- focus on non-dieting messages (e.g., “Physical activity is good for bone health.”; “Physical activity helps you sleep well.”; “Physical activity boosts your energy.”)
- not be about losing weight or about excessive body building
- include a slogan
- include eye-catching colours and graphics (if a print ad)

Display poster ads around the classroom and school or announce over the PA system.

### 7. Fitness Breaks and Healthy Eating Tips

In small groups, have students design five simple one-minute fit breaks. Each fit break should focus on one of the following aspects of fitness:

- endurance activities (e.g., walking, dancing, jumping)
- flexibility activities (e.g., reaching, bending, stretching)
- strength activities (e.g., push-ups, stair climbing, carrying books)

Then have each group develop five simple healthy eating tips in the form of one or two sentences each (e.g., “Give your lunch a nutritional lift; pack two oranges and give one to a friend.”).

The class can introduce the concept of a daily one minute fit break and healthy eating tip to the entire school. One fit break or healthy eating tip can be read over the PA system each day. Right after the announcements, a student can lead their class in a one minute
fit break. Fit break routines and healthy eating tips can be repeated throughout the school year.

8. Tuning Into Hunger

Please see the Region of Peel Public Health website for more activities for this section: www.peelregion.ca/health/baew/lesson-plans/healthy eating/lpth/intermediate/lplans/hunger.htm

Specific Expectation

**Adopt personal food plans, based on nutritional needs and personal goals, to improve or maintain their eating practices.**

9. **Personal Food Plan**

Review Canada’s Food Guide (food groups, serving sizes and recommended number of servings, (see Section 1.1 in the Background Information). Ask students to use the steps outlined below to develop a personal food plan.

a) Individually, students identify and record one personal goal to improve or maintain their eating habits.

b) In pairs, students help each other develop a personal food plan for the following day using the *Personal Food Plan* activity sheet. This plan should incorporate their personal goal(s) and meet the recommendations in Canada’s Food Guide. Ask students to use Canada’s Food Guide to make the comparison.

c) Students list challenges and corresponding solutions to achieving their goal. For example:

   Personal goal - To include more milk in my diet.
   Personal food plan - Include milk on cereal for breakfast and have a glass of milk for supper.
   Challenge - Family drinks water or pop at supper.
   Solution - Put milk jug on the table.

   d) Students try to meet their goal for one month.

   e) Students keep a record of challenges that made it difficult to meet their goal(s) with corresponding solutions as well as other things that helped them meet their goal(s).

   Have a follow-up discussion on the challenges and solutions the students experienced in meeting or not meeting their goal. Ask students to discuss how they overcame the challenges (e.g., how they persuaded their family to change or how they coped with friends suggesting they have pop instead of milk).
10. Journal Reflections

Ask students to devote ten minutes a day to record reflections about healthy lifestyles, healthy eating, and active living. Ask them to reflect on things they want to continue, things they want to change, what they did yesterday to eat healthy and keep active, what they will do today, and what they can do tomorrow. Have students set personal goals and record the difficulties/successes in achieving those goals.

This journal activity can be done over several weeks. Please respect students’ privacy regarding journal entries. Offer to meet with students on an individual basis to discuss personal issues that are triggered by journal writing.

11. Balance your Meal

Ask the students to bring in a favourite entree recipe. Using the Balance Your Meal activity sheet, have the students form pairs and complete the activity sheet focusing on:

- Which food groups already exist in the recipes?
- Is the amount of a particular food (i.e. vegetables) in the recipe enough to be considered a serving size?
- Which food groups should be added to balance their meals?
- What adaptations could be made to make the recipes healthier (e.g., use half the amount of oil, milk instead of water, whole wheat bread instead of white bread)?

Ask the students to try the adapted recipes with their family and to discuss the results with the class. Did it still taste good? If not, why not, and could something be done differently?

12. Snack Nouveau

As a class, have the students brainstorm and list their favourite snacks that can be purchased from grocery stores, convenience stores, fast food outlets, cafeterias or restaurants. Discuss the concepts of ‘everyday’ and ‘sometimes’ foods. Classify the snacks into ‘everyday’ snacks and ‘sometimes’ snacks (see the Grade 1-3 Background Information). Have a discussion about what influences snack choices (e.g., peers, taste, advertising, cost and convenience).

Ask the students the next time that they purchase a snack to choose one of the ‘everyday’ snacks on their class list.

At a follow-up class have students identify where and how easy or difficult it was to find these snacks and whether they would continue to buy them. If it was difficult to find the snack, what would make it easier (e.g., having a vending machine with milk or yogurt)? What could they do to improve the availability of “everyday” snacks in their school and community? For example, students could write letters to their principal to ask for healthy choices in their school vending machines.
13. The Fifth Nutrition Estate

Have each student interview one person about their eating habits. Encourage students to interview people with different eating styles (e.g., vegetarian, kosher) and/or from different ethno-cultural groups (e.g., South Asian, Italian). Some sample questions follow:

- How many meals did you eat yesterday?
- How many snacks did you eat yesterday?
- How many servings of Vegetables and Fruit did you eat yesterday?
- What types of Vegetables and Fruit did you eat yesterday?
- How many servings of dark green or orange vegetables or fruit did you eat yesterday?
- How many servings of Grain Products did you eat yesterday?
- What types of Grain Products did you eat yesterday?
- Did you eat any servings of whole wheat or other whole grain foods?
- How many servings of Milk and Alternatives did you eat yesterday?
- How many of your Milk and Alternatives servings were low fat? (2% M. F. or less)
- How many servings of Meat and Alternatives did you eat yesterday?
- Did you eat any beans, tofu, lentils, or other meat alternatives?
- What types of cooking methods were used?
- Did you get overly hungry during the day?
- If so, what did you eat when you were very hungry?
- Would you say that yesterday was a typical day?

Ask the students to write a report summarizing the person’s one-day eating pattern. Have students make recommendations for improving the person’s eating pattern. Remind students that one day does not determine whether a person’s eating pattern is healthy or not.

Ask students to try one new food or cooking method they learned from the person they interviewed, if possible.
Does Dieting Work?

Answer the following TRUE or FALSE statements.

1. Weight loss dieting is good for you.  
   True □ False □

2. Most dieters keep off the weight they lose.  
   True □ False □

3. A person’s metabolism slows down when they are on low Calorie diets.  
   True □ False □

4. Like height, our weight is mostly determined by our genetics.  
   True □ False □

5. A diet that recommends eating only fruits and vegetables is healthy.  
   True □ False □

6. I should never eat “sometimes” foods.  
   True □ False □

7. Weight loss diets can isolate us socially.  
   True □ False □

8. Body fat is bad for you.  
   True □ False □

9. Weight loss diets can lead to eating disorders.  
   True □ False □

10. Slimmer people are always healthier than heavier people.  
    True □ False □

11. The goals of healthy eating are to lose weight and to be slim.  
    True □ False □

Now convert each false answer into a true statement and provide an explanation (use back of page to record answers).

For example: Healthy eating means only eating low fat foods.
   False
   True statement: Healthy eating means eating a variety of foods.
   Explanation: Healthy eating means choosing a variety of foods from Canada’s Food Guide.
   It is the overall pattern of foods eaten and not any one food, meal or even a day’s meals.
1. **Weight loss dieting is good for you.**  
   **False.** Weight loss dieting is not good for you because it has many unhealthy physical and psychological effects. For example, dieting increases your chance of becoming malnourished, being tired, gaining weight and can lead to feelings of low self-esteem when the diet fails.

2. **Most dieters keep off the weight they lose.**  
   **False.** People who go on diets may initially experience quick weight loss due to water and protein losses. However, severely restricting food intake will result in low energy, limited food choices, and boredom. Plus, one will likely regain all the lost weight and more very quickly. Only 5% of all dieters will maintain their weight loss after one year.

3. **A person’s metabolism slows down when they are on low Calorie diets.**  
   **True.** Metabolism slows down when Calories are low. This means that your body burns less energy (Calories). It begins to adjust to the chronically low energy intakes and becomes better at storing Calories as fat. So, restricting Calories causes an imbalance in your metabolism.

4. **Like height, our weight is mostly determined by our genetics.**  
   **True.** People come in different sizes and shapes. Height and weight are partly determined by the body type you inherited from your family. Just as some people may wish to be taller or shorter, others may wish to weigh more or less than they do. However, dieting is not a solution to weighing less; in fact, it often causes more problems. Find your own unique healthy weight by eating well and being active. Eat when you feel hungry and stop when you feel comfortably full or satisfied. Enjoy regular meals and snacks and use Canada’s Food Guide to choose a variety of foods that are nutritious and taste good. Find physical activities that you like and will enjoy on a regular basis.

5. **A diet that recommends eating only fruits and vegetables is healthy.**  
   **False.** Our bodies need nutrients from different types of food. Fruits and vegetables nourish our bodies with lots of vitamins, minerals and dietary fibre. Our bodies also need Grain Products for energy, Milk and Alternatives for calcium and bone health, and Meat & Alternatives for our organs and muscle function. The key is to follow balanced eating habits based on Canada’s Food Guide.

6. **I should never eat “sometimes” foods.**  
   **False.** Weight loss diets often classify foods as “good” or “bad”, but all foods can be included in a healthy eating pattern. There is no such thing as a “bad” food. It is okay to eat all foods including chocolate, cake and cookies as long as they are eaten in moderation. Food should be enjoyed without guilt.

7. **Weight loss diets can isolate us socially.**  
   **True.** Weight loss diets affect us socially as well as physically. People on weight loss diets may become excessively preoccupied with looks and body image. This, in turn, may lead to social withdrawal such as not attending parties or no longer hanging out with friends.

*continued on next page*
8. **Body fat is bad for you.**
   *False.* Body fat plays an essential role in our bodies. Our bodies need body fat for the proper functioning of cells, membranes, and the nervous system. Women in general have more body fat than men. Women have additional body fat that is gender specific fat. This fat is stored in the breasts, thighs and hips and is needed for female reproductive health such as pregnancy.

9. **Weight loss diets can lead to eating disorders.**
   *True.* Although most people who diet don’t develop an eating disorder, people diagnosed with eating disorders often describe how dieting was the beginning of their eating problems. Dieting makes a person preoccupied with thoughts of food and weight. Furthermore, people often receive positive comments from others when they lose weight. This positive reinforcement can lead some people to continue dieting and losing weight. They develop a fear of weight gain and their perception of their body size and shape becomes distorted, causing them to see themselves as “fat” even though they’re not.

10. **Slimmer people are always healthier than heavier people.**
    *False.* The idea that thinness equals health is a myth. For example, research has shown that people who are too thin have the greatest risk of early death.

11. **The goals of healthy eating are to lose weight and to be slim.**
    *False.* Healthy eating and being active will help us feel good about ourselves. We cannot always control our weight, but we can improve our eating and activity habits. It’s important to enjoy all foods in moderate quantities and participate in regular physical activity for fun and fitness.
Across
1. Participate in __________________________ for fun and fitness.
3. Physical activity can make you feel more ______and tone your muscles.
5. Eating when you are ________ and stopping when you are full will help you maintain a healthy body weight.
7. The measure of energy in food. ____________.
9. During a growth spurt, growth in height and _______________ do not always happen at the same time.

Down
2. Our body shapes are largely determined by our _______________ parents.
4. Canada’s Food Guide is an educational tool that can help you choose a ______ of foods for healthy eating.
6. Girls and boys your age go through this __________ _______.
8. One of the heart disease risk factors that you can improve. _________________.
10. Energy from food comes from fat, protein and _____________.

Name: ________________________________
Across
1. Participate in **Physical activity** for fun and fitness.
3. Physical activity can make you feel more **energetic** and tone your muscles.
5. Eating when you are **hungry** and stopping when you are full will help you maintain a healthy body weight.
7. Measure of energy in food **Calories**.
9. During a growth spurt, growth in height and **weight** do not always happen at the same time.

Down
2. Our body shapes are largely determined by our **biological** parents.
4. **Canada’s Food Guide** is an education tool that can help you choose a **variety** of foods for healthy eating.
6. Girls and boys your age go through this. **Growth spurt**.
8. One of the heart disease risk factors that you can improve. **Physical inactivity**
10. Energy from food comes from fat, protein and **carbohydrate**.
## Hunger Scale

<table>
<thead>
<tr>
<th>Categories</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfied</strong></td>
<td>Feeling shaky, temporarily satisfied with a snack</td>
</tr>
<tr>
<td></td>
<td>No thoughts, temporarily satisfied with a snack</td>
</tr>
<tr>
<td><strong>Thinking of food</strong></td>
<td>May faint, unable to concentrate</td>
</tr>
<tr>
<td></td>
<td>Low energy, not ready for a meal - satisfied with nibbles</td>
</tr>
<tr>
<td><strong>Hungry</strong></td>
<td>Getting harder to concentrate, decreased physical coordination</td>
</tr>
<tr>
<td></td>
<td>Not hungry, may feel sleepy</td>
</tr>
<tr>
<td><strong>Really Hungry</strong></td>
<td>Thinking of food a lot, hungry enough to eat a meal</td>
</tr>
<tr>
<td></td>
<td>May eat for something to do if upset or bored, vague thoughts of food</td>
</tr>
<tr>
<td><strong>Starving</strong></td>
<td>Stomach growling, experiencing a headache</td>
</tr>
<tr>
<td></td>
<td>May have had a meal recently, nausea, upset stomach</td>
</tr>
<tr>
<td></td>
<td>Making decisions about what to eat</td>
</tr>
</tbody>
</table>

Source: Every BODY Is A Somebody, Body Image Coalition of Peel, 1997
<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td><strong>Satisfied</strong>&lt;br&gt;Not hungry&lt;br&gt;No thoughts of food&lt;br&gt;May have had a meal recently</td>
</tr>
<tr>
<td>1</td>
<td><strong>Thinking of food</strong>&lt;br&gt;Vague thoughts of food&lt;br&gt;Not ready for a meal&lt;br&gt;May eat for something to do if upset or bored</td>
</tr>
<tr>
<td>2</td>
<td><strong>Hungry</strong>&lt;br&gt;Hungry enough to eat a meal&lt;br&gt;Temporarily satisfied with a snack&lt;br&gt;Making decisions about what to eat</td>
</tr>
<tr>
<td>3</td>
<td><strong>Really Hungry</strong>&lt;br&gt;Thinking of food a lot&lt;br&gt;Irritable&lt;br&gt;Stomach growling&lt;br&gt;Low energy&lt;br&gt;Nausea, upset stomach&lt;br&gt;Getting harder to concentrate</td>
</tr>
<tr>
<td>4</td>
<td><strong>Starving</strong>&lt;br&gt;Feeling shaky&lt;br&gt;Decreased physical coordination&lt;br&gt;Experiencing a headache&lt;br&gt;Unable to concentrate&lt;br&gt;May feel sleepy&lt;br&gt;May faint</td>
</tr>
</tbody>
</table>

Source: Every BODY Is A Somebody, Body Image Coalition of Peel, 1997
Name: __________________________

**Personal Food Plan**

**Personal Goal:**

<table>
<thead>
<tr>
<th>Meals</th>
<th>Serving Sizes</th>
<th>Food Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snack</td>
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<td></td>
</tr>
<tr>
<td>Lunch</td>
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</tr>
<tr>
<td>Snack</td>
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<tr>
<td>Dinner</td>
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<td></td>
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<tr>
<td>Snack</td>
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<table>
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<tr>
<th>Challenges</th>
<th>Solutions</th>
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</table>

*Discover Healthy Eating! A Teacher’s Resource for Grades 1 – 8, 2009*
#### BALANCE YOUR MEAL

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Existing food groups</th>
<th>Complete meal with…</th>
<th>Healthy adaptations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong> spaghetti with meat sauce</td>
<td>Grain Products, Vegetables &amp; Fruit, Meat &amp; Alternatives</td>
<td>lean ground beef</td>
<td></td>
</tr>
<tr>
<td></td>
<td>milk or yogurt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Additional Resources

<table>
<thead>
<tr>
<th>Healthy Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Canada's Food Guide</strong></td>
</tr>
<tr>
<td>- Eating Well with Canada’s Food Guide</td>
</tr>
<tr>
<td>- Eating Well with Canada’s Food Guide - A Resource for Educators and Communicators</td>
</tr>
<tr>
<td>- Eating Well with Canada’s Food Guide - <a href="#">Food Guide for First Nations, Inuit and Métis</a></td>
</tr>
<tr>
<td>- My Food Guide Interactive tool to create personalized guide or Take the Guided Tour</td>
</tr>
<tr>
<td>- Translated versions of Canada’s Food Guide (10 languages)</td>
</tr>
<tr>
<td><strong>Local Health Unit (see directory)</strong></td>
</tr>
<tr>
<td>Interactive guide and downloadable PDF of Canada’s Food Guide available at: <a href="http://www.healthcanada.gc.ca/foodguide">www.healthcanada.gc.ca/foodguide</a> Tel.: 1-866-225-0709</td>
</tr>
</tbody>
</table>

| **EatRight Ontario** |
| Ask-a-dietitian service to answer your questions about various nutrition topics via email or phone. Website contains various topics on healthy eating. |
| **1-877-510-5102** (to call a Registered Dietitian) |
| [www.eatrightontario.ca](http://www.eatrightontario.ca) |

| **Dairy Farmers of Canada (Ontario)** |
| **Teach Nutrition** |
| Curriculum based programs and teacher workshops for grades 1 to 8: |
| - K-3 Power to Play, Grow with Milk |
| - 4-6 Power for Bones, Digest Quest, Body Image |
| - 7-8 Stretch your Noodle |
| [www.teachnutrition.org](http://www.teachnutrition.org) Tel: (905) 821-8970 Toll Free: 1-866-392-9929 Fax: (905) 821-0585 |

| **Canadian Egg Marketing Agency** |
| See the ‘Educating Egg Catalogue’ |
| - Activity booklets (k-6) |
| - Teaching module (Gr. 7-12) |
| Downloadable PDFs available at: [http://www.canadaegg.ca](http://www.canadaegg.ca) Click on All About Eggs |
| Print material: [Egg Farmers of Ontario](#) Tel: (905) 858-9790 |

258
<table>
<thead>
<tr>
<th>Publications and Resources</th>
<th>Ordering Details</th>
<th>Cost</th>
</tr>
</thead>
</table>
| **Ontario Agri-Food Education Inc. (OAFE)** | Fax: (905) 858-1589  
Email: eggboard@getcracking.ca                                                                                 | No Charge|
| The Teacher's Toolkit is a reference guide of factual information and resources related to the agri-food industry. | Curriculum connections for Grades 1 to 8 can be found at http://www.oafe.org/user_files/articles/toolkit_oafe.pdf. You can also go to www.oafe.org and click ‘resources’. | No Charge|
| **Canadian Produce Marketing Association: 5 to 10 a day**                                               | www.5to10aday.com  
Vegetable and fruit promotional website, including posters, kid newsletters and brochures. | No Charge|
| • Farm to Market Teacher’s Resource  
• Freggie’s Eat Smart Nutrition Unit for Grade 3 |                                                                                     |          |
| Webpage provides multiple links to nutrition information.                                                                 |                                                                                     |          |
| **OPHEA Menu of Choices**                                                                        | www.menuofchoices.ca                                                             | No Charge|
| An online resource that provides information and tools to support schools in addressing healthy eating. The Menu of Choices Elementary Staff Room Calendar is sent to all schools that register before September. |                                                                                     |          |
| **Mission Nutrition Teaching Toolkits**                                                           | Downloadable PDFs and order from at: www.missionnutrition.ca  
Tel: 1-888-453-6374                                                                 | No Charge|
| Curriculum based healthy living lessons and activities including teacher notes.  
• Grades K to 8                                                                                     |                                                                                     |          |
<p>| <strong>Nutrition Fact Sheets</strong>                                                                        | Local Health Unit (see directory)                                               | No charge|</p>
<table>
<thead>
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<th>Publications and Resources</th>
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<tbody>
<tr>
<td></td>
<td>Downloadable PDF free of charge.</td>
<td></td>
</tr>
<tr>
<td>Weight of the World Challenge</td>
<td><a href="http://www.cbc.ca/weightoftheworld">http://www.cbc.ca/weightoftheworld</a>&lt;br&gt;1-800-267-7710</td>
<td>$49</td>
</tr>
<tr>
<td>A multi-resource challenge created to address the increasing problem of obesity among our children.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Include a user guide, activities, and a 51 minute NFB / CBC - The Nature of Things with David Suzuki co-production video (2003).</td>
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<tr>
<td>Elementary Teachers’ Federation of Ontario-Reflections of Me</td>
<td><a href="http://www.etfo.ca/IssuesinEducation/BodyImage/Pages/default.aspx">http://www.etfo.ca/IssuesinEducation/BodyImage/Pages/default.aspx</a></td>
<td>$200</td>
</tr>
<tr>
<td></td>
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<tr>
<td>The Student Body: Promoting Health at Any Size</td>
<td>Sick Kids / IWK Health Center&lt;br&gt;<a href="http://research.aboutkidshealth.ca/thestudentbody/home.asp">http://research.aboutkidshealth.ca/thestudentbody/home.asp</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Learning modules for grades 4, 5, and 6&lt;br&gt;Topics include media, healthy eating, active living, and adult role modeling.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Image Kits</td>
<td>Body Image Works Inc.&lt;br&gt;<a href="http://www.bodyimageworks.com">http://www.bodyimageworks.com</a>&lt;br&gt;Tel: (403) 243-5383&lt;br&gt;Fax: (403) 243-5439&lt;br&gt;E-mail: <a href="mailto:bodyimageworks@shaw.ca">bodyimageworks@shaw.ca</a></td>
<td>$550</td>
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<tr>
<td>Publications and Resources</td>
<td>Ordering Details</td>
<td>Cost</td>
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<td>------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Body Sense</strong></td>
<td>Website for athletes and coaches on promoting a positive body image.</td>
<td>Canadian Centre for Ethics in Sport <a href="http://www.bodysense.ca">www.bodysense.ca</a></td>
</tr>
<tr>
<td><strong>Dove: Campaign for Real Beauty</strong></td>
<td>Interactive website with self-esteem and media literacy activities.</td>
<td><a href="http://www.campaignforrealbeauty.ca">www.campaignforrealbeauty.ca</a></td>
</tr>
<tr>
<td><strong>Professional Training Workshop</strong></td>
<td>Workshop for teachers, staff and parents on promoting positive body image.</td>
<td>Dr. Gail McVey, Director Pat Valenti, Admin.</td>
</tr>
<tr>
<td><strong>Every BODY Is A Somebody</strong></td>
<td>An active learning program to promote healthy body image, positive self-esteem, healthy eating and an active lifestyle for female adolescents.</td>
<td>Body Image Coalition of Peel Tel: (905) 791- 7800 x. 2063 Fax: (905) 458-5158 Downloadable order form at: <a href="http://www.bodyimagecoalition.org/everybody2.html">http://www.bodyimagecoalition.org/everybody2.html</a></td>
</tr>
<tr>
<td><strong>Healthy Weight</strong></td>
<td>Website focused on a “health at every size” approach to promoting healthy lifestyles.</td>
<td><a href="http://www.healthyweight.net">www.healthyweight.net</a></td>
</tr>
<tr>
<td><strong>Just for Girls Program</strong></td>
<td>Facilitator program manual by Sandra Friedman 2003</td>
<td>Salal Books <a href="http://www.salal.com">www.salal.com</a></td>
</tr>
<tr>
<td><strong>Just for Boys Program</strong></td>
<td></td>
<td>Salal Books</td>
</tr>
<tr>
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<td>Cost</td>
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<td>------------------------------------------------------------------------------------------</td>
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<tr>
<td>Facilitator program manual by Sandra Friedman 2007</td>
<td><a href="http://www.salal.com">www.salal.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>Reviving Ophelia: Saving the Selves of Adolescent Girls</strong></td>
<td></td>
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<tr>
<td>Book by Mary Pipher (1994)</td>
<td>Random House</td>
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</tr>
<tr>
<td><strong>When Girls Feel Fat: Helping girls through adolescents</strong></td>
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</tr>
<tr>
<td>“I’m Like, SO Fat!” Helping Your Teen Make Healthy Choices about Eating and Exercise in a Weight-Obsessed World</td>
<td></td>
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<tr>
<td>Book by Dianne Neumark-Sztainer</td>
<td>The Guilford Press</td>
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<tr>
<td><strong>Videos</strong></td>
<td></td>
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<tr>
<td><strong>Body Talk 2: It's a New Language</strong> (2001)</td>
<td>Available in DVD or VHS</td>
<td>$89.95 + S/H</td>
</tr>
<tr>
<td>20 minute video with Facilitator’s Booklet.</td>
<td><a href="http://www.thebodypositive.org">www.thebodypositive.org</a></td>
<td>(US dollars)</td>
</tr>
<tr>
<td>• Recommended for students 9-12 years of age.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Body Talk 3: My Special Body Video</strong></td>
<td>Available in DVD or VHS</td>
<td>$89.95 + S/H</td>
</tr>
<tr>
<td>20 minute video with Facilitator’s Booklet.</td>
<td><a href="http://www.thebodypositive.org">www.thebodypositive.org</a></td>
<td>(US dollars)</td>
</tr>
<tr>
<td>• Recommended for students 6-9 years of age.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Confident for Life: Kids and Body Image</strong></td>
<td>Available at <a href="http://www.bodyimageworks.com">www.bodyimageworks.com</a></td>
<td>$80 + S/H</td>
</tr>
<tr>
<td>28 minute video including a lesson plan and worksheet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Recommended for grades 4 -6.</td>
<td></td>
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<tr>
<td><strong>Gossipping, Taunting, Bullying: It's All Harassment</strong> (2001)</td>
<td>National Professional Resources, Inc.</td>
<td>$139.95</td>
</tr>
<tr>
<td>24 minute video discussing how it feels to be a victim of gossip, taunts and</td>
<td><a href="http://www.nprinc.com/bully/vgtb.htm">http://www.nprinc.com/bully/vgtb.htm</a></td>
<td></td>
</tr>
<tr>
<td>Publications and Resources</td>
<td>Ordering Details</td>
<td>Cost</td>
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<tr>
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<tr>
<td>bullying.</td>
<td></td>
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<tr>
<td>• Recommended for grades 5 to 9.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 minutes video including a guide book. Addressed self-esteem and modern cultural influences.</td>
<td>Kinetic Inc., Toronto Tel: (416) 538-6613 1-800-263-6910</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
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<tr>
<td>Health Canada-Healthy Living</td>
<td><a href="http://www.he-sc.gc.ca/hl-vs/index_e.html">http://www.he-sc.gc.ca/hl-vs/index_e.html</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Webpage with various healthy lifestyle information.</td>
<td><a href="http://www.heartandstroke.ca">www.heartandstroke.ca</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Heart and Stroke Foundation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website with Heart Healthy Lesson Plans, Physical Activity Handbooks and skill posters.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Grade K to 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media Awareness Network</td>
<td><a href="http://www.media-awareness.ca">http://www.media-awareness.ca</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Resources and information of media literacy including lesson plans and activities.</td>
<td></td>
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</tr>
<tr>
<td>Ontario Ministry of Education and Training</td>
<td><a href="http://www.edu.gov.on.ca">www.edu.gov.on.ca</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Physical Activity</td>
<td></td>
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<tr>
<td>Teacher Resource Booklets by grade Includes student activity ideas</td>
<td></td>
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<tr>
<td>Publications and Resources</td>
<td>Ordering Details</td>
<td>Cost</td>
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<tr>
<td>-----------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Ontario Physical Health Education Association</strong></td>
<td><a href="http://www.ophea.net">www.ophea.net</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Teacher resource with lesson plans and activity ideas.</td>
<td></td>
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</tr>
<tr>
<td><strong>The Physical Activity Resource Centre (PARC)</strong></td>
<td><a href="http://www.ophea.net/parc/">http://www.ophea.net/parc/</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Supports Physical Activity Promoters across Ontario through consultation, training, networking, referrals and Information-sharing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canada’s Physical Activity Guide for Children and Youth</strong></td>
<td>Local Health Unit (see directory) Downloadable PDF available at: <a href="http://www.paguide.com">www.paguide.com</a></td>
<td>No Charge</td>
</tr>
<tr>
<td><strong>Canadian Association for Health Physical Education, Recreation, and Dance (CAHPERD)</strong></td>
<td><a href="http://www.cahperd.ca">www.cahperd.ca</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>An organization that advocates and educates for quality physical and health education programs within the school and community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canada's Report Card on Physical Activity for Children and Youth</strong></td>
<td><a href="http://www.jeunesenforme.ca/programs_2008reportcard.cfm">www.jeunesenforme.ca/programs_2008reportcard.cfm</a></td>
<td>No Charge</td>
</tr>
<tr>
<td><strong>Dental Health</strong></td>
<td></td>
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<tr>
<td><strong>Oral Health Education Data Base</strong></td>
<td><a href="http://www.healthyteeth.org">www.healthyteeth.org</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Interactive website for students.</td>
<td></td>
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<tr>
<td><strong>Canadian Dental Association</strong></td>
<td><a href="http://www.cda-adc.ca">www.cda-adc.ca</a></td>
<td>No Charge</td>
</tr>
<tr>
<td>Dental Care for Children</td>
<td></td>
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</tbody>
</table>
### Public Health Unit Directory

#### ERIE ST. CLAIR

<table>
<thead>
<tr>
<th>Health Unit</th>
<th>Address</th>
<th>Telephone</th>
<th>Fax</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chatham-Kent Health Unit</strong></td>
<td>P.O. Box 1136, 435 Grand Avenue West, Chatham, ON</td>
<td>Tel: 519-352-7270</td>
<td>Fax: 519-352-2166</td>
<td><a href="http://www.chatham-kent.ca">www.chatham-kent.ca</a></td>
</tr>
<tr>
<td><strong>Lambton Health Unit</strong></td>
<td>Community Health Services Department, 160 Exmouth Street, Point Edward, ON</td>
<td>Tel: 519-383-8331</td>
<td>Fax: 519-383-7092</td>
<td><a href="http://www.lambtonhealth.on.ca">www.lambtonhealth.on.ca</a></td>
</tr>
<tr>
<td><strong>Windsor-Essex County Health Unit</strong></td>
<td>1005 Ouellette Avenue, Windsor, ON</td>
<td>Tel: 519-258-2146</td>
<td>Fax: 519-258-6003</td>
<td><a href="http://www.wechealthunit.org">www.wechealthunit.org</a></td>
</tr>
</tbody>
</table>

#### SOUTH WEST

<table>
<thead>
<tr>
<th>Health Unit</th>
<th>Address</th>
<th>Telephone</th>
<th>Fax</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td><strong>Huron County Health Unit</strong></td>
<td>Health and Library Complex, Highway 4 South, R.R. 5, P.O.Box 1120, Clinton, ON</td>
<td>Tel: 519-482-3416</td>
<td>Fax: 519-482-7820</td>
<td><a href="http://www.huroncounty.ca/healthunit/">www.huroncounty.ca/healthunit/</a></td>
</tr>
<tr>
<td><strong>Middlesex-London Health Unit</strong></td>
<td>50 King Street, London, ON</td>
<td>Tel: 519-663-5317</td>
<td>Fax: 519-663-9581</td>
<td><a href="http://www.healthunit.com">www.healthunit.com</a></td>
</tr>
<tr>
<td><strong>Grey Bruce Health Unit</strong></td>
<td>920 - 1st Avenue West, Owen Sound, ON</td>
<td>Tel: 519-376-9420</td>
<td>Toll: 1-800-263-3456</td>
<td><a href="http://www.publichealthgreybruce.on.ca">www.publichealthgreybruce.on.ca</a></td>
</tr>
<tr>
<td><strong>Haldimand-Norfolk Health Unit</strong></td>
<td>P. O. Box 247, 12 Gilbertson Drive, Simcoe, ON</td>
<td>Tel: 519-426-6170</td>
<td>Fax: 519-426-9974</td>
<td><a href="http://www.hnhu.org">www.hnhu.org</a></td>
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<tr>
<td>Health Unit</td>
<td>Address</td>
<td>Tel:</td>
<td>Toll:</td>
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<tr>
<td><strong>Elgin-St. Thomas Health Unit</strong></td>
<td>99 Edward Street</td>
<td>519-631-9900</td>
<td>1-800-922-0096</td>
<td>519-633-0468</td>
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<tr>
<td></td>
<td>St. Thomas, ON N5P 1Y8</td>
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<tr>
<td><strong>Perth District Health Unit</strong></td>
<td>653 West Gore Street</td>
<td>519-271-7600</td>
<td></td>
<td>519-271-2195</td>
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<tr>
<td></td>
<td>Stratford, ON N5A 1L4</td>
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<tr>
<td><strong>Oxford County</strong></td>
<td>410 Buller Street</td>
<td>519-539-9800</td>
<td></td>
<td>519-539-6206</td>
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<tr>
<td></td>
<td>Woodstock, ON N4S 4N2</td>
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<td><strong>WATERLOO WELLINGTON</strong></td>
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<tr>
<td><strong>Wellington-Dufferin-Guelph Health Unit</strong></td>
<td>474 Wellington Road 18</td>
<td>519-843-2460</td>
<td>1-800-265-7293</td>
<td>519-843-2321</td>
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<tr>
<td></td>
<td>Suite 100</td>
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<td>RR #1</td>
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<td></td>
<td>Fergus, ON N1M 2W3</td>
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<tr>
<td><strong>Grey Bruce Health Unit</strong></td>
<td>920 - 1st Avenue West</td>
<td>519-376-9420</td>
<td>1-800-263-3456</td>
<td>519-376-0605</td>
</tr>
<tr>
<td></td>
<td>Owen Sound, ON N4K 4K5</td>
<td></td>
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<tr>
<td><strong>Region of Waterloo, Public Health</strong></td>
<td>P.O. Box 1633</td>
<td>519-883-2000</td>
<td></td>
<td>519-883-2241</td>
</tr>
<tr>
<td></td>
<td>99 Regina Street South, 3rd floor</td>
<td></td>
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<td></td>
<td>Waterloo, ON N2J 4V3</td>
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<tr>
<td><strong>HAMILTON NIAGARA HALDIMAND BRANT</strong></td>
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<tr>
<td><strong>Brant County Health Unit</strong></td>
<td>194 Terrace Hill Street</td>
<td>519-753-4937</td>
<td></td>
<td>519-753-2140</td>
</tr>
<tr>
<td></td>
<td>Brantford, ON N3R 1G7</td>
<td></td>
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</tr>
<tr>
<td><strong>City of Hamilton</strong></td>
<td>1 Hughson Street North</td>
<td>905-546-3500</td>
<td></td>
<td>905-546-4075</td>
</tr>
<tr>
<td></td>
<td>Hamilton, ON L8R 3L5</td>
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</tbody>
</table>
MISSISSAUGA HALTON

Halton Region Health Department
1151 Bronte Road
Oakville, Ontario
L6M 3L1

Tel : 905-825-6060
Toll : 1-866-442-5866
TTY : 905-827-9833
Fax : 905-825-8588
Website : www.region.halton.on.ca/health/

Toronto Public Health
277 Victoria Street, 5th Floor
Toronto, ON M5B 1W2

Tel : 416-392-7401
Fax : 416-392-0713
Website : www.toronto.ca/health/index.htm

CENTRAL

York Region Public Health Services
Box 147
17250 Yonge Street
Newmarket, ON L3Y 6Z1

Tel : 905-895-4511
Fax : 905-895-3166
Toll : 1-800-361-5653 (Health Connection Line)
Web : www.region.york.on.ca/Services

CENTRAL EAST

Peterborough County-City Health Unit
10 Hospital Drive
Peterborough, ON K9J 8M1

Tel : 705-743-1000
TTY : 705-743-4700
Fax : 705-743-2897
Web : pcchu.peterborough.on.ca

Haliburton, Kawartha, Pine Ridge
200 Rose Glen Road
Port Hope, ON L1A 3V6

Tel : 905-885-9100
Toll : 1-866-888-4577
Fax : 905-885-9551
Web : www.hkpr.on.ca/

Durham Region Health Department
605 Rossland Road East
P.O. Box 730
Whitby, ON L1N 0B2

Tel : 905-668-7711
Fax : 905-666-6214
Toll Free : 1-800-841-2729
Web:www.region.durham.on.ca/health.asp?nr=departments/health/healthinside.htm
SOUTH EAST

Hastings and Prince Edward Counties Health Unit
179 North Park Street
Belleville, ON  K8P 4P1
Tel : 613-966-5500
Fax : 613-966-9418
Web site : www.hpechu.on.ca

Leeds, Grenville and Lanark District Health Unit
458 Laurier Boulevard
Brockville, ON  K6V 7A3
Tel : 613-345-5685
Fax : 613-345-2879
Web : www.healthunit.org

Kingston, Frontenac and Lennox & Addington
221 Portsmouth Avenue
Kingston, ON  K7M 1V5
Tel : 613-549-1232
Toll : 1-800-267-7875
Fax : 613-549-7896
Web : www.healthunit.on.ca

Haliburton, Kawartha, Pine Ridge
200 Rose Glen Road
Port Hope, ON  L1A 3V6
Tel : 905-885-9100
Toll : 1-866-888-4577
Fax : 905-885-9551
Web : www.hkpr.on.ca/

CHAMPLAIN

Leeds, Grenville and Lanark District Health Unit
458 Laurier Boulevard Brockville, ON
K6V 7A3
Tel : 613-345-5685
Fax : 613-345-2879
Web : www.healthunit.org

Eastern Ontario Health Unit
1000 Pitt Street
Cornwall, ON  K6J 5T1
Tel : 613-933-1375
Toll : 1-800-267-7120
Fax : 613-933-7930
Web : www.eohu.on.ca

Ottawa Public Health
100 Constellation Cres.
Ottawa, ON  K2G 6J8
Tel : 613-580-6744
Toll : 1-866-426-8885
Fax : 613-580-9601
Web:www.ottawa.ca/residents/health/index_en.html
Renfrew County and District Health Unit
7 International Drive
Pembroke, ON K8A 6W5
Tel : 613-735-8653
Toll : 1-800-267-1097
Fax : 613-735-3067
Web : www.rcdhu.com

NORTH SIMCOE MUSKOKA

Simcoe Muskoka District Health Unit
15 Sperling Drive
Barrie, ON L4M 6K9
Tel : 705-721-7520
Health Connection (Toll free) 1-877-721-7520
Fax : 705-721-1495
Web : www.simcoemuskokahealth.org

Grey Bruce Health Unit
920 - 1st Avenue West
Owen Sound, ON N4K 4K5
Tel : 519-376-9420
Toll : 1-800-263-3456
Fax : 519-376-0605
Web : www.publichealthgreybruce.on.ca/

NORTH EAST

Northwestern Health Unit
21 Wolsley Street
Kenora, ON P9N 3W7
Tel : 807-468-3147
Toll : 1-800-830-5978
Fax : 807-468-4970
Web : www.nwhu.on.ca

Timiskaming Health Unit
P.O. Box 1240
221 Whitewood Avenue
New Liskeard, ON P0J 1P0
Tel : 705-647-4305
Fax : 705-647-5779
Web : www.timiskaminghu.com

North Bay Parry Sound District Health Unit
681 Commercial Street
North Bay, ON P1B 4E7
Tel : 705-474-1400
Fax : 705-474-8252
Web : www.nbdhu.on.ca

The District of Algoma Health Unit
Civic Centre, 6th Floor
99 Foster Drive
Sault Ste. Marie, ON P6A 5X6
Tel : 705-759-5287
Toll : 1-866-892-0172
Fax : 705-759-1534
Web : www.ahu.on.ca
## Discover Healthy Eating! A Teacher’s Resource for Grades 1-8

2009

**Sudbury and District Health Unit**

1300 Paris Street  
Sudbury, ON P3E 3A3  
Tel : 705-522-9200  
Fax : 705-522-5182  
Site web : [www.sdhu.com](http://www.sdhu.com)

**Porcupine Health Unit**

P.O. Bag 2012  
169 Pine Street South  
Timmins, ON P4N 8B7  
Tel : 705-267-1181  
Fax : 705-264-3980  
Web : [www.porcupinehu.on.ca](http://www.porcupinehu.on.ca)

### NORTH WEST

**Northwestern Health Unit**

21 Wolsley Street  
Kenora, ON P9N 3W7  
Tel : 807-468-3147  
Toll : 1-800-830-5978  
Fax : 807-468-4970  
Web : [www.nwhu.on.ca](http://www.nwhu.on.ca)

**Thunder Bay District Health Unit**

999 Balmoral Street  
Thunder Bay, ON P7B 6E7  
Tel : 807-625-5900  
Toll : 1-888-294-6630 (807 area only)  
Fax : 807-623-2369  
Web : [www.tbdhu.com](http://www.tbdhu.com)
Dear Grade 1 Parent / Guardian

This year we will be using a health resource called *Discover Healthy Eating!* to teach the Healthy Eating section of the *Health and Physical Education Curriculum*.

Your child will learn how to classify foods according to *Canada’s Food Guide* and how to select foods from different food groups for healthy eating. This will help your child develop lifelong healthy eating habits. All four food groups are important in healthy eating but the amounts needed from each group are different; *Canada’s Food Guide* recommends more servings from the outer arcs of the rainbow.

Your child will also discover that it is important to select snacks from the Vegetables & Fruit and Grain Products food groups. Research indicates that most children do not meet the minimum five servings of Vegetables & Fruit so focussing on foods from this food group as well as the Grain Products group is recommended. As well, your child will learn ways to care for his or her teeth.

As part of this section of the Curriculum we may use food samples. Please indicate on the attached form if your child has any specific food restrictions, e.g., allergies or intolerances. We would also like to know about any specific food-related requirements your family has, e.g., vegetarianism or religious practices. Tear off and return the attached form with your child.

Please call me if you have any questions.

Sincerely

---

Discover Healthy Eating!

My child (name) __________________________________________________________________ cannot eat the following foods:

(please print)

________________________________________________________________________________________

Reason (circle): allergy intolerance religion vegetarianism

Parent/Guardian signature: _______________________________ Date: ______________________________
Dear Grade 2 Parent / Guardian

This year we will be using a health resource called Discover Healthy Eating! to teach the healthy eating section of the Health and Physical Education Curriculum. Discover Healthy Eating! is designed to meet the specific expectations for each grade of the Curriculum. The activities will cover concepts from Canada’s Food Guide and will help your child develop lifelong healthy eating habits.

Through interactive and fun activities, your child will learn to identify a balanced diet and apply decision-making skills to create menus for healthy eating.

He/she will begin to form an understanding of the relationship between healthy eating and health and will be able to describe the importance of food to the body (e.g., for energy and growth).

Your child will also be able to explain the negative effects of poor nutrition on healthy teeth and the importance of regular brushing and visits to the dentist.

As part of this section of the Curriculum we may use food samples. Please indicate on the attached form if your child has any specific food restriction, e.g., allergies or intolerances. We would also like to know about any specific food-related requirements your family has, e.g., vegetarianism or religious practices. Tear off and return the attached form with your child.

Please call me if you have any questions.

Sincerely

Discover Healthy Eating!

My child (name) ________________________________________ cannot eat the following foods: (please print)

________________________________________________________________________________________

Reason (circle): allergy intolerance religion vegetarianism

Parent/Guardian signature: _________________________________
Date: _______________________
Dear Grade 3 Parent / Guardian

This year we will be using a health resource called *Discover Healthy Eating!* to teach the Healthy Eating section of the *Health and Physical Education Curriculum*. *Discover Healthy Eating!* is designed to meet the Specific Expectations for each grade of the Curriculum. These activities will cover the concepts from *Canada’s Food Guide* and will help your child develop lifelong healthy eating habits.

Your child will learn how to classify foods from various cultures according to the food groups in *Canada’s Food Guide*. Eating habits are unique and people from different parts of the world can choose different, but equally healthy, meals.

Your child will also learn the benefits of healthy food choices, physical activity, and healthy bodies. The class will discuss how they feel more energetic and able to concentrate when they eat breakfast. As well, your child will learn about how to prevent tooth decay.

As part of this section of the Curriculum we may use food samples. Please indicate on the attached form if your child has any specific food restrictions, e.g., allergies or intolerances. We would also like to know about any specific food-related requirements your family has, e.g., vegetarianism or religious practices. Tear off and return the attached form with your child.

Please call me if you have any questions.

Sincerely

---

*Discover Healthy Eating!*

My child (name) ______________________________________ cannot eat the following foods: (please print)

________________________________________________________

Reason (circle):  allergy  intolerance  religion vegetarianism

Parent/Guardian signature: __________________________
Date: ______________________
Dear Grade 4 Parent / Guardian

This year we will be using a nutrition and health resource called Discover Healthy Eating! to teach the healthy eating section of the Health and Physical Education Curriculum. Discover Healthy Eating is designed to meet the specific expectations for each grade of the curriculum. The activities will cover concepts from Canada’s Food Guide and will help your child develop lifelong healthy eating habits.

Your child will learn about the benefits of choosing “everyday foods” and of eating fewer “sometimes foods”. “Everyday foods” are those which are high in nutrients, such as whole grain and enriched cereals and breads, rice, pastas, dark green and orange vegetables and orange fruit, lower fat milk products, leaner meats, poultry and fish as well as dried peas, beans and lentils. “Sometimes foods” such as cookies, cakes, fruit drinks, fruit leathers, fried foods, pop and chips are low in nutrients.

Your child will also discover some of the factors that influence his/her food choices such as culture, family traditions, friends, TV and individual preferences. Your child will complete a one day food record, analyze his/her food selections and determine whether or not they are making wise food choices.

He/she will learn that children come in many shapes and sizes, and that body size and shape is determined largely by heredity. He/she will learn about other factors that influence body shape and size such as growth, and eating and physical activity habits.

Please call me if you have any questions.

Sincerely
Dear Grade 5 Parent / Guardian

This year we will be using a nutrition and health resource called Discover Healthy Eating! to teach the healthy eating section of the Health and Physical Education Curriculum. Discover Healthy Eating is designed to meet the specific expectations for each grade of the curriculum. The activities will cover concepts from Canada’s Food Guide and will help your child develop lifelong healthy eating habits.

Through the coming year, your child will learn how to analyse information that has an impact on healthy eating practices. For example, your child will be learning about the purpose and function of calories and the major food nutrients; how to identify important information on food labels and how to use food labels to make healthy food choices.

Your child will also learn about the influence of media on body image and self-esteem and that changes in our bodies sometimes affect our eating habits.

Please call me if you have any questions.

Sincerely
Dear Grade 6 Parent / Guardian

This year we will be using a nutrition and health resource called *Discover Healthy Eating!* to teach the healthy eating section of the *Health and Physical Education Curriculum*. *Discover Healthy Eating* is designed to meet the specific expectations for each grade of the curriculum. The activities will cover concepts from *Canada’s Food Guide* and will help your child develop lifelong healthy eating habits.

Your child will learn that children come in many shapes and sizes, and that body size and shape is determined largely by heredity. He/she will learn about other factors that influence self-esteem, body shape and size such as growth, peers, and eating and physical activity habits.

Your child will discover some of the factors that influence his/her food choices such as culture, family traditions, friends, TV and individual preferences. Your child will analyze his/her food selections at home, in school and in restaurants and determine whether or not they are making wise food choices.

Your child will learn about the benefits that healthy eating brings to a healthy active lifestyle.

Please call me if you have any questions.

Sincerely