Nutrition Resource Kits

Grade Eight – Lesson Plans



Grade Eight - Lesson Plans

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Introduction

This Nutrition Resource Kit is designed for Grade 8. The manual is a curriculum-based tool that is divided into sections that promote healthy living, following the Alberta Education Health and Life Skills Curriculum. Each section includes: Background Information for Teachers, References, and Student Activities. Also included is basic information on Canada's Food Guide, which provides a review of material covered in primary grades, as well as a knowledge base for material to be covered in intermediate grades.

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

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

Outcome Objectives¹

Students will be able to:

Examine the relationship between choices and resulting consequences.
Analyze the impact of positive and changing choices on health
throughout the life span.
Develop personal strategies to deal with pressure to have a certain
look/lifestyle.
Evaluate personal food choices, and identify strategies to maintain
optimal nutrition when eating away from home.
Analyze possible negative consequences of substance abuse; e.g. fetal
alcohol syndrome, drinking and driving.
Develop strategies to effectively access health information and health
services in the community.
Determine and develop time management strategies/skills to establish
personal balance.



¹ Alberta Education. (2002). K-9 Health and Life Skills Outcomes.

Background Information for Teachers: Nutrition

Canada's Food Guide

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

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

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

Amount:

Canada's Food Guide is divided into categories that provide age and gender specific recommendations on the amount of food that should be eaten from each food group each day. Table 1 below provides the recommended number of food guide servings required from each food group for children from 9 years to 18 years of age.

Table 1: Number of Food Guide Servings

	Vegetables and	Grain Products	Milk and	Meat and
	Fruit		Alternatives	Alternatives
Age 9-13	6	6	3-4	1-2
Age 14 – 18	7 (Girls)	6 (Girls)	3-4	2 (Girls)
	8 (Boys)	7 (Boys)	(Girls and Boys)	3 (Boys)

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

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

Type:

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

Vegetables and Fruit

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



- Have vegetables and fruit more often than juice

Grain Products

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

Milk and Alternatives

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

Meat and Alternatives

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

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

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

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

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

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

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



Discovering the Food Groups

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

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

1. Vegetables and Fruit

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

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

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

What is One Food Guide Serving?

- 125 mL ($\frac{1}{2}$ cup) fresh, frozen or canned vegetables
- 125 mL (½ cup) cooked leafy green vegetables
- 250 mL (1 cup) raw leafy green vegetables
- 125 mL (½ cup) fresh, frozen or canned fruit
- 125 mL (½ cup) 100% fruit juice

2. Grain Products

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

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

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



essential nutrients. Choosing half of your grain products as whole grains will help ensure nutrient needs are met!

What is one Food Guide Serving?

- 1 slice of bread
- ½ bagel
- ½ pita or tortilla shell
- 125 mL (½ cup) cooked rice, bulgur or quinoa
- 175 mL (¾ cup) hot cereal
- 30 g cold cereal
- 125 mL (½ cup) cooked pasta or couscous

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

3. Milk and Alternatives

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

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

What is one Food Guide Serving?

- 250 mL (1 cup) milk or fortified soy beverage
- 125 mL (½ cup) canned milk
- 175 mL (³/₄ cup) yogurt or kefir
- $1 \frac{1}{2}$ oz (50g) cheese

4. Meat and Alternatives

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

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

Healthy tips to follow when choosing foods from the Meat and Alternatives group: Try removing excess fat from beef, pork and chicken. Eat bacon, sausages, bologna, and breaded and fried meat



less often. Enjoy lean cuts of meat and fish. Choose foods like baked beans, split pea soup or lentil casserole.

What is one Food Guide Serving?

- 2 ½ oz (75 g) or ½ cup (125 mL) cooked fish, shellfish, poultry, lean meat
- 175 mL (¾ cup) cooked legumes
- 150 g or 175 mL (3/4 cup) tofu
- 2 eggs
- 30 mL (2 Tbsp) peanut butter
- 60 mL (1/4 cup) shelled nuts and seeds

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



Great Start – Eating Breakfast

Research shows that a sound breakfast is a prerequisite for learning.

Breakfast Is the Most Important Meal of the Day

"Breaking the fast" every morning is the most important thing *everyone* can do for their bodies. By morning, it may be eight hours or longer since eating, and breakfast helps replenish blood glucose levels. Glucose is needed to fuel the brain and give the body energy to function properly. Choosing a variety of foods in the morning can ensure that the body gets all the nutrients it needs and can help improve learning and school performance. Children who come to school hungry are disadvantaged when it comes to learning, getting along with their peers and feeling good about themselves.

- The body needs to replenish its fuel with food to break the overnight fast and keep the body energized.
- Eating breakfast can help you stay attentive and do better at school, work and play.
- Breakfast supplies essential nutrients such as carbohydrates, protein, fibre, calcium, iron, zinc and vitamins A, C, D, B6, riboflavin and folic acid that the body needs to stay healthy. These are found in some typical breakfast foods such as cereal, fresh fruit, and milk and fruit juice. These essential nutrients are almost never made up.
- Skipping breakfast will NOT help control weight because the person usually compensates for the lack of energy with high fat or high caloric meals later in the day.

When children come to school hungry and inadequately nourished, they are:

- Less curious, less attentive, less physically active and less responsive socially;
- More irritable, tired, and anxious;
- Easily distracted, lethargic and often cause disruptions in class and cannot concentrate on their studies.

These characteristics result in poor school performance.

Variety

Variety means eating many different kinds of foods prepared in different ways. Choosing a variety of foods allows the child to consume a wide variety of nutrients. Variety also means choosing different foods within each food group as the nutrient content of foods within each group varies.

Variety promotes:

- An adequate intake of essential nutrients.
- The use of foods and cuisines enjoyed by different ethnic and cultural groups.
- The positive and pleasurable aspects of eating by exploring a wide range of foods varying in colour, flavour and texture.



Breakfast on the Run

No time for breakfast? No problem! There are many ways you can eat breakfast on the go. Try preparing breakfast the night before and have "fast-breakfast-grabs" to eat on the way to school.

For example: grab single size yogurt and juice, portable fruit such as bananas and apples, whole-wheat bagels and nuts, seeds and raisins.

Why not try something different! Try a non-traditional breakfast in the morning such as leftovers, pizza or spaghetti. These foods can be eaten at any time during the day.

Try to include at least 3, if not 4, of the four food groups from Canada's Food Guide at every meal.



Student Activities: Nutrition

	How Does Your Food Intake Rate?					
Objectives of	To have students discover what they are eating in comparison to Canada's Food					
Activity	Guide recommendations.					
Teacher Background	Eating Well with Canada's Food Guide					
Information	http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html					
	Eating Well with Canada's Food Guide: A Resource for Educators and Communicators http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index_e.html					
Material Required	Eating Well with Canada's Food Guide					
Material Required	Eating Well with Canada's Food Guide "How Does Your Food Intake Rate?" activity sheet					
	Graph paper or computer program that does graphs					
	Graphi paper of computer program that does graphs					
Instructions	1. Review material in "Eating Well with Canada's Food Guide: A Resource for Educators and Communicators."					
	2. Distribute the activity sheet 3 days prior to activity completion and instruct students to keep treak of everything they have to get and drink					
	instruct students to keep track of everything they have to eat and drink over a 3-day period.					
	3. Following the completion of the 3-day food record, have the students analyze their food intakes. Instruct students to calculate the total number of servings from each food group for each of the three days and then calculate their average daily intakes of each food group.					
	4. Have students design a bar graph to compare their average daily intake of each food group to the recommended intakes in Canada's Food Guide. Remind students that it is more reliable to look at average food intake rather than what we do on individual days.					
	5. By looking at their individual graphs, students should be able to see if they are getting an adequate number of servings from each food group. They will also see if they are below the recommended intake or above the recommended intake.					
	6. Discuss the results. Are certain food groups missed on a regular basis? If so, what nutrients may be low and what are possible health consequences (both short-term and long-term)? Emphasize the importance of consuming adequate servings from each of the four food groups.					
	7. Direct students to set goals to improve their average food intakes.					
	8. Distribute copies of <i>Healthy Eating and Active Living for 13 to 18 years</i> . Available at: http://www.healthyalberta.com/AboutHealthyU/280.htm					



How Does Your Food Intake Rate?

					1001 COO	500	TIICONC	I OUG TIICANG NACE:				
DAY			-				7				M	
Breakfast												
Snacks in AM												
Lunch												
Snacks in PM												
Supper												
Evening Snacks												
Totals for Each Day	Vegetables and Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives	Vegetables and Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives	Vegetables and Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives
Average Daily Intake	ily Intake	\	Vegetables and Fruit ++	nd Fruit)/3 =	Grai (+	Grain Products ++		Milk and Alternatives $(++-)/3 =$	ternatives)/3 =	Me	Meat and Alternatives $-+-+$	rnatives)/3 =
Recommended Daily Amounts	ided Daily ınts	\	Vegetables and Fruit	d Fruit	Grai	Grain Products		Milk and Alternatives	ternatives	Me Me	Meat and Alternatives	natives

Refer to Eating Well with Canada's Food Guide for the recommended servings for your age and gender.



	Breaking the Fast
Objectives of	This activity allows students to:
Activity	Review some of the reasons why people often skip breakfast
•	Create healthy breakfast ideas
	Develop goals for improving/maintaining good breakfast eating habits
Teacher Background	Eating Well with Canada's Food Guide
Information	http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html
	Breakfast For Learning
	http://www.breakfastforlearning.ca/
	Mission Nutrition http://www.missionnutrition.ca
	http://www.missionnutrion.ca
Material Required	"Breaking the Fast" activity sheet
•	Eating Well with Canada's Food Guide
Instructions	1. Distribute copies of "Breaking the Fast" activity sheet. Instruct students
	to record what they eat for breakfast for 3 days. Note: if completed
	already, students may use their recorded breakfasts from the previous
	activity "How Does Your Food Intake Rate?"
	Once the 2 day feed record has been completed, sale the students as a
	2. Once the 3 day food record has been completed, ask the students as a
	group:How many students ate breakfast on all 3 days?
	 How many students are breakfast on an 3 days? How many students skipped breakfast at least once?
	For those students who skipped breakfast, ask if skipping breakfast is
	a common occurrence for them.
	3. Ask the class to give reasons why a person may skip breakfast. For each
	reason that is given, ask for a solution to the excuse. Record ideas on the
	board.
	4. Have students brainstorm why breakfast is important. Record the
	reasons on the activity sheets and on the classroom board. (Refer to
	Teacher Background on Breakfast)
	5. Brainstorm quick and easy breakfast ideas. Remember that a good
	breakfast has at least three of the food groups from Canada's Food
	Guide, and choices should be limited in sugar and fat. Don't limit ideas
	to traditional breakfast foods. Record ideas on the activity sheets and on
	the classroom board.
	6. Have students develop a goal to improve/maintain good breakfast eating
	habits. Allow some of the students to share their ideas.





Breaking the Fast



Breakfast means to "break the fast". Our bodies fast over night, and breakfast is the time to re-fuel our bodies!

Let's see what you eat for breakfast! Record what you eat for breakfast for three consecutive days:

What are some solutions to prevent missing breakfast?

Why is breakfast important?

List some quick and easy breakfast ideas. Remember that a good breakfast has at least 3 food groups from Canada's Food Guide, and choices should be limited in sugar and salt. Be creative!

Write down a goal to improve or maintain your breakfast eating habits based on your 3-day food record.

I will eat...



	FolateAre You Getting Enough?
Objectives of	To have students analyze their own diets to determine if they are receiving
Activity	adequate folate.
Teacher Background	Information on Folate- Linus Pauling Institute
Information	http://lpi.oregonstate.edu/infocenter/vitamins/fa/
	A Consumers Guide to Dietary Reference Intakes (Health Canada)
	http://www.hc-sc.gc.ca/fn-an/nutrition/reference/cons info-guide cons-eng.php
Material Required	"FolateAre You Getting Enough?" activity sheet
Instructions	1. Why look at folate intake? Distribute copies of the handout "FolateAre
	You Getting Enough?" and discuss the main points with the class.
	2. After the discussion, ask students to name three reasons why there is concern about getting enough folate in the diet. (Reasons include: Periods of rapid growth e.g. adolescence; prevention of neural tube defects; preventative role in heart health)
	3. Using the information on the handout, instruct students to roughly calculate their usual intakes of folate.
	4. Ask students to think of how their own folate intake could be improved. Use the table in the handout to identify foods that could be included on a more regular basis.



Folate...Are You Getting Enough?

What is folate?

Folate is a B vitamin naturally found in foods. Folic acid is the form of this vitamin when added to foods or in vitamin supplements. During periods of rapid growth, the body's need for this vitamin increases. The recommended amount of folate for boys and girls age 9-13 years is 0.30-0.40mg. Folate plays protective roles in heart health and in preventing neural tube defects.

What is a Neural Tube Defect?

A neural tube defect can occur in a baby. A baby's neural tube is formed early in pregnancy and is key part of the central nervous system. If the neural tube fails to close properly, the baby has a neural tube defect affecting the baby's nerve and muscle development.

Eat Right...

Most of us get some folate in our diet every day. The best source of folate is plants. Folic acid has also been added to some foods such as enriched white flour and pastas. The table below lists sources of folate. A well balanced diet includes a variety of foods from Canada's Food Guide.

Food Group	Excellent Source of Folate	Good Source of Folate	Source of Folate
-	(0.055mg or more)	(0.033mg or more)	(0.011mg or more)
Vegetables & Fruit	Romaine lettuce	Corn	Cooked carrots
	Orange juice	Bean sprouts	Beet greens
	Pineapple juice	Cooked broccoli	Sweet potato
	Cooked spinach	Green peas	Snow peas
	Asparagus	Brussels sprouts	Summer or winter squash
		Beets	Rutabaga
		Orange	Cabbage
		Honeydew	Cooked green beans
		Raspberries	Banana
		Blackberries	Grapefruit
		Avocado	Strawberries
			Cantaloupe
Grain Products		Wheat germ	Breakfast cereals
			Whole wheat + white bread
			Pasta
Milk & Alternatives			Milk, all types
Meats &	Cooked fava, kidney, roman, soy	Cooked lima beans	Cashews + walnuts
Alternatives	and white beans	Roasted peanuts	Egg
Antel matrices	Chickpeas + lentils		Pork kidney
	Sunflower seeds		

Note: Amounts are based on a usual serving size (1) from Canada's Food Guide.

Are You Getting Enough Folate?

- Circle foods in the table that you eat on a regular basis.
- Place a check mark beside foods that you like and would eat more of if they were readily available
- Do a rough calculation of the amount of folate you generally get in a day:
- From the recommended amounts above: Are your getting enough folate? Yes No
- If not, what foods could you eat more often to improve your intake of folate?



	Vegetable and Fruit Challenge!
Objectives of	To have students think about vegetables and fruit. Students are to review their
Activity	current habits, discuss why vegetables and fruit are important, and make goals to
	improve or maintain their current habits.
Teacher Background	Eating Well with Canada's Food Guide
Information	http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html
	Eating Well with Canada's Food Guide: A Resource for Educators and Communicators
	http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/index_e.html
Material Required	 "Vegetables and Fruit - What's a Serving Size?" information sheet "The Challenge" activity sheet
Instructions	1. Ask the students if they know how many servings of vegetables and fruit are needed each day. Tell them to refer to Canada's Food Guide for their age and gender. Note: Canada's Food Guide Recommends 6-8 servings of vegetables and fruit for most grade 8 students.
	2. Next, ask students what they think would equal one serving size. Review specific examples as indicated on the information sheet "Vegetables and Fruit - What's a Serving Size?" Distribute this information sheet.
	3. Poll the students to see who consumes their recommended servings per day. Note: if completed already, students may use their recorded breakfasts from the previous activity "How Does Your Food Intake Rate?"
	4. Discuss with the students why it is important to eat vegetables and fruit. (Provide many vitamins and minerals; provide fibre; are good for preventing cancer and heart disease; etc.)
	5. In small groups, have students brainstorm ideas to incorporate vegetables and fruit at breakfast, lunch, supper, and snacks.
	6. Ask student groups to share their ideas with the class.
	7. Hand out the "The Challenge" activity sheet to each student.
	8. Explain the vegetable and fruit challenge to the class. Run the challenge over a specified period of time.
	9. You may want to provide incentives to those who consume adequate vegetables and fruits for the week.



Vegetables and Fruit - What's A Serving Size?

Six to eight vegetables and fruit may seem like a lot, but not when you know what counts as one serving.

One serving is:

- 1 medium sized piece of fruit or vegetable (the size of a tennis ball)
- 125 ml (1/2 cup) fresh, frozen or canned vegetables or fruit
- 125 ml (1/2 cup) of 100% fruit juice (*Should be limited to 125 ml per day)
- 250 ml (1 cup) leafy greens (salad)
- 60 ml (1/4 cup) dried fruit

Examples:

- A medium sized apple, banana or carrot as a snack
- A large scoop of peas with your dinner or a small bowl of sliced peaches for dessert
- A small glass of orange juice with your breakfast
- A small side salad with your dinner
- A small box of raisins with your lunch

Please refer to the Healthy U website for a printable handout for serving sizes: http://www.healthyalberta.com/Documents/HEAL FoodServing 13to18.pdf

Tip: To meet your veggie and fruit recommendation, make it a habit to include one or more servings of vegetables or fruit at each meal and snack.



The Challenge - activity sheet

Use this chart to keep track of how many servings of vegetables and fruit you eat at each meal or snack.

Just a reminder:

One serving is equal to 1 medium size vegetable or fruit; 125 ml (1/2 cup) fresh, frozen or canned vegetables or fruit; 125 ml (1/2 cup) 100%juice; 250mL (1 cup) leafy greens (salad); 50 ml (1/4 cup) dried fruit.

Breakfast Ideas

- Glass of juice
- Half a grapefruit
- Cup of fruit
- Fruit on cereal
- Fruit shake

Lunch Ideas

- Salad
- Soup
- Fruit plate
- Carrots sticks
- Veggies in sandwich

Dinner Ideas

- Veggie side dish
- Stir-fry
- Veggie pizza
- Pasta with veggies
- Fruit for dessert

Snack Ideas

- Piece of fruit
- Dried fruit
- Canned fruit cup
- 100% Juice box
- Veggies and dip

	Breakfast	Snack	Lunch	Snack	Dinner	Snack	Daily Total
Monday		+	+	+	+	+	=
Tuesday		+	+	+	+	+	=
Wednesday		+	+	+	+	+	=
Thursday		+	+	+	+	+	=
Friday		+	+	+	+	+	=
Saturday		+	+	+	+	+	=
Sunday		+	+	+	+	+	=
Daily Avera	ige:						



Osteoporosis Risk Assessment	
Objectives of Activity	To have students identify risk factors of osteoporosis in their lives. In addition to identifying personal risk factors, they also separate the risk factors that can be reduced from others that are not changeable. This will encourage students to connect with the information being discussed in lecture.
Teacher Background Information	Osteoporosis Canada http://www.osteoporosis.ca
Material Required	"Risk Assessment" activity sheet
Instructions	 Note: This is a personal assignment that does not require sharing with the rest of the class. Hand out the "Risk Assessment" activity sheet to each student. Have the students complete the activity sheet on their own. As a class, discuss the following questions and ideas: Discuss what Osteoporosis is. Who are the target populations for this disease? What are some preventative measures regarding lifestyle that can be adopted? Why is it important to adopt these measures during adolescence?



Risk Assessment

Are you at risk for Osteoporosis?

Many risk factors that contribute to osteoporosis have been identified. Circle the ones that discuss a risk that can be reduced through lifestyle changes. Answer these questions to assess your risk of developing this bone disease.

than 3
ts? Iilk
vitamin
e you



Calcium Calculating Assignment	
Objectives of Activity	To have students analyze their calcium intake
Teacher Background Information	Information on Calcium- Linus Pauling Institute http://lpi.oregonstate.edu/infocenter/minerals/calcium/ A Consumers Guide to Dietary Reference Intakes (Health Canada) http://www.hc-sc.gc.ca/fn-an/nutrition/reference/cons_info-guide_cons-eng.php
Material Required	 "Calcium Counts" activity sheet "Calcium Content of Some Common Foods" handout
Instructions	1. Have students perform a 24-hour food recall using the first column on the "Calcium Counts" activity sheet. Note: if completed already, students may use their recorded breakfasts from the previous activity "How Does Your Food Intake Rate?"
	2. While using the "Calcium Content of Some Common Foods" handout, have students calculate their calcium intake and write into second column of activity sheet.
	3. Have students compare their intake with the recommended amounts. Note: The recommended daily calcium intake is provided on the bottom left corner of the handout.
	4. Discuss why our bodies need calcium (not just for bone health but also for muscles and heart) and consequences of not getting enough calcium.



Calcium Counts

Write down everything you eat and the serving sizes in the first column. Then write down the calcium content of each food in the second column.

Food record	Calcium Content
Breakfast	
C1-	
Snack	
Lunch	
0 1	
Snack	
Supper	
C1-	
Snack	
Total mg of Calcium:	



Calcium Content of Some Common Foods

	Portion	Calcium
Milk and Alternatives		
Cheese - Cheddar	50 g (1 ½ oz)	353 mg
Milk - whole, 2%, 1%, skim	250 mL (1 cup)	315 mg
Cheese - Mozzarella	50 g (1 ½ oz)	269 mg
Yogurt - plain	175 g (3/4 cup)	319 mg
Milk - powder, dry	45 ml (3 Tbsp)	159 mg
Ice cream	125 mL (½ cup)	93 mg
Cheese - cottage, creamed, 2%, 1%	125 mL (½ cup)	87 mg
Meat and Alternatives		
Salmon, with bones - canned	½ a 213 g can	242 mg
Almonds	125 mL (½ cup)	200 mg
Sesame seeds	125 mL (½ cup)	100 mg
Beans - cooked (kidney, navy, pinto, garbanzo)	250 mL (1 cup)	90 mg
Soybeans - cooked	250 mL (1 cup)	175 mg
Tofu - with calcium sulfate	125 mL (½ cup)	130 mg
Grain Products		
Bread - white and whole wheat	1 slice (35 g)	25 mg
Vegetables and Fruits		
Broccoli - raw	125 mL (½ cup)	38 mg
Orange	1 medium (180 g)	52 mg
Figs - dried	10	270 mg
Fortified Foods		
Calcium fortified soy beverage	250 mL (1 cup)	330mg

Source: The National Academy of Science, 1998. Consult your doctor or dietitian for advice.

AGE	RECOMMENDED DAILY CALCIUM INTAKE
1 - 3 years	500 mg
4 - 8 years	800 mg
9 - 18 years	1300 mg
19 - 50 years	1000 mg
50+ years	1500 mg

CALCIUM SUPPLEMENTS

- * It is recommended that you try to meet your calcium needs first through foods, especially milk products, which are the richest source of easy-to-absorb calcium.
- * If using calcium supplements, look on the label for the amount of elemental calcium, as this tells how much usable calcium is provided.
- * The most common forms of calcium supplements are calcium carbonate and calcium citrate.



Quick Thinking in the Fast Food Line		
Objectives of	To have students think of healthy food choices when eating away from home.	
Activity		
Teacher Background	Eating Well with Canada's Food Guide	
Information	http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html	
	 Alberta Nutrition Guidelines for Children and Youth http://www.healthyalberta.com/AboutHealthyU/280.htm Dietitians of Canada – Eating Out 	
	g .	
	http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Dining-Out.aspx?categoryID=16	
Material Required	"Eating Well with Canada's Food Guide"	
	"Quick Thinking in the Fast Food Line" activity sheet	
Instructions	 Have the students work in small groups, and assign them to different eating venues: Fast Food Restaurant Food Court at a mall Convenience store 	
	2. You may want to assign specific venues, and allow the students to visit the establishments. This will allow them to study the food choices available. Some establishments such as fast food chains may have nutrition information available for the public, upon request or online. Note: most fast food restaurants have their menus and nutritional information available online.	
	3. Using the activity sheet provided below, instruct students to assess the types of choices available as well as how foods may be displayed or marketed. Students will then record a typical lunch that is eaten at these venues, assess the meal, and then revise the typical meal at their venue to make it healthier by including or substituting other foods available at that location.	
	4. As a group, discuss the changes made to the meals. Ask the students if these are changes they could make, when eating away from home.	



Quick Thinking in the Fast Food Line – activity sheet

Take this form to your favorite fast food restaurant to analyze and document the menu items available.

1. Are milk and 100% vegetable or fruit juices as readily available as soft drinks?
2. Are there a variety of Meat and Alternatives available for main meal items? (e.g. beef, chicken, fish, nuts/seeds, beans)
3. Are there a variety of vegetable and fruit choices available? (e.g. fresh vegetables/fruit canned fruit, salad)
4. Are lower fat milk choices available?
5. Could you have the option of having sauces or dressings on the side?



5.	Do you think the way that foods are advertised or marketed in the restaurant could affect your food choices? For example: Are certain foods/meals displayed more prominently than others? Do cashiers encourage customers to add to their initia order (e.g. increase the portion size for only a small cost or order a combo instead o an individual item). How could these factors affect the overall nutritional value of the order?
	a) Write down a typical lunch that is ordered at this restaurant. It could be a lunch that you might usually order or a popular lunch that you see other people ordering.
b) <i>I</i>	Answer the following questions about the lunch choice that you wrote down: • Does it include all four food groups?
	 Are choices high in fat, sugar and/or salt? Does the meal provide fibre?
c) I	Iow could you order differently to make this meal healthier?



Background Information for Teachers: Body Image

What is body image?

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

What is self-esteem?

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

How do they work together?

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

Impacts on body image:

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

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

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

Parents: Parents and guardians are in an important position when it comes to self-esteem and body image of their children. During adolescence, children are unsure of themselves and look for guidance and positive reinforcement from parents and other role models. Parents can have an influence either directly or indirectly. Direct influence is what a parent says to the child. Children take what their parents say very seriously; therefore, it is very important that they get positive and accurate messages from them. Some examples of positive messages that parents can give their children are commenting on a great soccer game or pinning up a good mark on the refrigerator. Indirect influence is how a parent feels about themselves and their attitude on body image, which



can reflect on the attitude of their children. Parents who have a positive body image will usually pass those signals on to their children.

Peers: Peers and friends are another important group that adolescents look to for guidance. During puberty, adolescents are experiencing many changes to their body. This is when differences in physical appearance among peers becomes more apparent. These changes may drive some to struggle with their natural body shape. How others react and talk about an individual can greatly influence how that person feels about himself or herself. It is important to encourage students to help boost self-esteem of their peers by positive reinforcement rather than lowering it through negative comments.

Media: Media is also a strong influence on adolescent behaviour. Constant advertisements of young, thin, and muscular models give the impression that all people should look like them. This is an unrealistic goal for many teenagers because their body shapes are changing and are not genetically made the same way. When they cannot form their body into the "ideal" shape they may feel badly about their image and this could lead to a negative body image and low self-esteem. Also, there are many dieting advertisements on television and in magazines that can make it seem normal and necessary to be on a diet. Dieting can have damaging results on the health of the adolescent.

What are the health risks of trying to alter natural body size/shape to meet media ideal?

The media often gives an **unrealistic impression** that all people should fit into one body shape mould. The truth is the models may not even fit into this "ideal mould" because they are often airbrushed and altered to make the "perfect image". Sometimes the person in the advertisement is not even a real person, rather a computer-generated model! This media message is harmful to how individuals view themselves and may cause them to adopt unhealthy eating and exercise habits as they strive to fit the mould.

Promote a positive body image

It is important to be critical of the media. Unrealistic and unhealthy images must be identified. Encourage students to **evaluate** what they see in **the media**; this will get them thinking about what is wrong with the images rather than wishing to mimic them.

Promote a **healthy lifestyle** rather than worrying about body shape or weight. It is important to remember that being skinny does not equal being healthy. In truth being too thin can be very unhealthy and result in long term health problems. Every body shape can be healthy if a combination of healthy eating and regular physical activity is maintained.

Help out others by telling them when they have done a good job. Highlight attributes that students have other than physical appearance. Work on developing a positive self-esteem as a foundation for a realistic and positive body image.

Media and Body Image

Media stereotypes are inevitable, especially in the advertising, entertainment and news industries, which need as wide an audience as possible to quickly understand information. Stereotypes act like codes that give audiences a quick, common understanding of a person or group of people—usually relating to their class, ethnicity or race, gender, sexual orientation, social role or occupation.



But stereotypes can be problematic. They can:

- reduce a wide range of differences in people to simplistic categorizations
- transform assumptions about particular groups of people into "realities"
- be used to justify the position of those in power
- perpetuate social prejudice and inequality

Media can also be used to portray unrealistic body image and lifestyle choices, especially for teens and young adults.

The following is information from the Media Awareness Network: www.media-awareness.ca

1. Females and Body Image:

- a. Perhaps most disturbing is the fact that media images of female beauty are unattainable for all but a very small number of women. Researchers generating a computer model of a woman with Barbie-doll proportions, for example, found that her back would be too weak to support the weight of her upper body, and her body would be too narrow to contain more than half a liver and a few centimeters of bowel. A real woman built that way would suffer from chronic diarrhea and eventually die from malnutrition.
- b. Researchers report that women's magazines have ten and one-half times more advertisements and articles promoting weight loss than men's magazines do, and over three-quarters of the covers of women's magazines include at least one message about how to change a woman's appearance—by diet, exercise or cosmetic surgery.
- c. The barrage of messages about thinness, dieting and beauty tells women that they are always in need of adjustment—and that the female body is an object to be perfected.

2. Males and Body Image:

- a. Families, friends, teachers, and community leaders all play a role in helping boys define what it means to be a man. Mainstream media representations also play a role in reinforcing ideas about what it means to be a "real" man in our society. In most media portrayals, male characters are rewarded for self-control and the control of others, aggression and violence, financial independence, and physical desirability.
- b. The portrayal and acceptance of men by the media as socially powerful and physically violent serve to reinforce assumptions about how men and boys should act in society, how they should treat each other, as well as how they should treat women and children.



Student Activities: Body Image

Body Image Through the Ages		
Objectives of	To have students discover that the definition of beauty is not static and has	
Activity	changed throughout the ages.	
Teacher Background	Media and Children and Teens (American Academy of Pediatrics)	
Information	http://www.aap.org/advocacy/mediamatters.htm	
	Media Awareness Network	
	http://www.media-awareness.ca	
	Dietitians of Canada – Positive Body Image	
	http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Body-	
	Image.aspx?categoryID=5	
Material Required	A collection of history books, art books and magazines	
Instructions	1. Have the students look at pictures of people from different historical periods by looking at history books or works of art. Help them pick out features that made people attractive at that time, such as red hair, a full beard, tiny feet, or a full round body size (e.g. Rubens' subjects). Discuss with students the features that were considered beautiful in the past, and were desirable standards of beauty.	
	2. Have students look at modern magazines to see if they can find the same attributes (i.e. tiny feet, large body size, etc.).	
	 Class Discussion: How do you think people in the past felt if they did not fit the beauty ideal? Has this changed? What characteristics do present day models seem to have? Are there different standards of beauty for males and females? Are these standards realistic? How has today's technology made some media images even more unrealistic? What can we do as a society to demand more realistic images in the media? 	
	4. Ask students to imagine about what might be considered beautiful in the year 2050. Have them make drawings of what a beautiful person in the year 2050 will look like.	



Why I Like Me	
Objectives of	To have students think about positive personal attributes and increase their self
Activity	esteem.
Teacher Background	N/A
Information	
Material Required	Construction paper
	Magazines
	Pencil crayons, markers
	Glue, scissors
Instructions	1. Ask students to make a collage of pictures and words that describe personal characteristics which make them proud.
	2. Encourage the students to focus on attributes other than physical appearances.
	3. These collages can be posted in the classroom for reinforcement of positive self-esteem and body image.



Student Activities: Other Health Topics

Media Madness	
Objectives of Activity	To have students make connections between nutrition and reducing the risk of certain chronic diseases.
Teacher Background Information	Media and Children and Teens (American Academy of Pediatrics) http://www.aap.org/advocacy/mediamatters.htm
	Media Awareness Network http://www.media-awareness.ca
	How to understand and interpret food and health related scientific studies – International Food Information Council http://www.foodinsight.org/linkclick.aspx?fileticket=d8IZK7B4MGY%3d&tabid=93
Material Required	 Poster making materials, OR Video camera OR A tape recorder
Instructions	1. Ask students to develop a media campaign that convinces teenagers to improve their eating habits. Use connections between nutrition and reducing risk of certain chronic diseases as part of the campaign.
	2. Have students pick a specific chronic disease. Chronic diseases that could be focused on might include heart disease, cancer, osteoporosis, diabetes, eye health, and obesity. Students are to highlight what can be done to reduce the risk of the selected chronic disease.
	3. Have students work in groups to research and prepare their media campaigns
	4. Two different versions of this activity could be completed. Either have the students prepare a television or radio campaign by writing and producing a 2-minute public service announcement, or have students develop a poster or advertising campaign.
	5. Have the rest of the class provide constructive feedback to each group as they present their media campaigns.



Need	l Health Inform	ation? Look to You	r Community
Objectives of		k out and assess health infor	
Activity			unity services and information
J	pertaining to a certain		,
Teacher	-	and interpret food and health	related scientific studies –
Background		Information Council	
Information	http://www.fooding	sight.org/linkclick.aspx?filetic	ket=d8IZK7B4MGY%3d&tabid=93
	Media Awareness 1		
	http://www.media-	awareness.ca	
Material Required	N/A		
Instructions		ents that information on the	internet is not always reliable;
'			ecommended sites. Watch out for
	conflicting ad	lvice, information based on	testimonials, miracle cures, and
	information fi	rom those trying to sell you	a product or service.
	2. Divide the cla	ass into small working group	os or have students work
	independently		55 of have students work
	macpendentry	, .	
			to research. Ask students to
	_	5 .	ber, are facing this health issue
	and they need	to seek out appropriate info	ormation and community
	support.		
	4. Ask students	to find information availabl	e within the community. Sources
			essionals, health organizations,
		*	led websites (e.g. local health
		vincial and federal health de	
			s, community health centres,
	_	nformation referral centres,	•
	. A 1 . 1	4 1: 4 1	
		to list and comment on serv	ices available within the
	community.		
	6. Have students	s report their findings back t	to the class.
	Possible Health Issu		A IIDG
	Brain Injury	Allergy to Peanuts	AIDS
	Infant Feeding	Heart Health	Cancer
	Stroke	Diabetes	Alzheimer's
	Suicide	Epilepsy Esting Disorders	Osteoporosis
	Blindness	Eating Disorders	Fetal Alcohol Syndrome
	Addictions	Emphysema	Food Poisoning
	Addictions	STI's	Tobacco Montal Hoolth Issues
	Poverty	Autism	Mental Health Issues



	Making Time for Balance
Objectives of Activity	This activity introduces the concepts of various aspects of health – physical, social, and emotional. Students then evaluate an average week of their lives for balance and set personal goals.
Teacher Background Information	 Eating Well with Canada's Food Guide http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html Canadian Physical Activity Guidelines for Youth
	http://www.csep.ca/CMFiles/Guidelines/CSEP-InfoSheets-youth-ENG.pdf
Material Required	 "Making Time for Balance – Backgrounder Sheet" "Making Time for Balance – Brainstorming Sheet" "Making Time for Balance – Planning Sheet"
Instructions	1. Review the definitions of Emotional Health, Social Health and Physical Health with the students. Have the students use the "Making Time for Balance- Brainstorming Sheet" to brainstorm a list of activities they are currently participating in or would like to participate in relating to each of these areas of health.
	2. Next, have the students fill in the "Making Time for Balance – Planning Sheet". Students are asked to write down what they usually do at different times of the day for a week.
	3. Have the students evaluate if they are participating in varied health related activities throughout the week. Provide the students with "Canada's Food Guide", the Canadian Physical Activity Guidelines for Youth" and the "Making Time for Balance-Backgrounder Sheet" to evaluate and make changes to their plans.
	4. Have the students write three things they can change in their life to achieve a healthy balance at the bottom of the planning sheet.



Making Time for Balance

Backgrounder Sheet

The name of the game is **Making Time for Balance** in your life. Life can get busy with school, friends, sports and families. It is important to find a balance between the things that you have to do, the things you like to do and the things that keep you healthy and feeling good.

To help achieve a healthy balance in your life, activities are divided into 3 categories:

- **Emotional Health:** Involves increasing your ability to interact with others, promoting well-being, and increasing feelings of control over your life.
 - **Examples of activities to improve emotional health** include: relaxation activities, reading a book for enjoyment, drawing or painting, listening to music you like, budgeting, goal setting, cleaning your room, doing your homework on time, writing in a journal, participating in learning opportunities or working on a favorite hobby.
- **Social Health:** Involves the use and development of interpersonal and interaction skills.
 - **Example of activities to improve social health** include: going to club meetings, spending time with family and friends, volunteering, writing a letter to someone or playing team sports.
- **Physical Health:** Involves improving or maintaining the health of our bodies and increasing the ability to do things we enjoy.
 - **Examples of activities to improve physical health** include: participating in a physical activity, drinking 2 L (8 cups) of water in a day, eating healthy, eating at least 7 servings of vegetables and fruits in a day, eating breakfast everyday, brushing your teeth 3 times per day plus flossing once a day or sleeping at least 8 hours/night.

Your Mission Is:

- ✓ Brainstorm activities that you are currently doing or would like to try from each of the categories listed above!
- ✓ Plan a week where you will include activities from each category each day!
- ✓ Finally, test it to see if it works for you!



Making Time for Balance Brainstorming Sheet

What I do to improve my Emotional Health (things I do that mafeel good):	ake me
What I do to improve my Social Health (what I do with family a friends):	and
What I do to improve my Physical Health (things I do to take cabody):	are of my



Making Time for Balance - Planning Sheet
Record the social, emotional and physical activities that you usually do each day.

						ò		
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Before School								
Morning Classes								
Lunch Break								
Afternoon Classes								
After School								
Supper Time								
After Supper								
		Three things I		ny life to achieve	can change in my life to achieve a healthy balance			

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