

Adventures in learning, created
by Canadian dietitians



Students explore how healthy eating and physical activity impacts body systems and the function of the digestive system.

Learning Expectations:

1. Examine how nutrition and physical activity impact body systems like the digestive system, skeletal system, circulatory system, respiratory system and immune system.
2. Identify the parts of the digestive system and how they function to digest food.

Subject Links:

Health, Science, Information Technology, Art

Materials & Resources:

- ★ Books on the human body. Suggested books:
Human Body, Grades 4-6 Fun Activities, Experiments, Investigations, And Observations! by Sue Carothers and Elizabeth Henke and *Head to Toe Science: Over 40 Eye Popping Spine-Tingling, Heart Pounding Activities That Teach Kids About the Human Body* by Jim Wiese
- ★ Web sites and movies on the human body.
Suggested web site:
www.kidshealth.org and
www.kidshealth.org/kid/closet/movies/how_the_body_works_interim.html

See the Teacher Notes at the back of this resource (on pages 23-26) for more information on this mission.

Class Discussion:

Eating well and being active promotes healthy body systems. The following questions help students explore how our bodies make use of food; that fibre, water and regular physical activity help keep food moving through the digestive system smoothly; and that a variety of foods provide nutrients needed by different body systems:

- ★ What is digestion? (See definition in the *Teaching Tip* below.)
- ★ What 3 things help food move through the digestive system smoothly?
- ★ Why is it important to eat a variety of foods from all four food groups?

Teaching Tip:

The word digestion comes from a word that means to divide. It is the breaking down of food into smaller particles and eventually nutrients that can be absorbed and used by the body. Although humans cannot digest fibre, it is important for good health. Like a broom, fibre helps to sweep any leftover food waste out of our body. Students can time how long it takes for food to travel through their digestive system when

MISSION NUTRITION*
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

MISSION NUTRITION* is brought to you by the
Registered Dietitians at Kellogg Canada Inc.
MISSION NUTRITION* materials may be duplicated in
whole without permission for educational purposes only.
* © 2007, Trademark of Kellogg Company used under licence by
Kellogg Canada Inc.

MISSION PLANS FOR GRADES 4-5
MISSION 4
EXPLORING BODY SYSTEMS



Continued

Adventures in learning, created
by Canadian dietitians

they eat corn. The fibre in corn cannot be digested, so it will pass right through the digestive tract and come out the other end! They can expect it to take about 24 hours.

Activities:

1. Students know that food goes in one end and the unusable parts come out the other end. Ask students what they think happens in between. Then allow time in the library and computer lab for students to research how the digestive system works to make use of the food we eat. Have them complete the *Where does your food go?* activity sheet (see *Student Mission 4*) to record what they learn.
2. The *MISSION NUTRITION** Team wants to know how the food we eat affects the human body. Use the *MISSION NUTRITION** poster to review how key essential nutrients impact major body systems. Divide the class into groups and assign a different body system to each group including the skeletal system, central nervous system, circulatory system, respiratory system and digestive system. Ask students to work together in their groups to research information on that system using the Internet and library books. Have each group develop a slogan and design a poster that shows how eating well, drinking plenty of fluids and being active helps keep the body systems in good working order. Each group can present their poster and then display it in the classroom.

Student Mission 4:

Where Does Your Food Go? On the *Where Does Your Food Go?* activity sheet, students explore the journey that food takes through the digestive system. Have students research each part of the digestive system to learn how the body makes use of the food we eat.

Home Connection:

Fibre rich foods are important for healthy eating. Exploring fibre choices at home helps students and parents identify whether fibre rich foods are readily available.

In Class: Create a list with the class of fibre rich foods - these include grain products like high fibre breads and cereals and some whole grain products, fruit, vegetables, nuts, dried peas, beans and lentils. Note that fibre is found only in plant foods. See *Materials and Resources* for more information on fibre.

At Home: Send students on a "fibre find" search with a copy of the list you created in class. Their Mission is to make their own list of foods they can find with fibre at home, at the school cafeteria or at their local food store. Ask them to check the nutrition information on the labels found on packaged products and record the amount of fibre in a serving if it is listed.

In Class: In small groups, students can discuss the types of foods they found on their "fibre find" search. Then ask each student to think of three ways to add more fibre to their daily eating patterns. (For example: choose more fresh or dried fruits, eat whole grain and high fibre cereals for breakfast, make sandwiches with whole grain breads, add a vegetable to dinner meals, make a trail mix with cereal, seeds and nuts, or cook up some chilli with beans.)



MISSION NUTRITION*
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

MISSION NUTRITION* is brought to you by the Registered Dietitians at Kellogg Canada Inc.
MISSION NUTRITION* materials may be duplicated in whole without permission for educational purposes only.
* © 2007, Trademark of Kellogg Company used under licence by Kellogg Canada Inc.

www.missionnutrition.ca

Kellogg's



PAGE
12

Students explore their own food choices by recording and comparing their food selections to Canada's Food Guide.

Adventures in learning, created
by Canadian dietitians



Learning Expectations:

1. Analyse their own food selections over a period of time, and compare personal habits with *Canada's Food Guide*.
2. Classify foods into food groups in *Canada's Food Guide*.
3. Demonstrate an understanding of food groups, serving sizes and serving numbers that support good health.

Subject Links:

Health, Language, Math, Information Technology

Materials & Resources:

☆ *Canada's Food Guide*.

Visit www.healthcanada.gc.ca/foodguide or call 1-8000 CANADA for copies.

See the Teacher Notes at the back of this resource (on pages 23-26) for more information on this mission.

Class Discussion:

The *MISSION NUTRITION*^{*} Team wants to know about food choices that make for healthy eating. Healthy eating patterns can vary according to individual preferences and needs. *Canada's Food Guide* can accommodate cultural preferences, vegetarian eating, food allergies and medically imposed special diets. Review and discuss with students the key messages from *Canada's Food Guide* as outlined in the *Teacher Notes* including:

MISSION NUTRITION^{*}
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

- ☆ The Food Guide Servings recommended for each food group.
- ☆ How to make each Food Guide Serving count
- ☆ Examples of Food Guide Serving sizes.
- ☆ Limiting less healthy food choices that are higher in calories, fat, sugar and salt (sodium).
- ☆ The importance of water and fluids for hydration.

Teaching Tip:

Part of healthy eating involves being able to visualise a serving of food and understand how this relates to the number of Food Guide Servings recommended by *Canada's Food Guide*. The Food Guide provides examples of serving sizes for each food group.

Activities:

1. Provide students with a copy of the *My Food Choices* activity sheet (see *Student Mission 4*) to keep track of what they eat for a whole day. This is easier to do if students record their food intake throughout the day, as they eat, rather than trying to remember what they ate later in the day. Note that this Activity Sheet shows the recommended number of Food Guide Servings for girls and boys ages 9 to 13 years. Ask them to list everything they eat and drink for one whole day including all meals and snacks. Have them note the amounts of the foods and drinks they consume using common measures such as 1 bowl of cereal, 1/2 banana, 1 glass of milk. Note that chocolate milk counts as milk, but most fruit drinks, punches or beverages are not part of the four food groups.
2. Once students have completed their daily food record on their *My Food Choices* activity sheets,

MISSION NUTRITION^{*} is brought to you by the Registered Dietitians at Kellogg Canada Inc. *MISSION NUTRITION*^{*} materials may be duplicated in whole without permission for educational purposes only.
* © 2007. Trademark of Kellogg Company used under licence by Kellogg Canada Inc.

MISSION PLANS FOR GRADES 4-5
MISSION 5
EXPLORING FOOD CHOICES

Continued



Adventures in learning, created
by Canadian dietitians

have them compare their choices to *Canada's Food Guide*. First have students tally up the number of servings they ate from each food group using the serving size examples in *Canada's Food Guide*. Next allow computer lab time for students to explore *Canada's Food Guide* and create and print out their own personalized Food Guide using the My Food Guide feature at www.healthcanada.gc.ca/foodguide online. Then ask them to note if the number of servings they ate from each food group was in line with the number of servings recommended for their age and gender by the Food Guide.

3. Based on their nutrition analysis, ask each student to set a personal healthy eating goal and record an action plan to achieve this goal. Note that students should not be required to share their personal results with other students and should not be judged based on what they recorded. Sensitivity to factors that may affect food choices such as allergies, family income, culture, religion or medical conditions are important to keep in mind when assessing this activity. Students should be assessed on how well they completed their tally and the goal and action plan that they developed based on their personal analysis. They should not be assessed on their daily food intake.

Student Mission 5: My Food Choices

The *My Food Choices* activity sheet provides a framework for students to analyze what they eat over the course of a day. Ask them to record everything they eat and drink, and then tally up their choices from each food group.

Home Connection:

A healthy eating questionnaire is an interactive way for students to assess family eating habits

MISSION NUTRITION®
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

while sharing their healthy eating knowledge with family members. Sensitivity to factors outlined in *Activity 3* is important in conducting this survey.

In Class: Develop a questionnaire with students for them to use at home to survey family eating habits. Students can share their healthy eating knowledge about the four food groups and recommended Food Guide Servings with their families to help them answer the questions. Some sample survey questions follow. In a day,

- ★ How many food groups do you include in breakfast?
(0, 1, 2, 3 or 4)
- ★ How many food groups do you include in lunch?
(0, 1, 2, 3 or 4)
- ★ How many food groups do you include in dinner?
(0, 1, 2, 3 or 4)
- ★ Do you drink fluids such as water, milk and juice each day?
- ★ Do you snack mostly on nutritious foods from the four food groups?
- ★ Do you limit foods that are higher in calories, fat, sugar and salt?

Provide each student with a copy of the survey questions and a template to tally their results from the survey. For example, the template could list questions down the left column on a page and the numbers of food groups across the top.

At Home: Have students use the questionnaire to survey members of their family.

In Class: Tally the survey results as a class on chart paper, using headings such as food groups eaten at breakfast, lunch, dinner and snacks. Students can then work in groups to create graphs that show survey results for various family eating habits.

www.missionnutrition.ca

MISSION NUTRITION® is brought to you by the Registered Dietitians at Kellogg Canada Inc.
MISSION NUTRITION® materials may be duplicated in whole without permission for educational purposes only.
* © 2007, Trademark of Kellogg Company used under licence by Kellogg Canada Inc.

Students explore their own food choices by recording and comparing their food selections to Canada's Food Guide.

Adventures in learning, created
by Canadian dietitians



Learning Expectations:

1. Analyse their own food selections over a period of time, and compare personal habits with *Canada's Food Guide*.
2. Classify foods into food groups in *Canada's Food Guide*.
3. Demonstrate an understanding of food groups, serving sizes and serving numbers that support good health.

Subject Links:

Health, Language, Math, Information Technology

Materials & Resources:

☆ *Canada's Food Guide*.

Visit www.healthcanada.gc.ca/foodguide or call 1-8000 CANADA for copies.

See the Teacher Notes at the back of this resource (on pages 23-26) for more information on this mission.

Class Discussion:

The *MISSION NUTRITION** Team wants to know about food choices that make for healthy eating. Healthy eating patterns can vary according to individual preferences and needs. *Canada's Food Guide* can accommodate cultural preferences, vegetarian eating, food allergies and medically imposed special diets. Review and discuss with students the key messages from *Canada's Food Guide* as outlined in the *Teacher Notes* including:

- ☆ The Food Guide Servings recommended for each food group.
- ☆ How to make each Food Guide Serving count
- ☆ Examples of Food Guide Serving sizes.
- ☆ Limiting less healthy food choices that are higher in calories, fat, sugar and salt (sodium).
- ☆ The importance of water and fluids for hydration.

Teaching Tip:

Part of healthy eating involves being able to visualise a serving of food and understand how this relates to the number of Food Guide Servings recommended by *Canada's Food Guide*. The Food Guide provides examples of servings sizes for each food group.

Activities:

1. Provide students with a copy of the *My Food Choices* activity sheet (see *Student Mission 4*) to keep track of what they eat for a whole day. This is easier to do if students record their food intake throughout the day, as they eat, rather than trying to remember what they ate later in the day. Note that this Activity Sheet shows the recommended number of Food Guide Servings for girls and boys ages 9 to 13 years. Ask them to list everything they eat and drink for one whole day including all meals and snacks. Have them note the amounts of the foods and drinks they consume using common measures such as 1 bowl of cereal, 1/2 banana, 1 glass of milk. Note that chocolate milk counts as milk, but most fruit drinks, punches or beverages are not part of the four food groups.
2. Once students have completed their daily food record on their *My Food Choices* activity sheets,

*MISSION NUTRITION**
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

*MISSION NUTRITION** is brought to
you by the Registered Dietitians at Kellogg Canada Inc.
*MISSION NUTRITION** materials may be duplicated in whole
without permission for educational purposes only.

* © 2007. Trademark of Kellogg Company used under licence by
Kellogg Canada Inc.

MISSION PLANS FOR GRADES 4-5
MISSION 5
EXPLORING FOOD CHOICES

Continued



Adventures in learning, created
by Canadian dietitians

have them compare their choices to *Canada's Food Guide*. First have students tally up the number of servings they ate from each food group using the serving size examples in *Canada's Food Guide*. Next allow computer lab time for students to explore *Canada's Food Guide* and create and print out their own personalized Food Guide using the My Food Guide feature at www.healthcanada.gc.ca/foodguide online. Then ask them to note if the number of servings they ate from each food group was in line with the number of servings recommended for their age and gender by the Food Guide.

3. Based on their nutrition analysis, ask each student to set a personal healthy eating goal and record an action plan to achieve this goal. Note that students should not be required to share their personal results with other students and should not be judged based on what they recorded. Sensitivity to factors that may affect food choices such as allergies, family income, culture, religion or medical conditions are important to keep in mind when assessing this activity. Students should be assessed on how well they completed their tally and the goal and action plan that they developed based on their personal analysis. They should not be assessed on their daily food intake.

Student Mission 5: My Food Choices

The *My Food Choices* activity sheet provides a framework for students to analyze what they eat over the course of a day. Ask them to record everything they eat and drink, and then tally up their choices from each food group.

Home Connection:

A healthy eating questionnaire is an interactive way for students to assess family eating habits

MISSION NUTRITION®
resources for
Kindergarten to
Grade 8 are available in
English and French at
www.missionnutrition.ca
or by calling
1-888-876-3750

while sharing their healthy eating knowledge with family members. Sensitivity to factors outlined in *Activity 3* is important in conducting this survey.

In Class: Develop a questionnaire with students for them to use at home to survey family eating habits. Students can share their healthy eating knowledge about the four food groups and recommended Food Guide Servings with their families to help them answer the questions. Some sample survey questions follow. In a day,

- ☆ How many food groups do you include in breakfast?
(0, 1, 2, 3 or 4)
- ☆ How many food groups do you include in lunch?
(0, 1, 2, 3 or 4)
- ☆ How many food groups do you include in dinner?
(0, 1, 2, 3 or 4)
- ☆ Do you drink fluids such as water, milk and juice each day?
- ☆ Do you snack mostly on nutritious foods from the four food groups?
- ☆ Do you limit foods that are higher in calories, fat, sugar and salt?

Provide each student with a copy of the survey questions and a template to tally their results from the survey. For example, the template could list questions down the left column on a page and the numbers of food groups across the top.

At Home: Have students use the questionnaire to survey members of their family.

In Class: Tally the survey results as a class on chart paper, using headings such as food groups eaten at breakfast, lunch, dinner and snacks. Students can then work in groups to create graphs that show survey results for various family eating habits.

www.missionnutrition.ca

MISSION NUTRITION® is brought to you by the Registered Dietitians at Kellogg Canada Inc.
MISSION NUTRITION® materials may be duplicated in whole without permission for educational purposes only.
* © 2007, Trademark of Kellogg Company used under licence by Kellogg Canada Inc.

Kellogg's

