



FROM THE
GROUND UP

Yukon Healthy
Choice Fundraiser

DU CHAMP
À LA TABLE

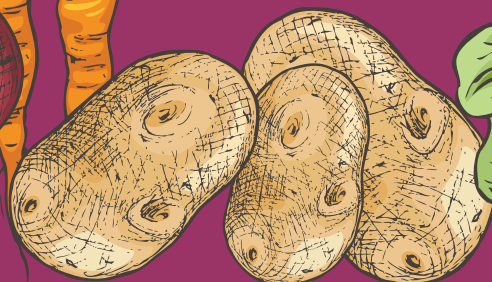
Collecte de fonds
– Choix santé

 CANADIAN
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yukonfromthegroundup.ca

 Yukon

CLASSROOM ACTIVITIES GRADES K-7



WELCOME YUKON TEACHERS!

Want to connect From the Ground Up healthy choice fundraiser to classroom learning? Want ideas and activities for your class? Then this manual is for you! It was designed to be used in your classroom to enhance the learning opportunities related to food, healthy eating and Yukon agriculture by providing background information and activity ideas for students in Kindergarten to Grade seven.

In addition to From the Ground Up being a healthy choice fundraiser for your school, we are confident From the Ground Up can be tied to many interesting discussions and learning opportunities such as:

- Healthy food choices
- Eating Well with Canada's Food Guide and the four food groups
- Food production in Yukon
- The importance of vegetables as part of a healthy diet

Our goal is to make the healthy choice the easy choice for all Yukon students.

An electronic copy of the Classroom Activities manual is also available on the From the Ground Up website: yukonfromthegroundup.ca

For any questions or feedback please contact:

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HOW DID THE FARMER FIX HIS JEANS?

WITH A

**CABBAGE
PATCH!**





GRADES K + 1

LESSON 1

Fuel up! Healthy food for healthy bodies

LESSON 2

Fill your plate

LESSON 3

Vegetable crown



GRADES K+1

LESSON 1



FUEL UP!

HEALTHY FOOD FOR HEALTHY BODIES

LESSON OVERVIEW

Students will discuss the importance of food in the maintenance of a healthy body.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to health, including healthy eating, regular physical activity, emotional healthy practices and disease prevention practices.

MATERIALS REQUIRED

- Chart paper
- Markers
- Superkid Poem (see next page)
- "I'm A Superkid!" big book template (included)



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PREPARING TO TEACH:

1. Print the poem/song "To Be A Superkid" on chart paper.
2. Display the chart paper where it can be easily seen by all students (e.g., chart stand, whiteboard, bulletin board).
3. Optional – Photocopy the poem/song (one per student). Send the poem home with each student. This will be an excellent way to build a home-school connection, as well as get the students excited about their "healthy eating" unit.
4. Optional – Photocopy the template, "I'm a Superkid!" for the big class book (see extension activity).

TEACHING THE LESSON

Begin by having the students sit in a large group. Tell the students that you had an awful problem on the way to school this morning. You got in your car, put your seatbelt on, turned the key and your car wouldn't start!

Ask: Why do you think my car wouldn't start?

(you were out of gas)

Explain to the students that you looked at the gas gauge and it was on "E" for empty!!

Ask: If a car doesn't have any gas, what happens? Where do we get gas from?

Reinforce that in order for a car's engine to start, it must have fuel in its tank! Now, say to the students, "I want you to think of your body as a car".

Ask: What type of car would you like to be?

Give the students a couple of moments to share what type of car they would like to be, and then ask:

- **If you want to be able to start your engine and drive your car, what must your car have?**

(gas/fuel – Just like cars, our bodies need fuel for energy)

- **Where does our body get fuel? Can we go to the gas station and fill up our bodies?**

Fuel for our bodies comes from the food we eat.

That's why it is so important to put the right fuel into our bodies.

Have the students gather around the chart paper and introduce the Poem/Song "To Be A Superkid" (to the tune "If You're Happy and You Know It"). Ask the students to listen to you carefully as you sing the poem. Then, have the students be your "echo". After you sing each line of the song, have the students repeat the line after you. Finally, sing the entire song together.

FOLLOW-UP ACTIVITY

Create an Anchor Chart and, as a class brainstorm activity, create a list of "good" fuel items for our bodies (e.g., carrots, apples, whole wheat bread, cheese, chicken, etc.). Record these items on the Anchor Chart and post the list in the classroom for everyone to see.

EXTENDING THE LESSON

Create a "Big Class Book" called I'm a Superkid! Have each student complete one page (template included), by completing the sentence at the bottom of the page and illustrating two or three food items that he/she eats to make him/her a "Superkid". Place the completed pages inside a clear pocket protector. Then, place all the pages in a binder and title the binder, "I'm A Superkid!". Send the book home with a different student each night to share with their families. You may wish to tape a piece of paper to the back of the binder titled, "Comments". After sharing the class book, family members can write a comment about the book.

"TO BE A SUPERKID"

Sung to the tune

"IF YOU'RE HAPPY AND YOU KNOW IT!"



To be a Superkid we need fuel
To be a Superkid we need fuel
Eating fruits and veggie treats
Say goodbye to sugary sweets
To be a Superkid we need fuel

To be a Superkid we need fuel
To be a Superkid we need fuel
Eating grains, and milk and meat
You are what you eat
To be a Superkid we need fuel

FUEL UP!

NAME

I AM A
SUPERKID
BECAUSE:

GRADES K+1

LESSON 2

FILL YOUR PLATE

LESSON OVERVIEW

Students will think about how much of each food group they should eat by working with the concept of “half your plate”. While the concepts of “serving” and “serving size” are likely too abstract for most Grade K & 1 learners, a visual diagram of a plate divided into sections will be easier for them to understand. The concepts of “servings” and “half” will be used.

PRESCRIBED LEARNING OUTCOMES: HEALTH

CI. Identify practices that contribute to health, including healthy eating, regular physical activity, and emotional health practices

MATERIALS REQUIRED

- Food picture cards (provided)
- Tape
- Hula hoop
- String
- Canada’s Food Guide (provided)
- Half Your Plate worksheet (provided)
- Half Your Plate Fruits & Veggies (provided)
- Scissors
- Glue

BACKGROUND INFORMATION

It is important to remember that foods and meals should not be labeled as good and bad. All foods fit to make an overall healthy eating pattern.

Everyday foods can be enjoyed most of the time. Examples of everyday foods include carrots, apples, bananas, whole wheat bread, milk, chicken, etc. These foods give us the vitamins, minerals and other nutrients we need.

When we choose everyday foods we will:

- Feel and look better
- Have better overall health
- Have more energy
- Have stronger muscles and bones
- Grow and learn

Sometimes foods can be enjoyed some of the time but are not everyday foods:

- Cakes and cookies
- Chocolate and candy
- Granola bars
- Donuts
- Ice cream
- French fries
- Potato chips
- Pop



Sometimes foods should not be considered part of a food group. For example, even though potato chips are made from potatoes, we would not consider deep fried potato chips part of the Vegetables and Fruit food group. Sometimes foods can be enjoyed and are a part of healthy eating. We want to avoid eating these foods too often, or in large portions. Sometimes foods can fill us up and leave less room for healthier everyday foods.

Source: <http://www.peelregion.ca/health/shp/nutrition-campaign/pdf/everyday-foods-and-sometimes-foods-1008.pdf>

PREPARING TO TEACH

- Tape food picture cards to the wall or chalkboard. Include more fruits and vegetables than other foods.
- Distribute Half Your Plate worksheet

TEACHING THE LESSON

Review what students know about the four food groups. Discuss Everyday Foods and Sometimes Foods. Draw four circles on the board—one for each food group. Ask students to help you label them. Show the number of servings for each food group (based on students' age).

Ask students to help you place the food items in the appropriate category. Select a food card and ask the students to identify the food group.

Ask: What food group does it belong to? Is it an Everyday food or a Sometimes food?

Review the concept of "servings"—a way of telling people how much of something we should eat. Use some examples to show students what a serving is for different foods. Show students how many servings they need from each food group.

Ask: Which food group do you need the most servings from?

Say: Let's focus on Fruits and Vegetables

Ask: How many servings of fruits and vegetables do you need? What is a fruit? What is a vegetable?

The answers will vary. Students might say that fruits taste sweet and vegetables don't. Rather than focus on the right answer, have students list some characteristics of fruits and vegetables.

Ask: What do you know about fruits?

Do the same for vegetables. (A fruit is the part of the plant that develops from a flower. It's also the section of the plant that contains the seeds. The other parts of plants are considered vegetables. These include the stems, leaves and roots — and the flower bud).

Have students gather around a Hula Hoop. Talk about the meaning "half"

Ask: If the hula hoop were a plate, how could we split it in half?

Tie a string across the diameter of the hula hoop. Explain that half of what you eat should be fruits and vegetables. Have students take turns putting the Fruits and Vegetables food cards in one half of the hula hoop.

After the activity, students will go back to their desk to work on the Half Your Plate worksheet. Ask the students to cut and paste their favourite 5 fruits and vegetables to half the plate using the Half Your Plate Fruits & Veggies. They can also draw/colour their own fruits and vegetables.

EXTENDING THE LESSON

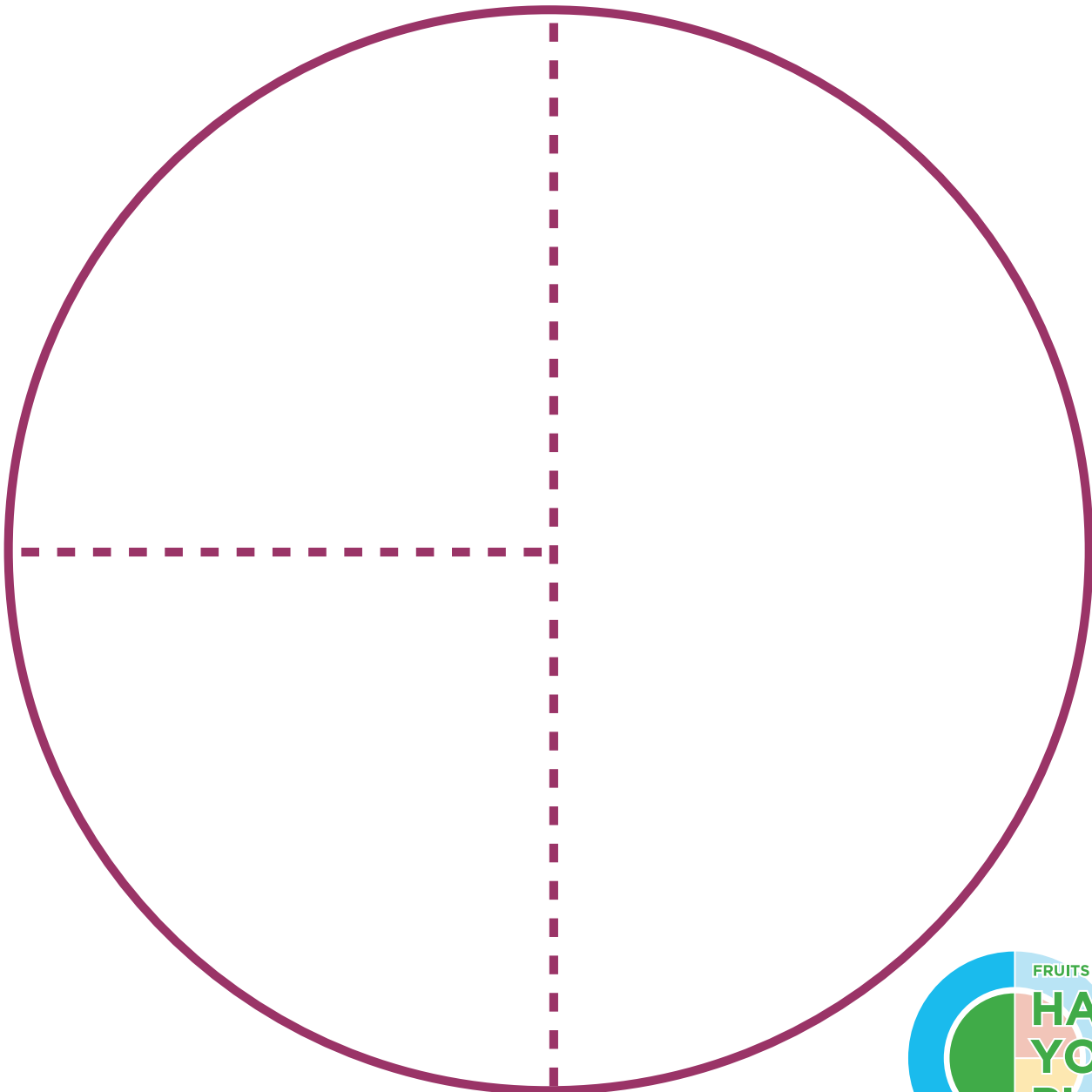
Create a large, class-size Half Your Plate poster or bulletin board. Identify the class's favourite fruits and vegetables to fill it up. Fill out the rest of the plate with the students favourite meats/alternatives and grains (be sure to include meat alternatives).

Showcase the poster in the classroom or outside of the classroom for the rest of the school to see which fruits and vegetables the students like to fill half their plate with.

HALF YOUR PLATE WORKSHEET

Name: _____

MY HEALTHY PLATE



HALF YOUR PLATE FRUITS & VEGGIES



GRADES K+1

LESSON 3

VEGETABLE CROWN

LESSON OVERVIEW

Students will be introduced to new vegetables and will learn about why vegetables are good for you. Students will have the opportunity to try different types of carrots and identify different varieties of carrots.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to health, including healthy eating, regular physical activity, and emotional health practices

MATERIALS REQUIRED

- Long, 2" strips of white paper
- Coloured construction paper to make vegetable shapes
- Glue Sticks
- Stapler
- Eating the Alphabet book (included)
- Different types of carrots (orange, white, purple, baby)
- A potato, beet, tomato, cabbage, cucumber

BACKGROUND INFORMATION

Eat The Rainbow

Blue/Purple

Blue/purple fruits and vegetables are coloured by natural plant pigments called "anthocyanins." Anthocyanins in blueberries, grapes and raisins protect our cells from damage.

Ask the students to give examples of blue/purple fruits or vegetables.

Examples: Eggplant, blueberries, blackberries, prunes, plums, pomegranates



Green

Green fruits and vegetables are coloured by natural plant pigment called “chlorophyll.”

Some members of the green group, including spinach and other dark leafy greens, green peppers, peas, cucumber and celery, contain lutein. Lutein works to help keep eyes healthy.

Ask the students to give examples of green fruits/vegetables

Examples: Broccoli, cabbage, Brussels sprouts, avocado, kiwi, spinach

Red

Red fruits and vegetables are coloured by natural plant pigments called “lycopene” or “anthocyanins.” Lycopene in tomatoes, watermelon and pink grapefruit, for example, may help reduce risk of several types of cancer. Anthocyanins in strawberries, raspberries, red grapes and other fruits and vegetables protect our cells from damage. Antioxidants are linked with keeping our hearts healthy, too.

Ask the students to give examples of red fruits/vegetables

Examples: Tomatoes and tomato products, watermelon, pink grapefruit, cranberries, beets, cherries, raspberries, strawberries

Orange/yellow

Orange/yellow fruits and vegetables are coloured by natural plant pigments called “carotenoids.” Beta-carotene in sweet potatoes, pumpkins and carrots is converted to vitamin A, which helps to keep our eyes healthy eyes.

Ask the students to give examples of yellow/orange fruits/vegetables

Examples: Carrots, mangos, cantaloupe, winter squash, sweet potatoes, pumpkins, apricots, pineapple

Source: <https://www.ag.ndsu.edu/pubs/yf/foods/fn595.pdf>

PREPARING TO TEACH

- Make long, 2” strips of white paper, which will be the base of the crowns.
- Cut out and prepare vegetable shapes to glue on the crowns.

TEACHING THE LESSON

- **Vegetable Exploration:** Show the students the fresh vegetables that correlate with the vegetables the kids glue to their vegetable crowns (potato, carrot, beet, tomato, cabbage, cucumber). Hold up each vegetable and ask the students to tell you its name. Have they tried the vegetable before? Ask them to guess which parts of the vegetables they can eat – e.g. carrot-just the roots, beets-the roots and the tops, cucumber and tomato-everything
- **Taste the Carrots:** Pass out pieces of different types of carrot and ask each student to try one. Ask them to describe how the carrot tastes and feels. Is it sweet or salty? Is it soft or crunchy? Ask the students if they have ever tried a white or purple carrot. Does it taste differently than an orange carrot?
- **Make the Crowns:** Give each student pieces of construction paper, one white strip of paper, and a glue stick. Ask the students to draw different vegetables and glue the vegetables onto their crowns. When the glue has dried, help the students assemble their crowns by stapling the ends of the white strips together to the crown fits on the students’ head.
- **Read Eating the Alphabet book.**

Adapted from: <http://growing-minds.org/documents/introducing-vegetables-veggie-crowns-lesson-set.pdf>





GRADE 2

LESSON 1

Mystery Food Bag

LESSON 2

Four Food Groups

LESSON 3

Lets Make a Rainbow



GRADE 2

LESSON 1

MYSTERY FOOD BAG

LESSON OVERVIEW

Students will be introduced to new vegetables and will understand that vegetables provide our bodies with nutrients that are important to our health. Students will have the opportunity to use their senses (touch, smell, sight) to describe different vegetables.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, talking to a trusted friend or adult when feeling sad or confused)

C2. Describe the importance of healthy eating and regular physical activity for a healthy lifestyle (e.g., to obtain the regular nutrients needed for growth, to help prevent diseases)

MATERIALS REQUIRED

- Paper bags
- Various foods: kiwi, avocado, zucchini, beet, tomato. Be sure to include some that students will know well and others that may be unfamiliar to them. This activity is an opportunity for students to discover new vegetables.
- The Vegetables We Eat book (included)



BACKGROUND INFORMATION

Picky eating can lead to children not getting all the nutrients they need. Children need a variety of foods from each food group in Eating Well with Canada's Food Guide to help make sure they get the energy and nutrients to grow and be healthy.

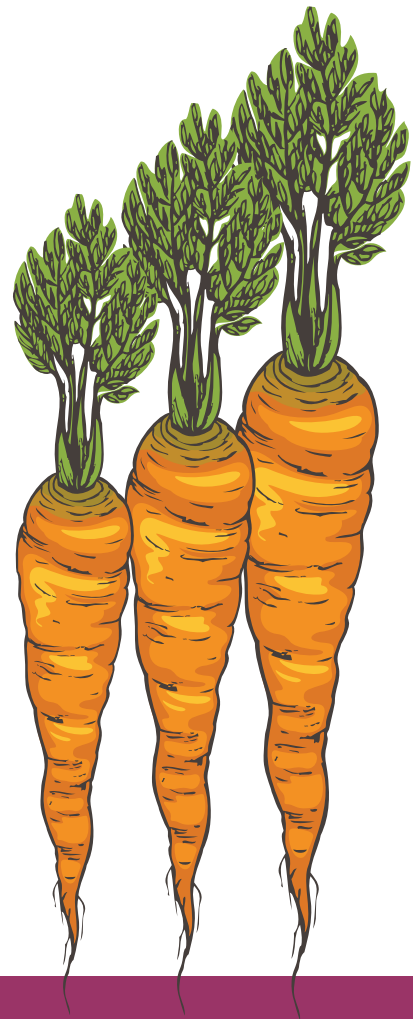
Here are some ideas on how to get children more interested in trying new foods.

- 1. Roll up your sleeves!** Get them involved in the kitchen. Children can wash fruit and vegetables, tear lettuce, mix batter or push the buttons on the microwave.
- 2. Get dirty!** Plant a garden and watch it grow! Plant vegetables outside in a garden or inside in a pot.
- 3. Get creative.** Present foods in creative ways. Make fruit or vegetable kebabs, cucumber boats or ants on a log. Cut sandwiches into fun shapes with a knife or cookie cutter. Design a face on their plate with cut vegetables, fruit, yogurt, pasta, cheese and peas, beans and lentils. Even better, get them to design it themselves!
- 4. It's in a name.** Give foods funny names like broccoli trees, carrot fingers, bean balls (peas), cucumber moons (sliced cucumber), toast soldiers (toast strips), ski slopes (mashed potatoes), Jack and the Bean Stalks (kidney beans). Or name foods after body parts like hair (noodles), hearts (strawberries), brains (ground meat or walnuts), eyes (carrots) and bones (cheese).
- 5. Learn through games and activities.** Play games and do activities to learn about food.
- 6. Go on a field trip!** Take an adventure to a local farm, farmers market or go berry picking. See all the different foods you can discover!

Source: <http://uat.eatrightontario.ca/en/Articles/Child-Toddler-Nutrition/Picky-eating--10-fun-tips-to-get-kids-to-try-new-foods.aspx>

TEACHING THE LESSON

- Have students sit on the floor in a semicircle.
- Without the children seeing, put one vegetable in the mystery food bag.
- Begin by giving students two clues that describe the hidden vegetable. For the carrot, for example: I'm an orange vegetable; I'm good for your eyes.
- Have the children take turns putting their hands into the bag and touching the food. Ask students to guess the vegetable in the bag. If necessary, give students additional clues until they guess it right. For the carrot, for example: I can be eaten raw or steamed; rabbits like me; I can also come in yellow, red, purple or white.
- Once students have guessed the vegetable, take it out of the bag, cut it and observe the inside. Does it have a smell? A core? Pit? Juicy or dry?
- Repeat the exercise with another vegetable. Once all the vegetables have been guessed, discuss which vegetables can be grown/bought in Yukon.
- Read *The Vegetables We Eat* book.





GRADE 2

LESSON 2

THE FOUR FOOD GROUPS

MATERIALS REQUIRED

- 5 hula hoops (or five large pieces of string made into circles)
- Food picture cards (provided)
- Large envelope to hold the pictures of food
- Pictures of food that do not fit into one of the four food groups (e.g., pop, candy, cookies, potato chips, butter, etc.)
- Scissors
- Glue
- 12 x 18 piece of construction paper (one per student)
- Grocery store flyers and/or magazines
- Markers
- Tub or tray to hold flyers/magazines
- Labels for each of the four food groups, plus one label for foods that do not fit into the four food groups (use an index card or sentence strip)
 - Fruits and Vegetables (5)*
 - Grain Products (4)
 - Meat and Alternatives (1)
 - Milk and Alternatives (2)
 - "Sometimes" Food Choice

Note: The number in the bracket represents the number of servings children ages 4-8 years should have per day for each food group, according to *Canada's Food Guide*.

MAKING HEALTHY CHOICES

LESSON OVERVIEW

Students will be introduced to the four food groups in *Canada's Food Guide*. They will sort the food items into their respective groups.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, healthy relationships)

C2. Identify healthy eating practices as described in *Canada's Food Guide to Healthy Eating*

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BACKGROUND INFORMATION

There are four food groups in Canada's Food Guide. They include:

- **Vegetables and Fruit**
(e.g., apple, broccoli, pear, carrot, etc.)
- **Grain Products**
(e.g., whole grain pasta, breads, crackers, etc.)
- **Milk and Alternatives**
(e.g., milk, yogurt, cheese, etc.)
- **Meat and Alternatives**
(e.g., beef, chicken, fish, eggs, nuts, etc.)

The number of serving sizes required from each Food Group to maintain a healthy diet depends on age. For children ages 4-8, the daily recommended serving sizes are:

- Vegetables and Fruit – 5 servings
- Grain Products – 4 servings
- Milk and Alternatives – 2 servings
- Meat and Alternatives – 1 serving

PREPARING TO TEACH:

1. Spread the five hula hoops (or pieces of string) out in the middle of the floor.
2. Use a marker to label the name of each food group (including the "Sometimes Food Choice" food group) on index cards or sentence strips.
3. Place a tub or tray filled with grocery store flyers, as well as scissors and glue in the middle of each work station (or group of desks).
4. Fold the construction paper into four equal sections. Use a marker to label each section with the name of each of the four food groups.
5. Cut out pictures of food or use the food cards provided from each of the four food groups (approximately 4-6 pictures per group. Also, cut out 2-3 pictures of food that would not fit into one of the food groups (e.g., pop, candy, cookies, etc.)



TEACHING THE LESSON

Begin by having the students sit in a large circle around the five hula hoops. Review the main concept of the first lesson by asking:

- **What do our bodies need for energy?**
(*food*)
- **How else does food help our body?**
(*it helps us to grow, builds strong muscles, helps us to fight an infection if we are sick, etc.*)

Once you have reviewed the importance of food for the body, tell the students that you have placed pictures of all different types of food into a large envelope. You are going to sort the pictures into the five hula hoops in the middle of the circle. You would like them to put on their “detective eyes” and watch closely as you sort the pictures. Once all the pictures have been sorted into the hula hoops, ask the students:

- **What was my sorting rule?**
(*type of food*)
- **How did you figure out the sorting rule?**
(*answers will vary*)

Point to the first hula hoop and ask:

- **What can you tell me about all the food items in this hula hoop?**
- **To which food group do all the food items in the first hula hoop belong?**

Select a student to place the correct Food Group label in the first hula hoop. Continue this line of questioning until labels for all four Food Groups have been placed with their respective food items. Explain to the students that these foods are “Everyday Foods” that are all part of a healthy diet. These foods give us energy and help us to grow.

Next, ask the students:

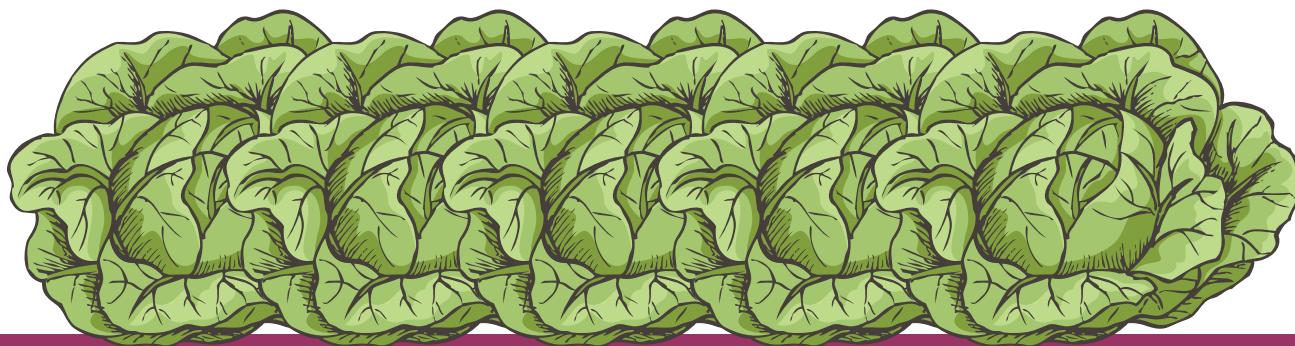
- **What food items do we have left in our final hula hoop?**
(*e.g., chips, pop, etc.*)
- **Do you think these items help our body to grow?**
- **What do you think we should call food items in this group?**

Hold up the label, “Sometimes Food”. Explain to the students that these food items do not belong to one of the “Everyday Healthy Food Groups”. That does not mean that these foods must not be eaten, but they should be eaten in moderation (not on a daily basis). Finally, point to the number in brackets at the end of each food label.

Ask: What does this number represent?

Explain to the student that in order to eat a healthy diet, it is important to have different foods from each of the four food groups. The number in the brackets tells us how many servings of each type of food we should have every day.

Note: At this age, the concept of “serving size” may be developmentally too abstract. You may wish to provide examples of serving sizes to help with this concept.



FOLLOW-UP ACTIVITY

Distribute one piece of construction paper to each student. (Note: You may wish to divide students into pairs and do this as a cooperative activity.) Have the students cut out pictures of foods from grocery flyers/magazines and glue the pictures under the appropriate food group heading.

EXTENDING THE LESSON

Break for snack/lunch break approximately ten minutes early. Have the students bring their lunch bags to the carpet. Ask the students to sort their lunches into the four food groups before they eat it.

Ask:

- **Do you have a food item from each food group?**
- **Do you have any food items that belong to more than one food group?** (e.g., ham sandwich with cheese and lettuce – Grain Products, Fruits and Vegetables, Milk and Alternatives)
- **Do you have a healthy lunch/snack?**
- **What could you add or take away to make your lunch a healthy snack/lunch?**





GRADE 2

LESSON 3

LET'S MAKE A RAINBOW

A CLOSER LOOK AT FRUITS AND VEGETABLES

MATERIALS REQUIRED

- Samples of fruits and vegetables from each of the five different colour groups (provided by the students)
- Extra samples of fruits and vegetables (in case a student forgets or is unable to bring one to school)
- Cutting board
- Paper plates
- Serving trays
- 5 large circles cut out of construction paper (green, red, blue, white, yellow)
- 12 x 18 piece of construction paper (one per student)
- Grocery store flyers and/or magazines
- Markers
- Tub or tray to hold flyers/magazines
- Letter home to parents/guardians (included)

Note: Be aware of food allergies before conducting this lesson. If there are students in the class with an allergy to a specific fruit/vegetable, kindly ask parents to refrain from sending that item to school. There is a spot provided on the "Letter Home to Parents" to record allergy alerts.

Note: Depending on allergies, you may wish to provide a variety of dips for students to sample with their fruits/vegetables (e.g., ranch dip, yogurt dip, cinnamon, etc.)

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LESSON OVERVIEW

Students will be introduced to a variety of fruits and vegetables. They will sort the food items based on colour, discuss the benefits of a diet rich in fruits and vegetables, and sample different types of fruits and vegetables.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, healthy relationships)

C2. Identify healthy eating practices as described in *Canada's Food Guide to Healthy Eating*

BACKGROUND INFORMATION

Fruits and vegetables belong to five different colour groups:

- **Green**
cucumber, kiwi, spinach, green grapes, honeydew
- **Red**
apples, strawberries, tomatoes, beets, red pepper
- **Blue/Purple**
blackberry, blueberry, grapes, plum, eggplant
- **White/Tan/Brown**
bananas, potatoes, pears, mushrooms, cauliflower
- **Yellow/Orange**
carrot, mango, sweet potato, orange, cantaloupe

The colour of the fruit or vegetable is determined by whether or not you eat the peel. If you eat the peel, then you go by that colour. If, however, you peel the fruit/vegetable, then you go by the colour on the inside.

PREPARING TO TEACH:

1. Print out the Letter Home to Parents. Record the date for students to bring in their fruit/vegetable to class.
Copy the letter and distribute.
2. Cut out five large construction paper circles (one for each of the colour groups – green, red, blue, white, yellow)
3. If possible, arrange to have a parent volunteer assist you on the day of the activity. The volunteer can assist with washing, cutting and serving of fruits/vegetables.

TEACHING THE LESSON

Begin by asking the students to bring the fruit and vegetable they brought to school to the circle. Ask them to place their items behind their back. Note: Distribute extra pieces of fruit/vegetables to students who forgot or were unable to bring samples to school. Tell the students that you are going to give an example of how you would like each of them to introduce the fruit and vegetable they have brought to school. Hold up a piece of fruit in front of you for all the students to see.

Say:

“This is a (name the fruit). Two words that would describe this fruit are _____ and _____.”

Explain to the students that you are going to go around the circle and have each student introduce the fruit they have brought and say two words that describe their fruit. Encourage students to describe the colour, texture, shape or smell of the fruit. Have the students introduce their fruits. Provide assistance with descriptive words, as necessary. Next, hold up a vegetable in front of you for all the students to see.

Say:

“This is a (name the vegetable). Two words that would describe this vegetable are _____ and _____.”

Once again, move around the circle asking each student to introduce the vegetable they have brought and say two words that describe their vegetable. Provide assistance with descriptive words, as necessary.

Afterwards, place the five construction paper cut out circles, representing each of the “Colour Groups”, in the middle of the circle. Tell the students that fruits and vegetables belong to five different colour groups. Each circle cut out represents one of the five colour groups. Introduce each of the colour groups. Be sure to clarify that some colour groups contain more than one colour (e.g., blue/purple, white/tan/brown, yellow/orange).

Ask the students:

- **How many servings of fruits and vegetables are you supposed to have each day?** (4-6)
- **Why do we eat fruits and vegetables** (they contain vitamins and minerals that our bodies need to stay healthy, they provide energy for our bodies, etc.)

Tell the students that it's important to eat a variety of fruits and vegetables from all the colour groups. Then say, "Let's see if we have samples from each of the five colour groups". Ask the students to take a moment to look at the fruit/vegetable they brought to school. Tell them that in a moment, you would like them to place their fruit and vegetable in colour group to which they belong. For example, ask:

- **In which colour group would I place a carrot?** (yellow/orange)
- **In which colour group would I place a strawberry?** (red)

Now, tell the students you have a trick question. Ask:

- **In which colour group, would I place a kiwi?** (green)
- **What colour is the outside of a kiwi?** (brown)
- **Do we eat the outside of a kiwi?** (no)
- **What colour is the inside of a kiwi?** (green)

Explain to the students that some fruits and vegetables like to trick us because their peel is a different colour than the fruit/vegetable inside. The rule of thumb is: If you eat the peel, then the fruit belongs to the colour group that is the same as the peel (e.g., a red apple belongs to the red group). If you don't eat the peel, then the fruit/vegetable belongs to the colour group of the inside part that you eat (e.g., a kiwi belongs to the green group).

Ask the students to carefully place their fruit/vegetable in the appropriate colour group. Once all the fruits/vegetables have been placed into their groups, review each colour group by saying:

- **Look at all the fruits/vegetables that have been placed in the _____ (state colour) group? Are there any fruits/vegetables that have placed in this group that may belong to another group?**

If any items have been placed in the wrong colour group, encourage the students to state why it doesn't belong, as well as suggest to which group it belongs.

Have the volunteer(s) wash and cut the samples of fruits and vegetables and place them on serving trays.

FOLLOW-UP ACTIVITY

Ask the students to select and sample five fruits/vegetables from the assortment provided. Remind the students that they are selecting five because a healthy diet includes five servings of fruits and vegetables each day. You may wish to encourage students to sample fruits/vegetables which they have not had before. Students should not be forced to eat the sample fruits/vegetables, but rather should be encouraged to try them. Enjoy the rainbow feast!

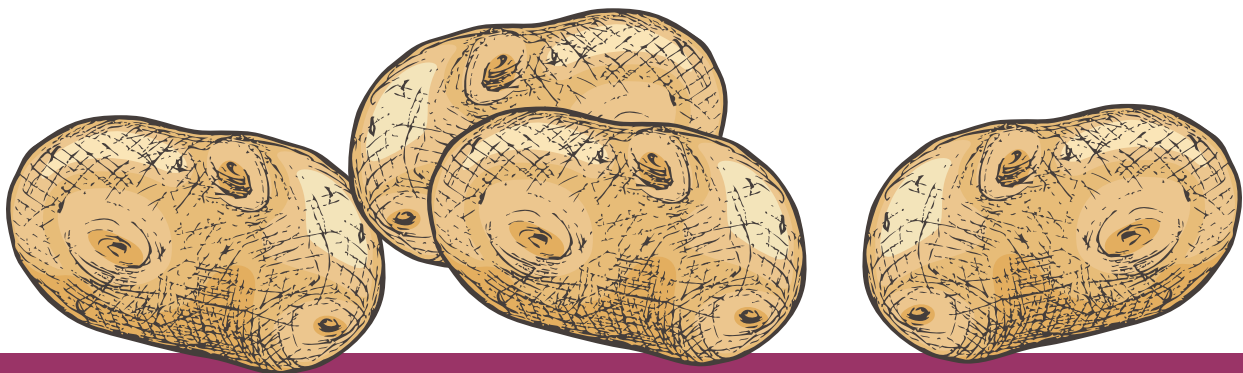
EXTENDING THE LESSON

Invite families to send in their favourite recipes from home that include fruits and vegetables. Create a "Healthy Classroom Recipe Book". Have the students design a cover for the book. Print copies of the book and distribute to classroom families.

Have students record on a calendar the fruits and vegetables they eat over a one week period. At the end of the week, ask the students to evaluate their eating habits to see if they are eating the recommended five servings of fruits and vegetables per day.

Create a "Friendship Fruit Salad". Have each student in the class bring one piece of fruit to school. Have the students share the fruit that they brought to school by naming it, stating which "colour group" it belongs to, and two interesting characteristics about the fruit. Have a parent volunteer wash and cut up the fruit and prepare a rainbow fruit salad. Scoop the fruit into small cups and have the students enjoy a tasty, healthy, colourful snack.

Gather a collection of fruits and vegetables representing each of the five different colour groups. Have the students sort the fruit and create a bar graph based on their findings.



LETTER HOME TO PARENTS/GUARDIANS

DEAR PARENTS/GUARDIANS:

As part of the Grade 2 Health curriculum, we are learning about the following:

- **The importance of food as a means for providing energy for our bodies**
- **The four food groups in Canada's Food Guide**
- **Ways to eat a balanced diet**
- **Healthy snacks and drinks**

Students will also be learning about the five fruit/vegetable "Colour Groups". They are:

- **Green** – cucumber, kiwi, spinach, green grapes, honeydew
- **Red** – apples, strawberries, tomatoes, beets, red pepper
- **Blue/Purple** – blackberry, blueberry, grapes, plum, eggplant
- **White/Tan/Brown** – bananas, potatoes, pears, mushrooms, cauliflower
- **Yellow/Orange** – carrot, mango, sweet potato, orange, cantaloupe

Did you know the colour of the fruit or vegetable is determined by whether or not you eat the peel?! If you eat the peel, then you go by that colour. If, however, you peel the fruit/vegetable, then you go by the colour of the inside.

Next week, we will be providing the students with a unique taste-testing opportunity called "**Eating a Rainbow of Colours**". This is where we need your help. We would greatly appreciate it if you could send **one fruit** and **one vegetable** with your child to school on _____. There are a wide range of fruit and vegetable options to choose from.

We will be discussing the characteristics of the different fruit/vegetable samples brought to class, as well as sorting them into their "**Colour Group**". Finally, with the help of some volunteers, we will wash, cut and provide samples of each item. The students will be encouraged to sample five different types of fruits and vegetables to support the recommendation that children aged 4-8 should have five servings of fruits and vegetables per day.

Please note: We have some students in our classroom with **allergies**. To make this an enjoyable and safe experience for everyone, please refrain from sending your child with _____.

Thanks so much for your continued support. We look forward to this exciting activity that promotes healthy eating for healthy bodies.

Sincerely,

PS – If you are interested in volunteering to wash and cut vegetables the day of our "**Eating a Rainbow of Colours**" event, please feel free to contact me at _____.

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GRADE 3

LESSON 1

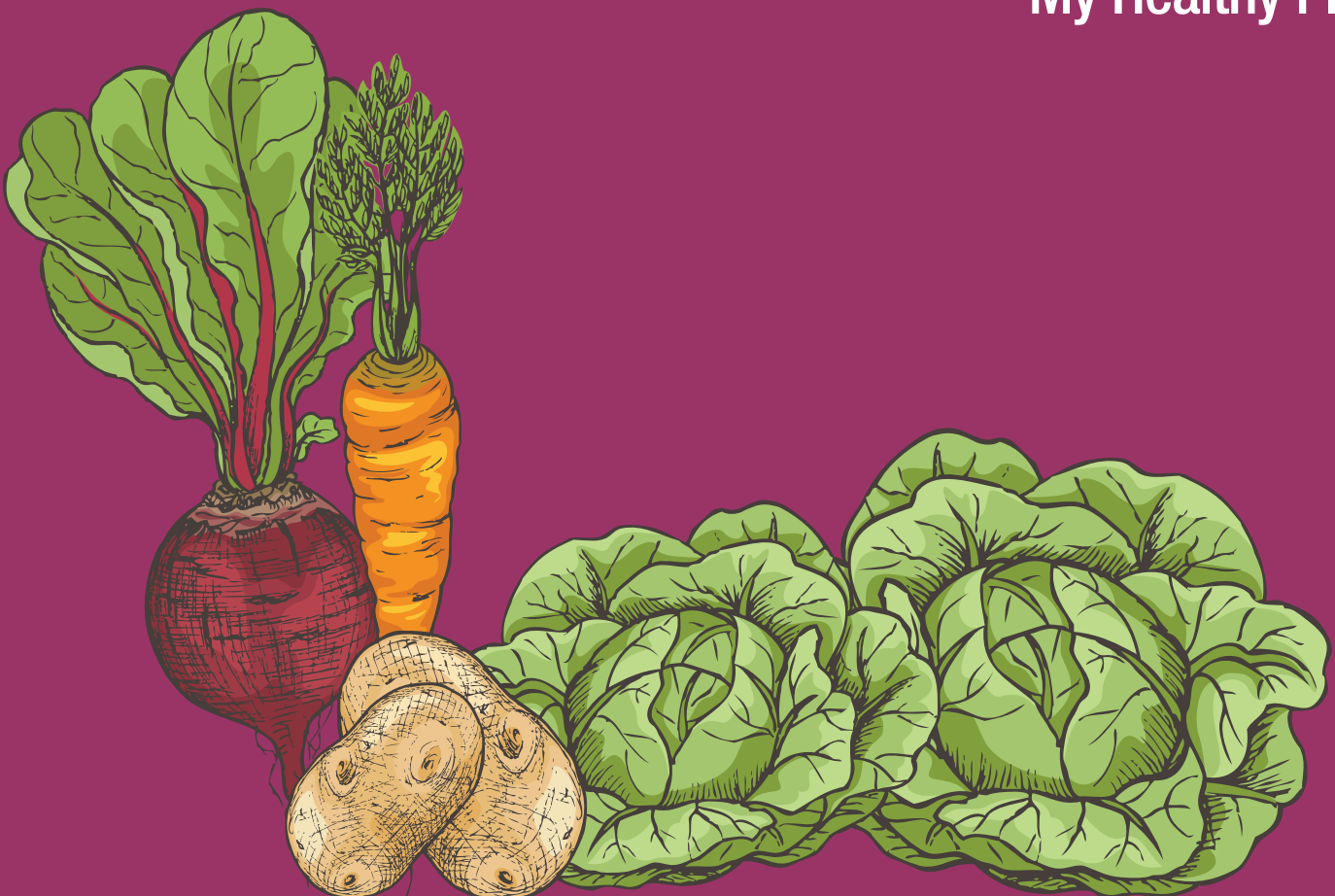
Which one doesn't belong?

LESSON 2

Making stone soup

LESSON 3

My Healthy Plate



GRADE 3

LESSON 1

WHICH ONE DOESN'T BELONG?



LESSON OVERVIEW

Students will listen to the story “I Will Never Not Ever Eat a Tomato”, by Lauren Child. They will discuss the importance of healthy eating and review Canada’s Food Guide (specifically, the four food groups and number and size of servings).

PRESCRIBED LEARNING OUTCOMES: HEALTH

- C1. Describe practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, talking to a trusted friend or adult when feeling sad or confused)
- C2. Describe the importance of healthy eating and regular physical activity for a healthy lifestyle (e.g., to obtain the required nutrients needed for growth, to prevent diseases)

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MATERIALS REQUIRED

- Picture book - “I Will Never Not Ever Eat a Tomato” by Lauren Child (Candlewick, 2003)
- Food picture cards (provided)
- large envelope to hold the pictures of the food
- “My Healthy Food Guide” follow-up activity sheet (included) (one per student)
- Scissors
- Glue
- Grocery store flyers/magazines
- Tub or tray to hold flyers/magazines

BACKGROUND INFORMATION

There are four food groups in Canada's Food Guide.

They include:

- **Vegetables and Fruits**
(e.g., apple, broccoli, pear, carrot, etc.)
- **Grain Products**
(e.g., whole grain pasta, breads, crackers, etc.)
- **Milk and Alternatives**
(e.g., milk, yogurt, cheese, etc.)
- **Meat and Alternatives**
(e.g., beef, chicken, fish, eggs, nuts, etc.)

The number of serving sizes required from each Food Group to maintain a healthy diet depends on age. For children ages 4-8, the daily recommended serving sizes are:

- **Vegetables and Fruit | 5 servings**
- **Grain Products | 4 servings**
- **Milk and Alternatives | 2 servings**
- **Meat and Alternatives | 1 serving**

Examples of one Food Guide serving are:

VEGETABLES AND FRUIT

- 125 mL (1/2 cup) fresh, frozen, or canned vegetable or fruit
- 250 mL (1 cup) leafy raw vegetables or salad
- 1 piece of fruit

GRAIN PRODUCTS

- slice (35 g) bread or 1/2 bagel (45 g)
- 1/2 pita (35 g) or 1/2 tortilla (35 g)
- 125 mL (1/2 cup) cooked rice, pasta, or couscous
- 30 g cold cereal or 175 mL (3/4 cup) hot cereal

MILK AND ALTERNATIVES

- 250 mL (1 cup) milk or fortified soy beverage
- 175 g (3/4 cup) yogurt
- 50 g (1 1/2 oz.) cheese

MEAT AND ALTERNATIVES

- 75 g (2 1/2 oz.)/125 mL (1/2 cup) cooked fish, shellfish, poultry or lean meat
- 175 mL (3/4 cup) cooked beans
- 2 eggs
- 30 mL (2 Tbsp) peanut butter

PREPARING TO TEACH:

1. Locate the book "I Will Never Not Ever Eat a Tomato" by Lauren Child.
2. Sort the food picture cards into their respective food groups, then place one food item that does not belong into each of the four food groups. For example, have four pictures of fruits and vegetables, then add one picture of a grain product to the group. Place these pictures into one large envelope. Aim to have 8-10 envelopes of pictures. These envelopes will be used for the game "Which one doesn't belong?".
3. Photocopy the "My Guide to Healthy Eating" follow-up activity sheet (one per student).
4. Place a tub or tray filled with grocery store flyers, as well as scissors and glue in the middle of each work station (or group of desks).



TEACHING THE LESSON

Have the students sit in a large group. Begin by reading the story, “I Will Never Not Ever Eat a Tomato”. This adorable story is about a young girl named, Lola who is a fussy eater. She refuses to eat her vegetables until her brother, Charlie, makes eating healthy treats an adventure.

After reading the story, ask the students:

- **What can you tell me about Lola’s eating habits at the beginning of the story?**
- **What are some of the healthy foods that Lola refuses to eat?**
- **How does Lola’s brother, Charlie, get her to eat her vegetables?**
- **Why is it important for Lola to eat vegetables and fruit and other healthy food choices?**
- **Why do our bodies require food?**
(for energy, to stay healthy, to grow big and strong, and to fight off infections)

Next, review the four basic food groups with the students. Remind the students that the food we eat is divided into four main Food Groups.

Ask: Can anyone identify one of the four food groups?

Once a food group has been identified, ask the students to provide examples of different foods found in that food group.

Encourage the students to identify the remaining three food groups and provide examples for each.

Next, have the students spread out into a large circle. Then, tell the students that you are magically going to transform them into “Healthy Food Detectives”. Have fun with this. Ask them to put on their imaginary trench coat, take out their imaginary recording book, and find their imaginary magnifying glass. Now that you have a class of “detectives”, explain their task in the game “Which One Doesn’t Belong?”

Hold up one envelope (filled with five pictures of different foods – four that belong to the same food group and one that does not). Tell the students that in this envelope there are five pictures of different types of food. In a minute, you are going to open the envelope and reveal the five pictures inside. It is their job, as detectives, to review the pictures and

determine which picture does not belong. When they have figured out which picture does not belong they have to give the “secret detective signal”. The “secret detective signal” is putting one hand behind their back and one hand, holding their imaginary magnifying glass up to their eye.

Reveal the contents of the first envelope. Remind the students to remain silent and to just give the secret detective signal when they know which picture doesn’t belong. Once all (or most) of the students are giving the signal, ask:

- **Which one doesn’t belong?**
- **Why doesn’t this item belong?**
- **To what food group do all the other items belong?**
- **To what food group does this item belong?**

Continue with this same procedure with the items in the remaining envelopes. Remind students, that a healthy diet includes foods from each of the four food groups.



FOLLOW-UP ACTIVITY

Distribute one copy of the activity sheet “My Guide to Healthy Eating” to each student. Have the students cut out pictures of foods from grocery store flyers/magazines. Then, have the students glue the appropriate number of serving size examples under each food group heading. For example, they will require pictures of:

- **5 fruits/vegetables**
- **4 grain products**
- **1 meat and alternatives**
- **1 milk and alternatives**

You may wish to do a sample activity sheet together as a class to ensure that students understand the task.

EXTENDING THE LESSON

- Have the students create an Acrostic Poem for their favourite healthy food item. For example,

C runchy

A wesome

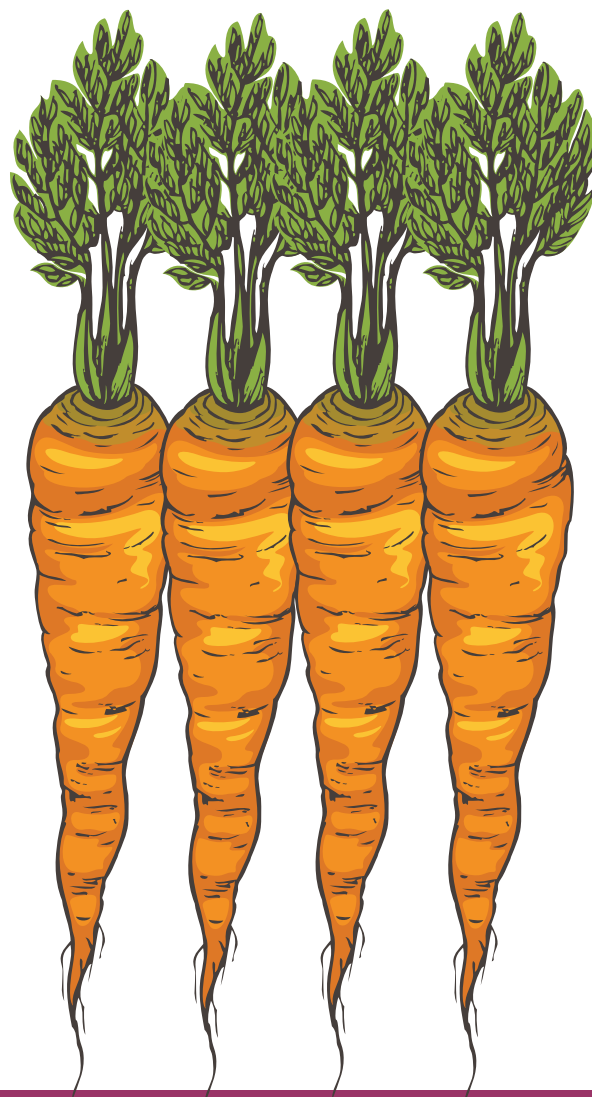
R abbitts love them

R eally yummy!

O range

T asty

- Create a “We Love Healthy Foods” class poetry book. Collate the acrostic poems into a large class book. Have the students design a cover for the book. Print 2-3 colour copies of the book and send it home to the classroom families.



MY GUIDE TO HEALTHY EATING

FRUITS AND VEGETABLES (5 SERVINGS)



GRAIN PRODUCTS (4 SERVINGS)

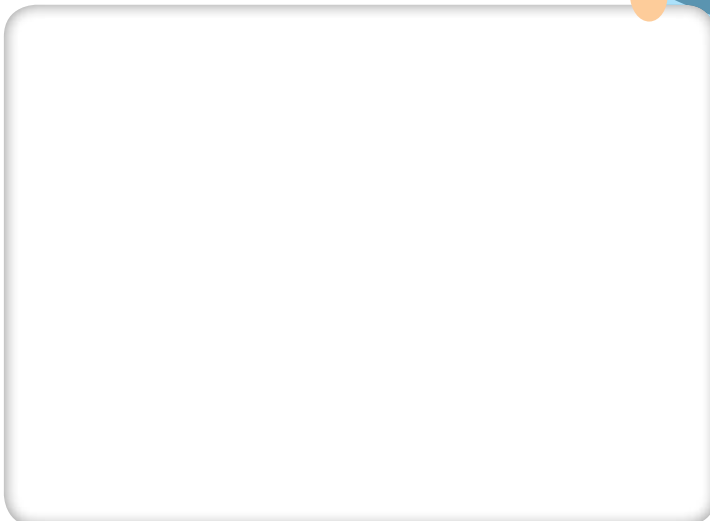


THIS IS WHAT I
NEED TO EAT TO
STAY HEALTHY!

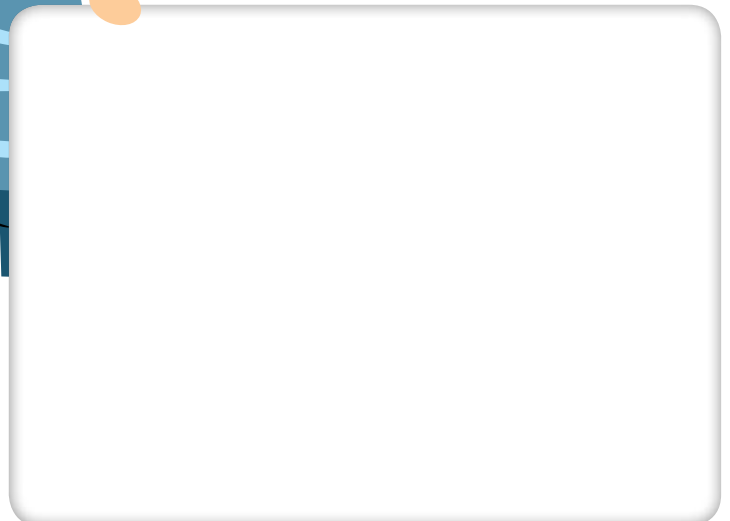


Freggietales.ca

MEAT AND ALTERNATIVES (1 SERVING)



MILK AND ALTERNATIVES (1 SERVING)



GRADE 3

LESSON 2

MAKING STONE SOUP

LESSON OVERVIEW

Students will learn about the importance of community when eating, growing and sharing food. They will learn how to prepare a basic, nutritious soup.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, talking to a trusted friend to adult when feeling sad or confused)

C2. Describe the importance of healthy eating and regular physical activity for a healthy lifestyle (e.g., to obtain the required nutrients needed for growth, to help prevent diseases)

MATERIALS REQUIRED

- Ingredients and equipment to make stone soup
- Stone Soup book (included)
- Recipe cards (included)
- Mason jars (optional)

BACKGROUND INFORMATION

Nothing beats the taste of fresh fruits and vegetables in season. But frozen and canned produce can be just as nutritious since it's usually picked and packed at the peak of ripeness when nutrient levels are highest. Frozen or canned produce allow us to enjoy a variety of vegetables and fruit year-round. It's also sometimes more affordable than fresh produce. Cooking with frozen or canned produce can also save you time in the kitchen! Read the labels: The healthiest choices are products that contain no added sugar, fat or salt.

When families work together to plan and prepare a meal, everyone wins. Families eat better when they cook and eat together. Home cooked meals are usually more balanced and nutritious. Meals at the dinner table generally include more fruits, vegetables and dairy products and less salt, fat and sugar.

Mealtime gives families a chance to bond, connect, plan and learn from one another. Family mealtimes provide structure and security for children and create a sense of belonging for the entire family.

Getting kids in the kitchen provides an opportunity for kids to develop the following skills:

- Sensory - through tasting, hearing, touching, smelling and seeing, children will be exposed to different foods and asked to identify them.
- Motor - active involvement in food preparation will help develop gross and fine motor skills as well as enhance hand-eye coordination.
- Mathematics - children will count, measure and follow recipe directions in the food-related activities.
- Safety - children will learn the importance of safety when handling food, utensils and appliances.
- Social - working with other children will give the kids a sense of sharing and cooperation and an understanding of how to interact with others in groups. They will be able to learn from one another.
- Emotional development - learning to cook fosters confidence, independence and a sense of accomplishment.
- Language - food activities provide a rich opportunity to learn the names of foods and utensils. Many food activities can also encourage conversations about food likes, dislikes and experiences children have had with food.

Source: *Kids in the Kitchen*

TEACHING THE LESSON

Read the Stone Soup Story:

Discuss the themes in the book

- Why didn't the community want to share their food?
- What happened when they decided to share?
- Was the soup really made of stones?
- Why do you think it's so important to share meals with other people?
- If you were making a stone soup, what would you choose to bring?
- What ingredients could go in the stone soup that we can grow/buy in Yukon?

Make the stone soup:

**Prior to the activity, ask students to bring in a small amount of any soup ingredient from home. Not all students need to do this, but it makes for a fun addition or "secret ingredient" to every stone soup.

Ingredients:

- 1 large, clean stone
- 1/2 cup oil
- 4 cloves of garlic, crushed
- 2 chopped onions
- 4 stalks chopped celery
- 4 chopped carrots
- 2 can of lentils, rinsed and drained
- 2 cups of pearl barley, pre-soaked
- "Surprise ingredients!"
- 4 L of water or enough to cover the mixture
- Pepper & Salt to taste

Directions:

- In a large pot, sauté the garlic in the oil until fragrant
- Add the onions and fry until soft and translucent
- Add the carrots and celery and cook until just softened
- Add the lentils, pearl barley and water and bring to a boil
- Add the stone
- Add in any "secret ingredients" as needed (ie root vegetables earlier, more perishable (canned or frozen) vegetables later
- Once boiling, reduce the heat and simmer for at least 20 minutes
- Add salt and pepper to taste

Recipe card decoration

Pre-prepare small recipe cards by printing out the cards attached or have the students make their own. Students can draw a picture on the back of their recipe card, showing them eating or sharing some food with their friends or family. If there is time, students can share their drawing with the rest of the class.

Soup tasting

Once the soup is ready, dish out small tastings of the soup for the students to enjoy together. While eating, pour into small mason jars for taking home.(optional)

Adapted from: Stone Soup: Making Stone Soup. www.foodshare.net

STONE SOUP

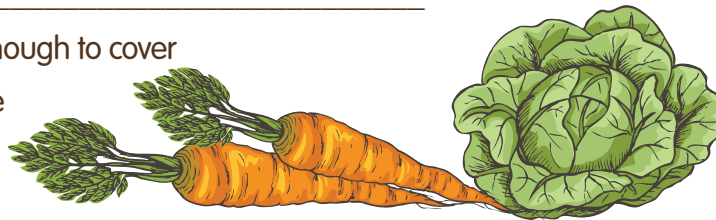
Ingredients:

- 1 large, clean stone
 - ___ tablespoons of oil
 - ___ tablespoon of finely chopped garlic or sliced dried garlic
 - ___ chopped onion
 - ___ stalks of chopped celery
 - ___ chopped carrots
 - ___ cup of legumes (e.g., beans, chickpeas...)
 - ___ cup of grains (e.g., barley, pasta...)
 - "Surprise ingredients" (e.g., whatever is left in your fridge!):
-

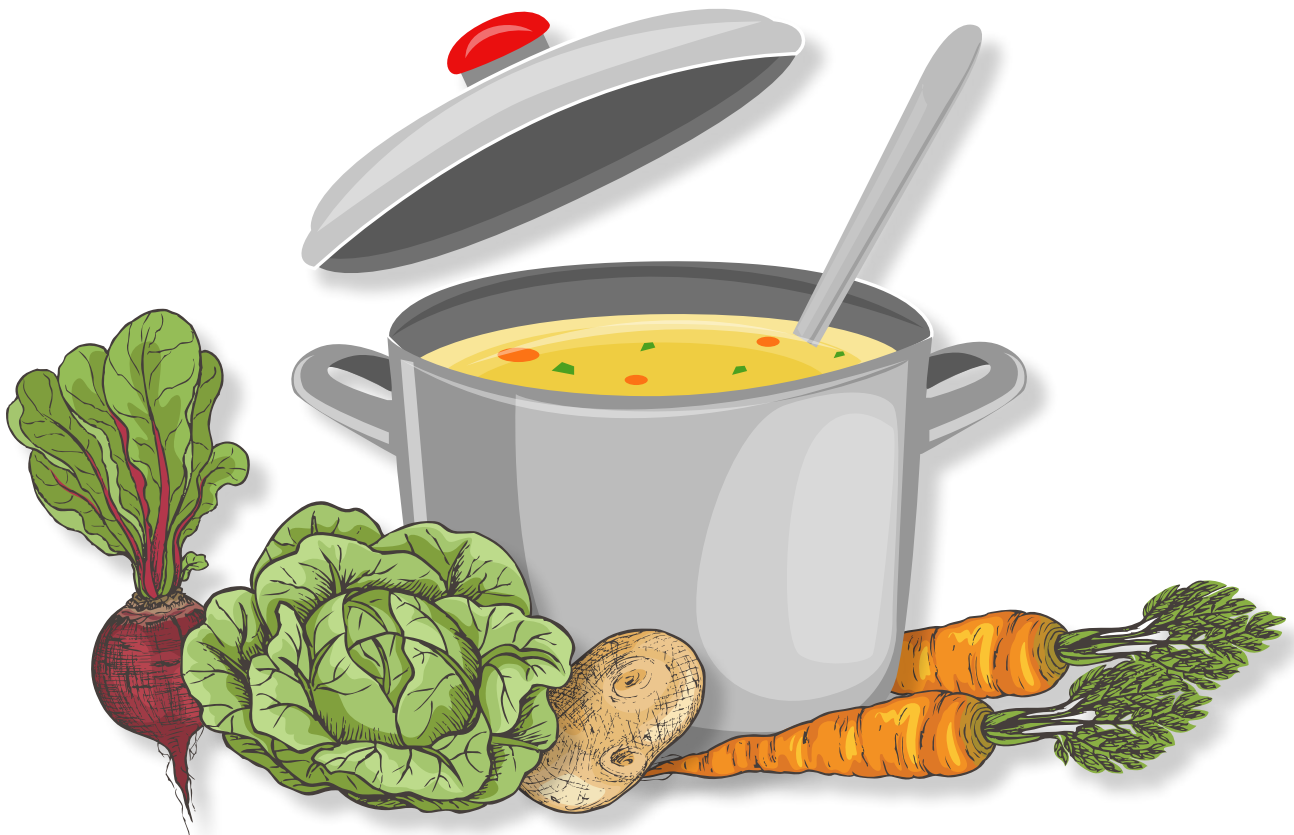
___ cups of water or enough to cover
salt and pepper to taste

Method:

1. In a large pot, sauté the onion and garlic in the oil until fragrant
2. Add the legumes, grains and water and bring to a boil
3. Once boiling, reduce the heat and simmer for 40 minutes or until the legumes and grains are tender
4. Add the carrots, celery and any other "surprise ingredients" and cook until just softened
5. Add salt and pepper to taste



**ENJOY WITH
FRIENDS AND
FAMILY!**



GRADE 3

LESSON 3

MY HEALTHY PLATE

LESSON OVERVIEW

Students will learn that foods are divided into 4 food groups and that a well-balanced diet includes a variety of foods.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C1. Identify practices that contribute to physical and emotional health (e.g., regular physical activity, healthy eating, talking to a trusted friend or adult when feeling sad or confused).

C2. Describe the importance of healthy eating and regular physical activity for a healthy lifestyle (e.g., to obtain the required nutrients needed for growth, to help prevent diseases).

MATERIALS REQUIRED

- Labels for each of the 4 food groups
- Food picture cards (provided)
- Copies of Canada's Food Guide (included)
- Portion plate (included)
- Half Your Plate worksheet (provided)
- Coloured pencils for students
- To Market to Market book (included)

BACKGROUND INFORMATION

Eating a healthy, balanced diet starts with understanding what a healthy serving of each of the four food groups is. A healthy food choice includes not only the type of food, but also the serving size and how it is prepared.

It is important to remember that foods and meals should not be labeled as good and bad. All foods fit to make an overall healthy eating pattern.

Everyday foods can be enjoyed most of the time. Eating Well with Canada's Food Guide includes examples of everyday foods such as carrots, whole wheat bread, lower fat milk, chicken, etc. These foods give us the vitamins, minerals and other nutrients we need.

When we choose everyday foods regularly and limit foods high in fat, salt (sodium) and sugar (sometimes foods) we will:

- Feel and look better
- Have better overall health
- Be more energetic
- Have stronger muscles and bones
- Maximize growth and learning
- Maintain a healthy body weight
- Lower risk of some diseases

Sometimes foods can be enjoyed some of the time. Canada's Food Guide recommends limiting foods and beverages high in calories, fat, sugar or salt (sodium) such as:

- Cakes and pastries
- Chocolate and candy
- Cookies
- Granola bars
- Donuts
- Ice cream
- French fries
- Potato chips
- Soft drinks and sports drinks

Can a sometimes food be included as a Canada's Food Guide serving?

Sometimes foods should not be considered part of a food group. For example, even though potato chips are made from potatoes, we would not consider deep fried potato chips part of the Vegetables and Fruit food group. Sometimes foods can be enjoyed and are a part of healthy eating. We want to avoid eating these foods too often, or in large portions. Sometimes foods can fill our appetite and leave less room for healthier everyday foods.

Source: <http://www.peelregion.ca/health/shp/nutrition-campaign/pdf/everyday-foods-and-sometimes-foods-1008.pdf>

To ensure you are eating a balanced meal using everyday foods, try using the Healthy Plate method.

How do I build a Healthy Plate?

Imagine your plate divided into three sections. At least half ($\frac{1}{2}$) of your plate should be vegetables and fruit. The other half of your plate can be split into two quarters. One quarter ($\frac{1}{4}$) is for grain products and one quarter ($\frac{1}{4}$) for meat and alternatives. Complete the meal with a choice from milk and alternatives, for example, 1 cup (250 mL) of milk.

Choose a medium sized plate (about the size of a Frisbee) to help you keep your portions healthy. If you have a large plate, fill only the middle of the plate. Don't fill a larger plate right to the edge with food.

TEACHING THE LESSON

- Make a chart on the board (of the 4 food groups) or label the 4 food groups on pieces of construction paper and place on the floor. Explain that all foods are classified into the following 4 food groups: vegetables and fruits, grain products, milk & alternatives, meat & alternatives. Ask the students to help you fill in the chart by giving examples of each food group or use the picture cards provided.
- Build a plate: show students your portion plate. Ask them which section of the plate is the biggest? How do the different sized sections compare to each other? Which foods should they eat the most of?
- Colouring their healthy plate: give each student a Half Your Plate worksheet. Ask them to fill in their plate with drawings of foods that represent their favourite foods from each of the 4 food groups. Remember to fill your plate with "every day foods" instead of "sometimes foods".
- Read To Market to Market. Ask the students if they have ever been to a market or a farm? What types of foods were at the market/farm. What types of foods can you grow/buy in Yukon?

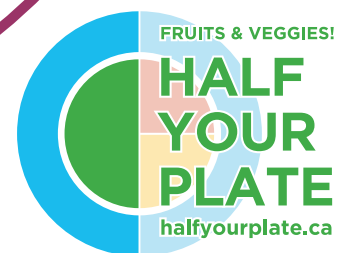
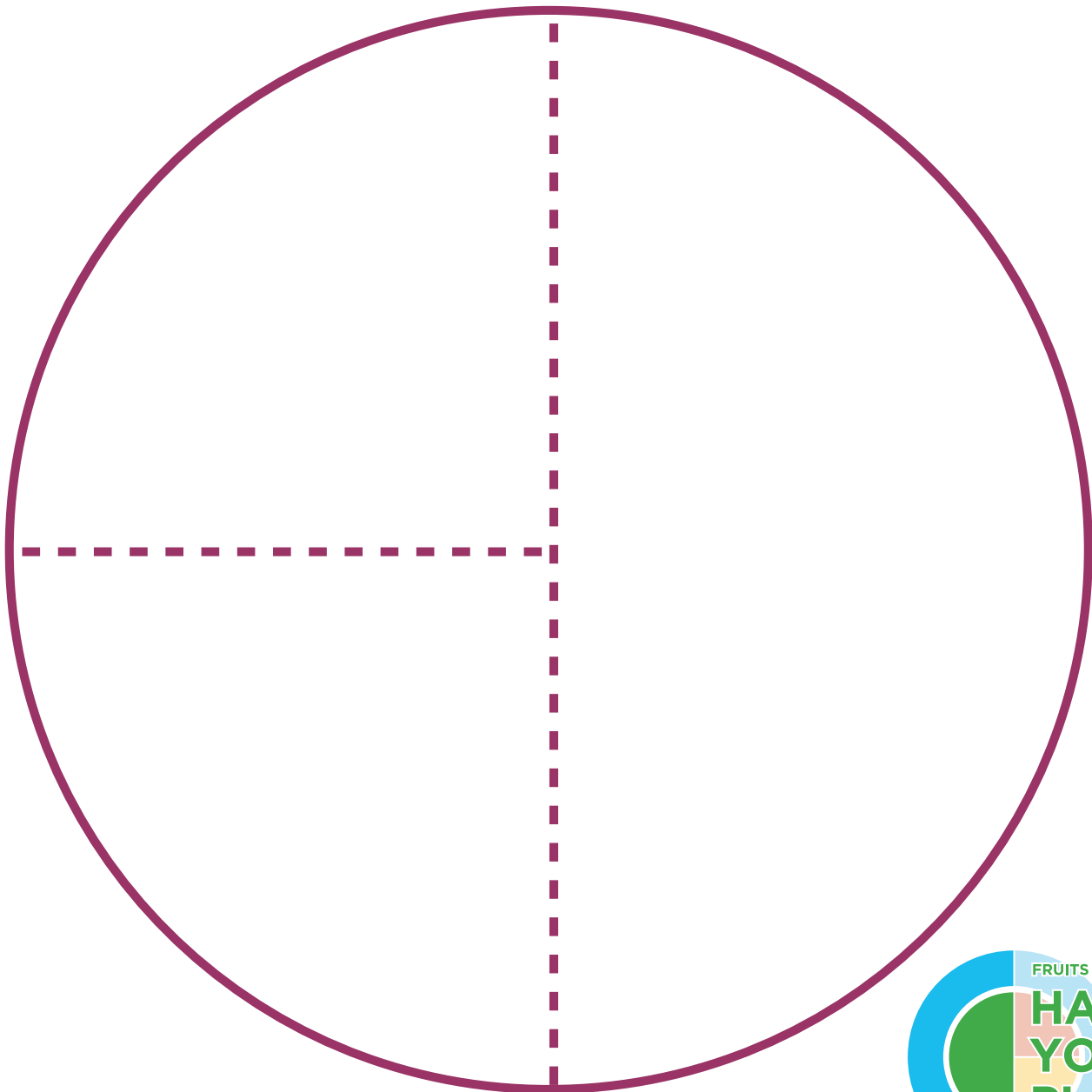
Source: <http://growing-minds.org/documents/my-plate-lesson-plan.pdf>



HALF YOUR PLATE WORKSHEET

Name: _____

MY HEALTHY PLATE





GRADE 4

LESSON 1

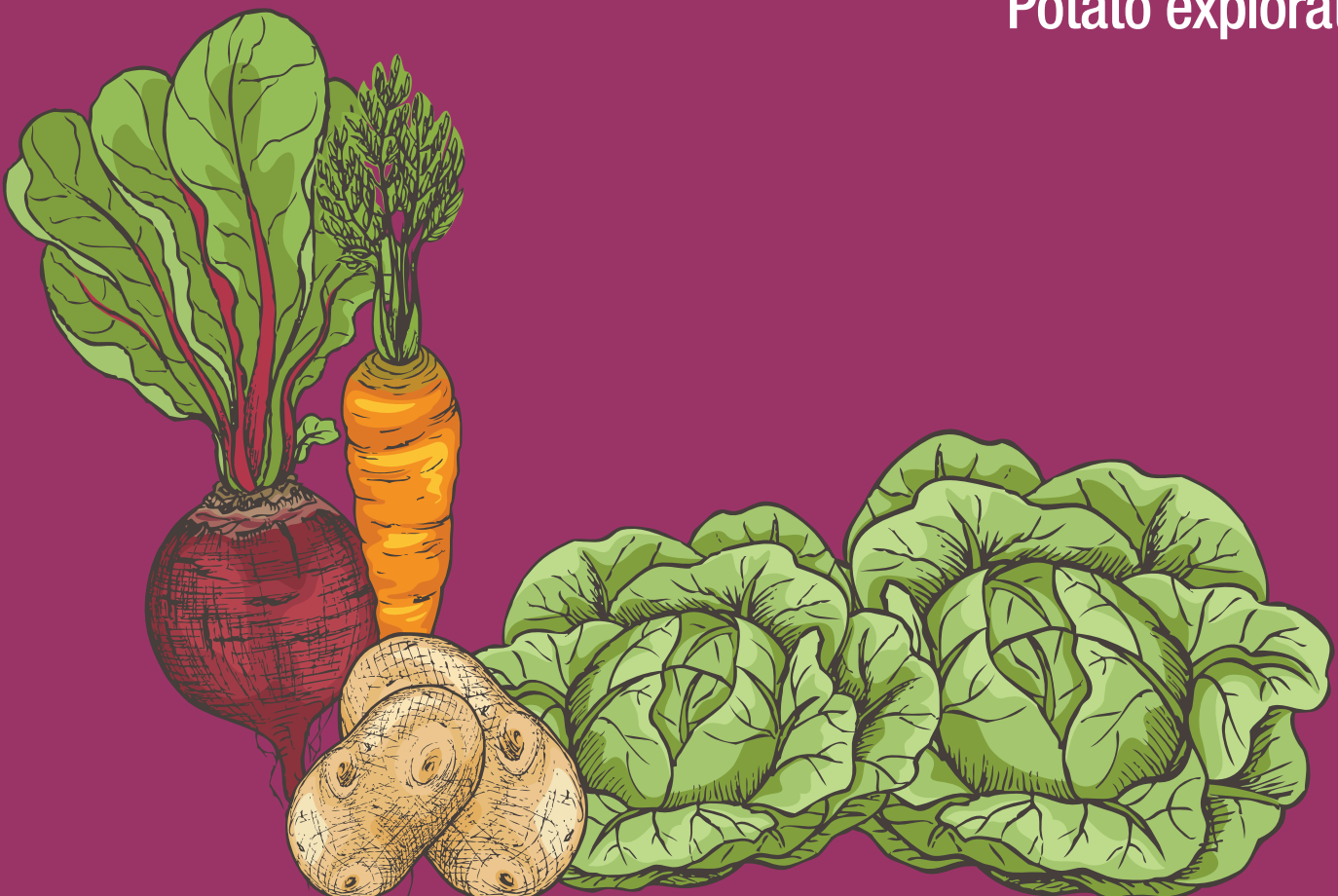
It's all about the nutrients

LESSON 2

On a mission – promoting healthier food choices

LESSON 3

Potato exploration



GRADE 4

LESSON 1



IT'S ALL ABOUT THE NUTRIENTS!

LESSON OVERVIEW

Students will learn about the 6 key nutrients they need to keep their bodies healthy. Working cooperatively, students will research information about the nutrients and share it with the class.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe choices they can make for healthy eating, based on Canada's Food Guide to Healthy Eating.

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MATERIALS REQUIRED

- 6 Key Nutrient Information Cards (included) (Source: <http://kidshealth.org/kid/>)
- Chart paper
- marker
- "Amazing Nutrients" recording sheet (included)
- Pencil
- Eraser
- Glue stick
- Construction paper
- Stapler
- Blank paper for title page 8 1/2 x 11 sheet of paper cut in half horizontally

BACKGROUND INFORMATION

There are six essential nutrients for the body.

CARBOHYDRATES

- The body's primary source of energy
- Considered "high-quality fuels" because it takes little effort to release their energy
- A diet too low in carbohydrates results in the body having too little energy (feeling tired, lethargic and less alert)
- A diet too high in carbohydrates can lead to obesity (excess carbohydrates are stored as fat)
- 2 types of carbohydrates:
 - **COMPLEX CARBOHYDRATES:** include starches and some forms of fibre (Food examples: pasta, wheat, corn, vegetables, fruit, beans and grains)
 - **SIMPLE CARBOHYDRATES:** include sugars such as glucose, fructose and sucrose (Food examples: candy, soft drinks, cake and cookies)

PROTEINS

- Essential for body growth and repair of body cells
- Especially important for athletes (need protein for recovery after work outs and to get stronger)
- Food examples: meat, chicken, fish, eggs, dried beans and nuts
- A diet too low in protein may cause insufficient development of bones and muscles and problems related to skin tone
- Eating large amounts of protein may contribute to weight gain (many foods high in protein are also high in fat, increasing the risk for hypertension, high cholesterol, heart disease, and diabetes)

FATS

- Essential for healthy skin and hair, normal growth and nerve function, for the production of certain hormones, and to allow the body to absorb certain vitamins during digestion
- Body requires a certain amount of fat to: insulate the body, provide energy for muscles, protect internal organs
- Food examples: eggs, cheese, meat, nuts, and chocolate
- Too much fat in the diet can lead to obesity, heart disease, diabetes, hypertension

VITAMINS

- Help regulate body functions (e.g., digestion, growth, metabolism, hormone development, wound healing, nerve function)
- Help the body produce energy
- Food examples – all food groups (examples: Vitamin A & B – green leafy and yellow vegetables; Vitamin C – citrus fruits, Vitamin D – exposure to sunlight)
- Too little vitamins in the diet (vitamin deficiencies) can cause health problems such as scurvy (lack of Vitamin C) and rickets (lack of Vitamin D)

MINERALS

- Important for growth and maintenance of body structures
- Help regulate metabolism
- Found in most foods – vegetables, fruits and grain products are a great source
- Too few minerals in the body can affect all body systems (e.g., iron deficiency – decrease in the number of red blood cells results in low energy, light-headedness; low calcium levels – result in poor development of bones, resulting in brittle bones later in life)

WATER

- Essential to our body because it carries nutrients and oxygen throughout the body, assists in digestion and respiration, and regulates body temperature
- Makes up 50-75% of body weight
- Nearly all foods contain water
- Recommended to drink 8 or more glasses of water per day

PREPARING TO TEACH

1. Photocopy the 6 Key Nutrient Information cards. Optional - Mount cards onto construction paper and laminate for future use.
2. Photocopy the “Amazing Nutrients” recording sheet (one per group – approximately 3-4 students per group).
3. Photocopy the “What I Learned About...” recording sheet (require 3 pages per student – 6 recording sheets).
4. Create “What I Learned About...” booklets. Using a paper cutter or scissors, cut each recording sheet in half. Collate the booklets (6 recording sheets per booklet). Place a construction paper cover around the pages and staple the pages together in the top left-hand corner.

TEACHING THE LESSON

Begin by asking the students:

- **What happens to a car when its fuel tank is on E for empty?**
(it won't run)
- **What does a car need in order to go?**
(fuel)
- **How is our body like a car?**
(we need fuel/gas in the form of food to give us energy)

Explain to the students that like a car, our body needs fuel, too!

Ask: Where do we get fuel for our bodies?

(from the food we eat)

Tell the students that fuel for our body comes from the food that we eat. That's why it is so important to get the right fuel into our bodies. There are six key nutrients in foods and beverages that are important for growth, health, learning, and physical performance.

Ask: Can anyone identify one of these key nutrients?

Record the responses on chart paper. From the list provided, circle the six key nutrients (fats, carbohydrates, vitamins, minerals, water, proteins). Be sure to add any missing nutrients that are not on the list. Tell the students, that they are going to be divided into small groups to conduct research on the six key nutrients.

Divide the students into small groups (approximately 3-4 students per group). Next, explain to the students that they will have to work cooperatively in their group to conduct their research. Each student in the group will be assigned a role.

The roles include:

- Reader – reads the information provided out loud to the group
- Reviewer – highlights the important information given by the Reader
- Recorder – records key facts on the recording chart
- Reporter – shares the information that was recorded with the class

Have the students decide upon their “role” in the group. If students have difficulty deciding upon their role, have them number off from 1-4. All the 1’s can become Readers, 2’s will be Reviewers, 3’s will be Recorders, and 4’s will be reporters.

Distribute the appropriate “Key Nutrient” card to each group, as well as a highlighter and an “Amazing Nutrients” recording sheet.

Once the groups are organized, they may begin. Encourage the Reader to read the information from their “Key Nutrient” card at least twice to their group members. Next, have the Reviewer work with the other group members to highlight the important information on the card. Once all the key information has been highlighted, have the Recorder jot dot the key facts on the “Amazing Nutrients” recording sheet. Note: Remind students that dot jots are not full sentences (e.g., they are not to copy the sentences word for word. They are only to record important words/facts).

After the information has been recorded on the recording sheet have the Reporter read out loud, to his/her group members, the key information recorded. Encourage the Reporter to practice in front of his/her group 3 or 4 times. Ask the fellow group members to provide constructive feedback to the Reporter on his/her reporting skills (e.g., volume, delivery speed, eye contact, etc.).

When all the groups have had an opportunity to conduct their cooperative “Key Nutrient” mini research project, ask the students to return to their desks. Before starting the presentations, tell the students that they will have a task to complete while each Reporter from each group is sharing his/her information about their key nutrient. Distribute one copy of the “What I Learned About...” booklet to each student. Explain to the students that it will be very important for them to listen to each presentation. During each presentation they are required to:

- Print the name of the nutrient being discussed
- Record two interesting facts about the nutrient
- Record at least two food items where this nutrient can be found

Clarify with the students that they will be using one page per presentation. Let the presentations begin!

EXTENDING THE LESSON

Have students take a closer look at the labels on various food boxes. Encourage them to compare the nutrient value of similar products to determine which options are healthier choices.

Gather a number of Nutritional Content menus from various fast food restaurants in your local community. Have the students analyze the nutritional value of their favourite take out meal. Encourage the students to select healthier options, using their knowledge of key nutrients.

Create a “What am I...” riddle book. Have the students give clues to a food, for example: “You can crack me up. I’m white and yellow you see. Fry me or scramble me, I’m a great source of protein. What am I?” (egg) Collate the riddles together in a large book and circulate the book amongst the classroom families.



AMAZING

GROUP MEMBERS: _____

OUR AMAZING NUTRIENT IS: _____

WHAT DOES YOUR NUTRIENT DO FOR YOUR BODY?

- _____
- _____
- _____
- _____

EXAMPLES OF FOOD CONTAINING THIS NUTRIENT:

- _____
- _____
- _____
- _____

WHAT HAPPENS IF YOU HAVE TOO LITTLE OR TOO MUCH OF THIS NUTRIENT?

- _____
- _____
- _____
- _____

NUTRIENTS

WHAT I LEARNED ABOUT: _____

THREE INTERESTING FACTS:

- _____
- _____
- _____

TWO FOOD SOURCES:

- _____
- _____

WHAT I LEARNED ABOUT: _____

THREE INTERESTING FACTS:

- _____
- _____
- _____

TWO FOOD SOURCES:

- _____
- _____

KEY NUTRIENTS

CARBOHYDRATES

There are two types of carbohydrates—simple carbohydrates and complex carbohydrates. Simple carbohydrates are also called “simple sugars” because they include sugars such as glucose, fructose and sucrose. Examples of food containing simple sugars include: candy, soft drinks, cake and cookies. Most simple carbohydrates have little, if any vitamins, minerals, or other important nutrients. Complex carbohydrates are also called “starches”. Examples of food containing starches include grain products such as bread, crackers, rice and pasta, as well as vegetables and fruit.

Carbohydrates provide the major source of energy for the body. When you eat carbohydrates, your body breaks them down into simple sugars which are absorbed into the bloodstream. As the sugar level in your body rises, the pancreas produces insulin. Insulin helps move the sugar from the blood into the cells where it can be used as a source of energy. Foods with complex carbohydrates also provide the body with fibre. Diets rich in fibre are healthy for your colon.

If you have a diet that is low in carbohydrates you may have very little energy, leaving you feeling tired and less alert mentally. On the other hand, eating too many carbohydrates can lead to weight gain. Carbohydrates are turned into energy as the body needs it. Extra carbohydrates are stored in the body as fat. Kids and adults need carbohydrates – the key is finding a balance.

PROTEINS

Proteins are made up of amino acids that the body uses to build, maintain and replace the tissues in your body. Your muscles, organs, and your immune system are made up mostly of protein. When you eat food that contains protein, the digestive juices in your stomach and intestine break down the protein into basic units called amino acids. If you think of protein as being a long necklace, amino acids would be the individual beads on a necklace. There are 22 amino acids that the body requires to stay healthy. 13 of these are produced within the body. The other 9 cannot be made in the body, but you can get them by eating protein-rich foods. These 9 amino acids are called “essential amino acids” because it’s essential that you get them from the food you eat.

There are many different sources of protein. They include: meat, chicken, fish, eggs, dried beans, and nuts. Not every source of protein contains all 9 essential amino acids, therefore it’s important to eat a variety of protein sources throughout the day. The body will take what it needs from each snack/meal.

If you don’t get enough protein from your diet, it may cause poor development of bones and muscles, and problems related to skin tone. Eating large amounts of protein may result in weight gain because many foods high in protein are also high in fat. You can figure out how much protein you need if you know how much you weigh. Every day, kids need to eat about 0.5 grams of protein for every pound (0.5 kilogram) they weigh. For example, a 70 pound (32 kilogram) child should eat about 35 grams of protein each day.

FATS

Fats are compounds that are found in food. There are three major types of fats – unsaturated fats, saturated fats, and trans fats. Unsaturated fats are found in plant foods and fish (e.g., olive oil, peanut oil, tuna, salmon). Saturated fats are found in meat and other animal products such as butter, cheese, and milk (except

skim milk). Saturated fats are also found in many baked goods. Eating too much saturated fat can raise blood cholesterol levels and increase your risk of heart disease. Trans-fat are found in margarine and in many snack foods, baked goods, and fried foods. Transfats can also raise cholesterol levels and increase your risk of heart disease.

Fats are essential for healthy skin and hair, normal growth and nerve function, for the production of certain hormones, for enabling the body to absorb certain vitamins during digestion, and for helping to fuel the body. Fats also insulate the body against the cold, provide a layer of padding between skin and muscles, and protect internal organs.

Too much fat in your diet can contribute to many health problems including obesity, heart disease, diabetes, and hypertension. Too little fat, especially in infant and toddler diets, can affect the development of the brain and nervous system. Fats are an important part of a diet. It is, however, important to choose the right amount and right kind of fat. Try to get fat from lean meats, fish, and heart-healthy oils.

VITAMINS

Vitamins are compounds found in the food we eat. They help the body produce energy and they help regulate body processes such as: digestion, growth, metabolism, hormone development, healing of wounds, and nerve function.

Vitamins are found in all food groups. Here’s a closer look at some of the important Vitamins.

Vitamin A – plays a really big part in eyesight (helps for night vision and helps you see in colour). Foods rich in Vitamin A include: milk, liver, orange fruits and vegetables and dark leafy vegetables.

Vitamin B – important in metabolism and in the making of red blood cells which carry oxygen throughout your body. Foods rich in Vitamin B include: whole grains, fish, poultry and meats, dairy products, leafy green vegetables, peas and beans.

Vitamin C – important in keeping body tissues in good shape, and in helping your body resist infection. Foods rich in Vitamin C include: citrus fruits (e.g., oranges), cantaloupe, strawberries, tomatoes, broccoli, cabbage, kiwi and sweet red peppers.

Vitamin D – is the vitamin needed for strong bones and teeth. It helps the body absorb the amount of calcium it needs. Foods rich in Vitamin D include: enriched milk, fish, egg yolks, liver and fortified cereal. You can also get Vitamin D through exposure to sunlight.

Vitamin E – protects your cells and tissue from damage and is important for the health of red blood cells. Foods rich in Vitamin E include: whole grains, wheat germ, leafy green vegetables, vegetable oils (sunflower, canola, and olive), egg yolks, nuts and seeds.

Vitamin K – helps the blood “clot” when you have a cut. Clotting is when certain cells in your body act like glue and stick together at the surface to help stop the bleeding (eventually becomes a “scab”). Foods rich in Vitamin K include: leafy green vegetables, dairy products, broccoli, and soybean oil.

Bodies that do not get enough of the essential vitamins are called “vitamin deficient”. This can result in poor regulation of internal body processes, the body not being able to produce high levels of energy, and in some cases, diseases such as scurvy (lack of Vitamin C), beriberi (lack of Vitamin B) and rickets (lack of Vitamin D).

MINERALS

Minerals are found in almost all foods. Like vitamins, minerals help your body grow, develop, and stay healthy. The body uses minerals to perform a number of special functions such as building strong bones and transmitting nerve impulses. Minerals are also used to make hormones and maintain a normal heartbeat.

Common minerals are calcium, sodium, potassium, iron, iodine, and zinc. Calcium helps build strong bones and healthy teeth. Foods rich in calcium are: dairy products, canned salmon and sardines with bones, leafy green vegetables, calcium-fortified foods (such as orange juice).

Potassium keeps your muscles and nervous system working properly by making sure the amount of water in your blood, body tissues is just right. Foods rich in potassium include: bananas, broccoli, tomatoes, potatoes with their skin, leafy green vegetables, citrus fruits, dried fruits, and legumes.

The body needs iron to transport oxygen from the lungs to the rest of your body. Iron helps in the formation of haemoglobin (the part of the red blood cell that carries the oxygen). Foods rich in iron include: red meat, tuna and salmon, eggs, beans, leafy green vegetables, whole and enriched grains, baked potatoes with the skin, and dried fruits.

Zinc helps your body fight off illnesses and infection. It also helps with cell growth and helps heal cuts. Foods rich in zinc include: beef, pork, lamb, legumes (such as beans, peas, lentils, and peanuts).

Having too few minerals in your body can affect all body systems including the skeletal, cardiovascular, respiratory, and reproductive systems. Iron deficiency can result in a lack of energy (due to a decrease in the number of red blood cells carrying oxygen to the body). Bodies lacking calcium can result in poor development of bones and brittle bones later in life.

WATER

All living things need water to survive. The body can’t live for more than a few days without it. Water makes up 50-75% of your body weight.

Water helps the body perform a number of important jobs. Your blood contains a lot of water. Blood is responsible for carry oxygen to all the cells in your body in order to survive. Water is also in “lymph”, a fluid that is part of your immune system, which helps fight off infection and illness. You also need water to digest your food and get rid of waste. Water also helps regulate body temperature. Each cell in the human body depends on water to function normally.

Nearly all foods contain water, some up to 90% water. Beverages, fruit and vegetables are all sources of water. Since the body loses about 1 quart of water each day, it is important to replace body fluids. Experts recommend drinking 6-8 glasses of water daily.

The body will hold onto water if you don’t have enough, or get rid of it if you have too much. Looking at the colour of your urine can tell you a lot. If your urine is very light yellow, your body might be getting rid of excess water. If your urine is very dark yellow, your body is holding on to water because you don’t have enough. If you do not drink enough water the body becomes dehydrated. Dehydration can affect many systems in the body. Be sure to stay hydrated during physical activities by keeping a water bottle close by. Be sure to drink when you are thirsty and on hot days. Drinking too much water causes few problems.



GRADE 4

LESSON 2

ON A MISSION

PROMOTING HEALTHIER FOOD CHOICES

LESSON OVERVIEW

Students will work in cooperative group to solve a “food choice” dilemma. They will identify the dilemma, brainstorm possible alternatives, identify the pros and cons of each alternative, and make a decision. Finally, they will present their dilemma using a dramatic presentation.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2 – Describe choices they can make for healthy eating, based on Canada’s Food Guide to Healthy Eating

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BACKGROUND INFORMATION

Dilemma Definition:

A situation in which a difficult choice has to be made between two or more alternatives; A difficult situation or problem.

MATERIALS REQUIRED

- 4 Dilemma Scenarios (included)
- Solving the Dilemma planner (included)
- Pencil
- Eraser

PREPARING TO TEACH

1. Photocopy the 4 dilemma scenarios.
(Optional – mount the dilemma scenarios on construction paper and laminate for future use).
2. Photocopy “Solving the Dilemma planner”
(one per group of 4-6 students).
3. Divide the students into small cooperative groups of 4-6 students, prior to the activity.

TEACHING THE LESSON

Explain to the students that you are going to divide them into groups. For this activity, they will be working cooperatively with their group to solve a dilemma.

Ask: Who can define the word dilemma?

Listen to the students suggestions. Tell the students a dilemma is when someone is faced with a difficult choice between two or more alternatives.

Divide the students into their small cooperative groups. Give each group a copy of their dilemma. Ask the group to select one person to read the dilemma out loud to their group members. Then, ask the group to select a different reader to read the dilemma a second time.

Next, hand out the “Solving the Dilemma planner” to each group (one planner per group). Tell the students that this plan is going to help the group guide their thinking to come up with the best possible solution or choice to their problem. Review the planner together.

Part 1 – IDENTIFYING THE DILEMMA – As a group, students are to identify the dilemma (what decision/problem have they been faced with)?

Part 2 – IDENTIFYING ALTERNATIVES/CHOICES – As a group, students are to suggest a number of alternatives or choices they have to solve their dilemma. It is important for students to recognize at this stage, they are just brainstorming alternatives, not evaluating the choices.

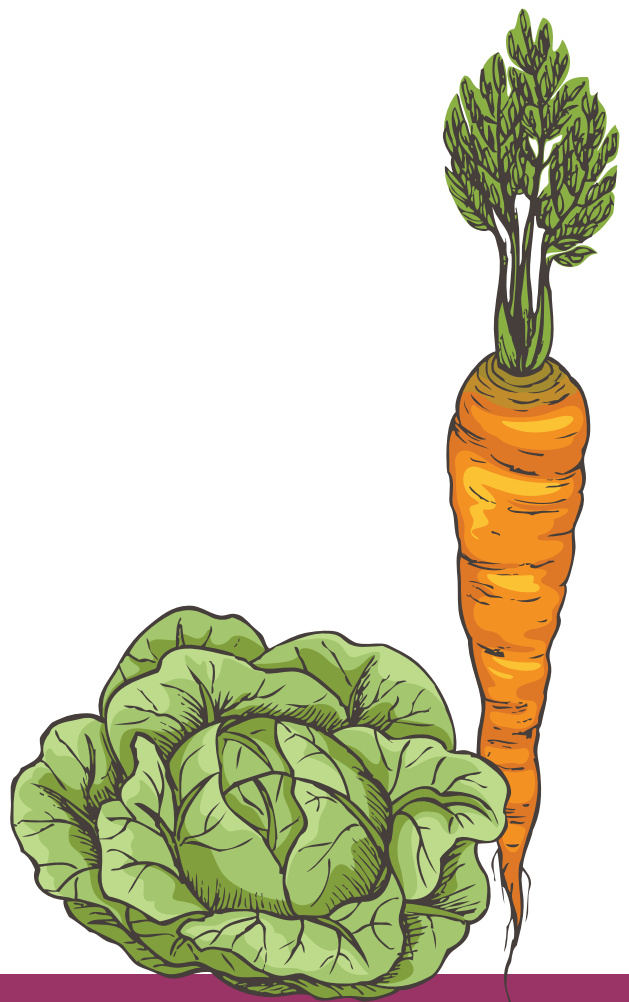
Part 3 – EVALUATING THE ALTERNATIVES/CHOICES – Students will discuss and record the pros and cons of each alternative. Encourage the students to record as many pros and cons possible.

Part 4 – MAKING A DECISION – Students will review the pros and cons of each alternative and select one alternative. This decision does not have to be unanimous but it must represent the majority.

Part 5 – PRESENTING THE DILEMMA – Encourage students to find a creative way to present their dilemma. Their presentation should introduce the dilemma, identify the alternatives (as well as the pros and cons of each alternative), and reveal the decision. (Note: You may wish to brainstorm a list of presentation suggestions - e.g., role playing, acting on the dilemma pretending to be characters on a television show, a host and “models” on a “guide to making decisions” video, etc.).

FOLLOW-UP ACTIVITY

The students will cooperatively complete their “Solving the Dilemma Planner”. The students may wish to select one Recorder for the entire activity, or have each student be responsible for being the Recorder for one of the 5 parts outlined in the Planner.



EXTENDING THE LESSON

Have the students share their dilemma presentations with other classes in your grade or division. Encourage the students to share how they worked through the decision making process to come up with their final decision.

Let the students get creative! Working independently or in partners, have the students write their own dilemmas based on the topic of Healthy Eating/ Healthy Choices. Collect the dilemmas and read them over for edits or clarifications required. In small cooperative groups, have the students work through student-generated problems using the "Solving the Dilemma Planner".

In a community circle, have the students share "Healthy Food Choice" dilemmas they have experienced. What decision did they make and why did they make that decision. Discuss what alternatives they may have tried in order to select a healthy alternative. Discuss the effects of peer pressure on making healthy food choices, as well as what they can say or do when faced with a difficult decision. Record these responses on chart paper and post them in a visible spot in the classroom.



DILEMMA #1 AT THE HOCKEY GAME

You are so excited to be heading to your first hockey game. You enter the arena and the smell of hotdogs, greasy fries, and loaded nachos overwhelms you. You haven't had dinner yet and your stomach is growling! You know you should try to eat something but the fast-food aroma takes over your senses. What should you do?

DILEMMA #2 LET'S GO CAMPING

You're heading away camping with your family for the weekend. Your mom has called a family meeting to sit down and discuss your camping menu so that she can shop for supplies. Images of hot dogs, chocolate marshmallow s'mores and potato chips fill your mind. You know it's important to eat healthy, but it's camping! What should you do?

DILEMMA #3 MMM...DINNER...EATING OUT

It's Friday night and your family has decided to head out for dinner. No preparation, no mess, no clean up! You open your menu and look at the pages of mouth-watering options. You know you should try to eat healthy but the deep fried fish and chips look really good. What should you do?

DILEMMA #4 AFTER SCHOOL SNACK

You've been invited over to a friend's house after school. He opens the cupboard and the refrigerator and asks you what you want. The options are endless....cookies, brownies, crackers, cheese, pizza pops, fruit, juice, etc. What do you tell your friend that you would like?

SOLVING THE DILEMMA PLANNER

GROUP MEMBERS: _____

PART 1 – IDENTIFY THE DILEMMA:

PART 2 – IDENTIFY THE ALTERNATIVES:

Alternative # 1:

Alternative # 2:

Alternative #3:

PART #3 – EVALUATE THE ALTERNATIVES:

	PROS	CONS
ALTERNATIVE #1		
ALTERNATIVE #2		
ALTERNATIVE #3		

PART #4 – MAKE THE DECISION:

PART #5 – PRESENTING THE DILEMMA:

THEME: _____

CHARACTERS INVOLVED:

ROUGH PLOT OUTLINE:

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

LIST OF SIMPLE PROPS REQUIRED:

- _____
- _____
- _____
- _____

GRADE 4

LESSON 3

POTATO EXPLORATION

LESSON OVERVIEW

Students will learn about the different varieties of potatoes, and have the opportunity to create a poster outlining the healthy aspects of potatoes, and create their own short story to re-create the invention of potato chips.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe choices they can make for healthy eating, based on Canada's Food Guide to Healthy Eating

MATERIALS REQUIRED

- Variety of local potatoes (if possible)
- Poster paper
- Crayons/coloured pencils
- The Enormous Potato book (included)

BACKGROUND INFORMATION

Potato Types

There are more than 100 varieties of potatoes. Each of these varieties fit into one of seven potato type categories: russet, red, white, yellow, blue/purple, fingerling and petite.

Russet Potatoes

Russets are ideal for light and fluffy mashed potatoes. They also fry up crisp and golden brown, and they are the potato of choice for baking. The delicate flavour and fluffy texture of baked russets go well with all kinds of toppings.

Red Potatoes

Because of their waxy texture, the flesh of red potatoes stays firm throughout the cooking process, whether they are being roasted or cooked in a stew. Their thin yet vibrant red skin adds appealing colour and texture to side dishes and salads. Reds are frequently used to make tender yet firm potato salad or add pizzazz to soups and stews, as well as being served baked or mashed. Round reds are often referred to as "new potatoes," but the term "new" technically refers to any type of potato that is harvested before reaching maturity.

White Potatoes

White potatoes hold their shape well after cooking. Their delicate, thin skins add just the right amount of texture to a velvety mashed potato dish without the need for peeling. Grilling whites brings out a more full-bodied flavour.



Yellow Potatoes

Grilling gives yellow potatoes a crispy skin that enhances the dense flesh, creating a slightly sweet caramelized flavour. The creamy texture and golden colour of yellow potatoes mean you can use less or no butter for lighter, healthier dishes. The naturally smooth and buttery texture also lends itself well to lighter versions of baked, roasted or mashed potatoes.

Purple/Blue Potatoes

Most blue/purple potatoes have moist, firm flesh that retains its shape while adding rich, vibrant colour and luscious taste to salads. The purple colour is preserved best by microwaving, but steaming and baking are also great ways to cook blue/purple potatoes.

Fingerling Potatoes

Fingerling colour and shape are a welcome visual addition to any dish. Pan-frying and roasting enhance their robust flavour and showcase their wonderful nutty or buttery tastes.

Petite Potatoes

These small, bite-sized potatoes are actually a grade standard based upon size ("C-size" and smaller, often times referred to as pearls or marble-size). They are the same skin and flesh colour as their larger-sized cousins, as well as the shape, texture and sugar content. Their flavour profile is similar but with a more concentrated flavour to their larger-sized cousins.

Source: <http://www.potatogoodness.com/all-about-potatoes/potato-types/>

George Crum: Inventor of Potato Chips

The potato chip was invented in 1853 by George Crum. Crum was a Native American/African American chef at the Moon Lake Lodge resort in Saratoga Springs, New York, USA. French fries were popular at the restaurant and one day a diner complained that the fries were too thick. Although Crum made a thinner batch, the customer was still unsatisfied. Crum finally made fries that were too thin to eat with a fork, hoping to annoy the extremely fussy customer. The customer, surprisingly enough, was happy - and potato chips were invented!

Crum's chips were originally called Saratoga Chips and potato crunches. They were soon packaged and sold in New England - Crum later opened his own restaurant.

William Tappendon manufactured and marketed the chips in Cleveland, Ohio, in 1895. In the 1920s, the salesman Herman Lay sold potato chips to the southern USA (selling the chips from the trunk of his car). In 1926, Laura Scudder (who owned a potato chip factory in Monterey Park, California) invented a wax paper potato chip bag to keep the chips fresh and crunchy - this made potato chips even more popular.



TEACHING THE LESSON

1. Vegetable Exploration

- Show students different varieties of potatoes. Ask them to compare the differences. Can students count how many eyes are on their potato? Discuss what happens at the “eye” of the potato (a stem forms)
- Ask students to brainstorm all of the foods they know that are made from potatoes. One of the special things about potatoes is how many different foods we can make with them—from chips to crackers to bread!

2. Potato poster

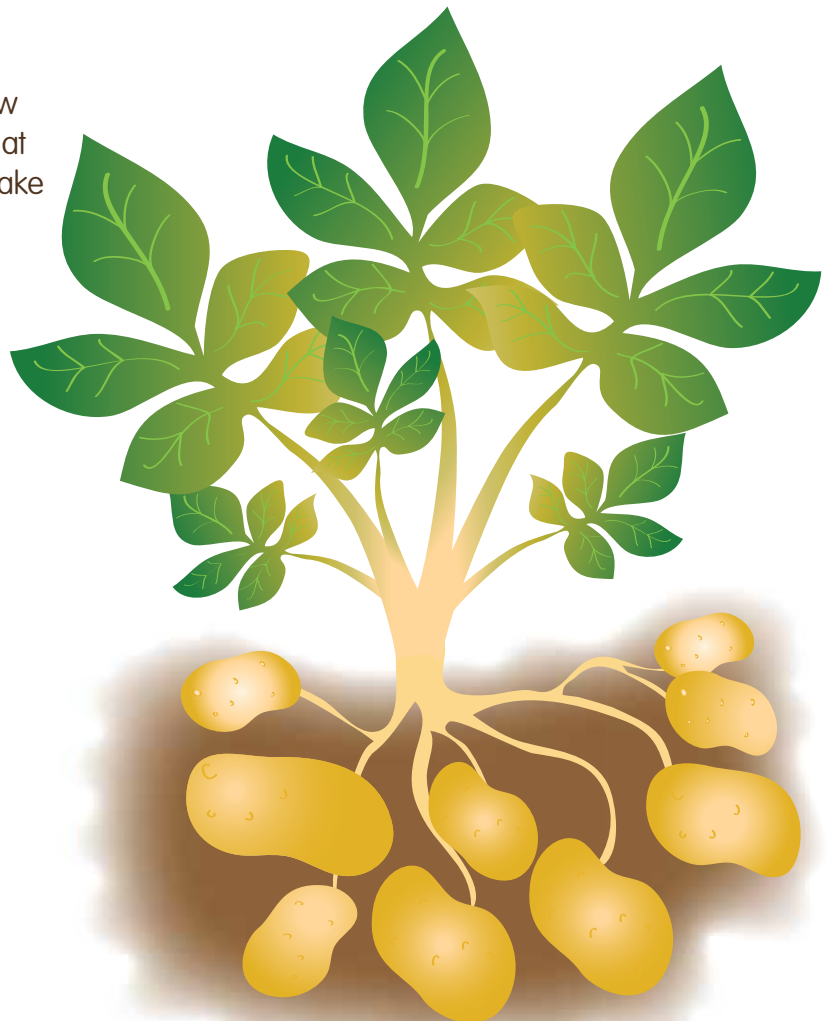
- Potatoes have a bad reputation because they are used to make potato chips and French fries. Potatoes themselves are actually very healthy (but we have to be careful how we cook them and what we put on them). Ask students to make a collage poster about all the positive aspects about potatoes.

3. Where did potato chips come from?

- Students will write creative stories detailing how the potato chip might have been invented. What changes could you make to potato chips to make them healthier/better for us?

4. Read the Enormous Potato book

Source: <http://growing-minds.org/documents/potato-exploration.pdf>







GRADE 5

LESSON 1

Half your plate: Eat This!

LESSON 2

Power of fruits and vegetables

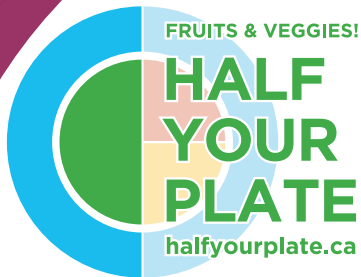
LESSON 3

Cabbage exploration



GRADE 5

LESSON 1



HALF YOUR PLATE: EAT THIS!

MATERIALS REQUIRED

- Copies of Canada's Food Guide (provided)
- Internet access to show students **Half Your Plate Website**
- White board or chalk board to record beliefs and challenges
- Reasons and Messages worksheet
- Access to computer lab or tablets for student research (otherwise, prepare library resources for students to use)
- Research worksheet
- Create an Ad worksheet - two per group (in case group research is divided amongst group members)
- Collection of food magazines or grocery store flyers for students to make poster board to pitch their product

LESSON OVERVIEW

This lesson asks students to imagine they are a marketing agency who must develop an ad for a fruit or vegetable. Using the Big 6 media questions, the students will research their 'product' on the Half Your Plate website and develop an ad highlighting its benefits, featured recipes, and how it contributes to a healthy diet.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe strategies for contributing to a healthy balanced lifestyle, including healthy eating, integrating regular physical activity and maintaining emotional health.

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PREPARING TO TEACH

1. Explore the **Half Your Plate website** (halfyourplate.ca) to learn about how your students can incorporate fruits and vegetables into their diets. Pay particular attention to the **Fruits and Veggies from A to Z and Recipes sections**.
2. Photocopy or print the **Reasons and Messages, Research, Make an Ad worksheets** (one copy of each per group – two if you will be subdividing the groups).
3. Collect food related magazines and grocery store flyers for students to use for their poster boards.

TEACHING THE LESSON

Begin the lesson by introducing students to the **Half Your Plate program**. Using the smartboard or a computer with an internet connection and a projector, show students the website and some of the information they can find there, especially the sections on **Fruits and Veggies from A to Z, and Recipes**.

Explain to students that many people do not eat enough fruits and vegetables in their diet.

Ask: How can we find out if people are eating the right amount of fruits and vegetables?

Students should come up with some ideas about how this information could be gathered. The simplest way would likely be to run a survey and ask people how much or how often they eat different kinds of foods and then compare the results to what is recommended.

Ask: How many servings of fruits and vegetables does Canada's Food Guide recommend for young people your age?

If the students are not familiar with the recommended servings from **Canada's Food Guide**, you should spend some time reviewing the information in the guide. Keep copies of the guide on hand for the students to reference.

Explain that one of the challenges with eating the right amount of fruits and vegetables is that people are often unsure of how much they should eat

and how much food equals one serving. In order to help people better understand how many fruits and vegetables they should eat, the **Canadian Produce Marketing Association** developed the **Half Your Plate program: An easy way to ensure that you are getting enough fruits and vegetables is to make half your plate – or half of what you eat – fruits and veggies**.

Next, make a basic two column chart on the white or black board. One column should be titled '**BELIEFS**' and the other '**CHALLENGES**'. Facilitate a discussion with students about their beliefs or attitudes about fruits and vegetables, followed by the challenges people face with respect to eating fruits and vegetables.

Ask: What are some common beliefs and attitudes about fruits and vegetables? When you hear the words fruits and vegetables, what do you think of? How do those words make you feel? How do young people your age usually feel about fruits and vegetables?

Expect to get a wide range of responses. There will likely be positive responses (*e.g., fruits and vegetables are healthy, I enjoy eating these fruits and vegetables but not these others, etc.*) and negative responses (*e.g., some kids don't like to eat fruits and vegetables because they think they don't taste good, etc.*).

Encourage the students to be as honest as possible with their answers and tell them that the purpose is not to be judgmental but to get as much information about what young people think about fruits and vegetables as possible. Write all of the responses in the '**BELIEFS**' column in point form.

Next ask the students about some of the '**CHALLENGES**' to eating the right amount of fruits and vegetables.

Ask: What makes eating fruits and vegetables difficult for some people? What are some reasons why young people don't eat enough fruits and vegetables?

Again, the responses should be fairly wide-ranging, including affordability, time for preparation, taste, etc. As with the **'BELIEFS'** discussion, the purpose is to better understand what might prevent people from eating enough fruits and vegetables, so encourage the students to be honest and to think critically. Write all response in the **'CHALLENGES'** column in point form.

Explain that if people have negative attitudes about certain fruits or vegetables, or fruits and vegetables in general, then they are unlikely to make an effort to incorporate them into their diet.

Discuss the implications of this with the class.

Explain that even if people have positive images of fruits and vegetables, there are still other reasons why they may not eat enough of them. For example: they don't have access to fruits and vegetables, they have limited budget to purchase them, or they could be children whose parents don't purchase fruits and vegetables for them to eat. Discuss the implications of this, referring to the challenges that the students identified.

Ask: Now that we have identified some common beliefs and challenges to eating fruits and vegetables, how could we convince people to eat more of them?

Lead a discussion with the class on how they could overcome the negative beliefs and challenges related to fruits and vegetables in order to convince people that they need to eat more of them. What are some of the main reasons to eat fruits and vegetables and what are some of the key messages they would tell people in order to convince them to eat more? Refer to the Half Your Plate discussion at the beginning of the class. One way to convince people to eat more fruits and veggies is to make it easier for them to remember how much they should be eating. For example, **'half your plate should be fruits and vegetables'** is easier to remember than the number of servings you are supposed to eat.

Next, break students into groups of 3-4. Distribute the **'REASONS'** and **'MESSAGES'** worksheet (one per group). On the sheet, the groups should think about the **top 3 reasons to eat fruits and vegetables and the top 3 messages to tell people in order to make them want to eat fruits and vegetables.**

Explain what is meant by 'reasons' and 'messages'. A reason to eat fruits and vegetables is that they are healthy. The message is how that information is communicated to the audience. For example, if you want convey to people that eating vegetables is healthy, how would you present that information so that people will believe it and want to eat more fruit and vegetables?

Demonstrate with an example on the white or blackboard.

Give students about **10-15 minutes** to work on this task in their small groups. Circulate amongst the groups to answer any questions and to guide students through the task.

Once the task is complete, have each group choose a fruit or vegetable that they think has a 'bad image' amongst young people their age. It could be one that no one in the group particularly likes, or perhaps they haven't tried it because they think they won't like it. It could also be one that some of them actually do like but doesn't have a very good image amongst most young people their age.

Once each group has selected their fruit or vegetable, explain that their task as a group is to gather information about that fruit or vegetable that they can use to improve its image and make people want to eat it more often. After they have completed their research, they will use the information to develop an advertisement with important messages about the fruit or vegetable, trying to convince young people to eat more of it.

The information that the groups should gather includes:

- A description of the fruit or vegetable
- Its main health benefits
- Some delicious recipes or preparations using the fruit or vegetable
- Some images of the fruit or vegetable, either in its fresh form or in a dish, that make the fruit or vegetable look more appealing

Using the **Half Your Plate website (halfyourplate.ca)** as a starting point for their research, the groups should spend about 30 minutes to 1 hour gathering all the information they will need to complete the task. In order to make the research more efficient, and if enough computers are available, have the groups divide the work amongst the group members. For example, two of the students in a group could research the fruit or vegetable and its health benefits while the other members research recipes and images. If this approach is taken, the group should reconvene and share the information that they gathered to make sure they are all in agreement.

Circulate amongst the groups as they conduct their research to ensure that they are staying on task and using the internet appropriately. You may also field any questions and offer suggestions to the students.

Once the groups have completed the research, review the **Big 6 media questions:**

- Who is the author or sponsor?
- Who is the audience?
- What is the purpose?
- What is the message?
- What information is missing?
- What techniques are used to attract your attention?

Explain that we use the Big 6 media questions to critically evaluate advertisements. However, by **thinking about the theme or point of each question and adapting them, we can use them to develop our own advertisements.** Distribute the **Create an Ad worksheet** and review the questions with the class.

The students will now work in their groups to develop a concept for an advertisement to promote their chosen fruit or vegetable. The advertisement could be print, television, radio, or online. Encourage students to choose a medium that is appropriate to the audience they are trying to reach. Their goal is to change any negative perceptions about the fruit or vegetable, suggest ways to overcome any challenges associated with its consumption, and to convince young people to eat more of it.

If students are having difficulty thinking of a concept for their ad, ask them to think about some popular ads that they have seen recently. What tactics did the advertisers use to try to convince people to buy the product? How did they appeal to their audience? What information did they choose to share or not share? What is the key message and why is appealing to the audience?

Finally, have each group appoint a spokesperson and have them share with the class a brief description of their ad concept and why they think it will work. Ask questions to elicit key information about the students' thinking.



FOLLOW-UP ACTIVITY

Have students work in their groups to develop a sample poster board to 'pitch' the product to the rest of their class. They will have **1 minute to 'pitch' their product**, using the poster board as a visual reference. Following each presentation, ask questions about the rationale behind the ad. Give the other students a chance to respond and provide feedback to their peers about whether they found the ad convincing and if they think it would work to make young people want to eat more of that fruit or vegetable.

EXTENDING THE LESSON

Coordinate the timing of this lesson so that it is done at the same time as another Grade 5 class in the school. After the ads and pitches are ready, have the classes join up and 'pitch' their ads to each other. Facilitate a discussion with your teaching colleague about strategies for convincing young people to eat more fruits and vegetables. What messages do the students think would work with young people? What medium should be used? How can their parents and guardians be convinced that eating more fruits and vegetables is both healthy and easy to do?



REASONS AND MESSAGES

When thinking about how to communicate key messages to your audience about your fruit or vegetable, you should identify the main reasons why someone would want to eat that fruit or vegetable and then describe how you would communicate that reason to your audience. Write your top three reasons in the left column and then describe your communication strategy or message in the right column.

FRUIT OR VEGETABLE: _____

REASONS	MESSAGES
1.	1.
2.	2.
3.	3.

RESEARCH WORKSHEET

Use this sheet to record information your group gathers from the research. Appoint one or two note takers to record the information.

- 1. DESCRIBE YOUR FRUIT OR VEGETABLE. WHAT DOES IT LOOK AND TASTE LIKE? WHERE DOES IT COME FROM? HOW IS IT GROWN? WHERE CAN YOU GET IT?**
- 2. WHAT ARE THE MAIN HEALTH BENEFITS OF YOUR FRUIT OR VEGETABLE? WHY IS IT IMPORTANT THAT PEOPLE EAT IT?**
- 3. WHAT OTHER BENEFITS ARE ASSOCIATED WITH THIS FRUIT OR VEGETABLE? IS IT EASY TO ACCESS? IS IT AFFORDABLE? DOES IT HAVE A LONG STORAGE LIFE? IS IT EASY TO PREPARE OR COOK?**
- 4. WHAT ARE SOME GREAT PREPARATIONS OR RECIPES OF THIS FRUIT OR VEGETABLE THAT PEOPLE WOULD FIND APPEALING AND WOULD WANT TO EAT? FIND SOME IMAGES OF THESE PREPARATIONS OR RECIPES TO PRINT OR CUT OUT OF MAGAZINES OR OTHER ADVERTISEMENTS.**

CREATE AN AD WORKSHEET

Your task is to work as a group to create an advertisement to convince young people to eat more of your chosen fruit or vegetable. You may need to address any negative beliefs or challenges that people associate with the fruit or vegetable and present it in a more positive light. Imagine that your group is an ad agency and you have a client that wants you to develop this ad. Consider the following questions in order to develop your strategy for the ad.

WHO IS THE SPONSOR OF YOUR AD? WHAT ARE THEIR OBJECTIVES

WHO IS THE AUDIENCE FOR THE AD? WHAT DO YOU KNOW ABOUT THEM? WHAT BELIEFS AND PERCEIVED CHALLENGES DO THEY ASSOCIATE WITH THIS PRODUCT?

WHAT IS THE PURPOSE OF YOUR AD? WHAT DO YOU WANT TO ACCOMPLISH?

WHAT IS THE MESSAGE YOUR SPONSOR WANTS TO CONVEY? IS IT THE RIGHT MESSAGE? WHAT MESSAGE DO YOU THINK SHOULD BE CONVEYED?

WHAT INFORMATION DO YOU THINK SHOULD BE OMITTED (LEFT OUT) FROM THE AD? WHY DO YOU WANT TO OMIT THIS INFORMATION?

WHAT STRATEGIES WILL YOU USE TO CONVINCING YOUR AUDIENCE THAT THEY SHOULD BUY AND EAT THIS FRUIT OR VEGETABLE?

DESCRIBE YOUR GROUP'S CONCEPT FOR THE AD. WHAT IS YOUR PLAN? HOW WILL YOU PRESENT THE INFORMATION AND WHAT STRATEGIES WILL YOU USE?

GRADE 5

LESSON 2



BOOST IT UP!

THE POWER OF FRUITS AND VEGGIES

MATERIALS REQUIRED

- Chart paper
- Markers
- Large construction paper or Bristol board
- Pencils
- Erasers
- Markers
- 8 ½ x 11 paper (for rough draft)

LESSON OVERVIEW

Students will look at creative ways to boost their intake of fruits and vegetables in order to meet the 4-8 servings of fruits and vegetables per day recommended by Canada's Food Guide. They will "market" their Boost It Up campaign by designing posters for display in the school.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe strategies for contributing to a healthy balanced lifestyle, including healthy eating, integrating regular physical activity and maintaining emotional health.

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BACKGROUND INFORMATION

- Canada's Food Guide recommends children and youth eat 4-8 servings of fruits and vegetables every day
- A serving of a vegetable or fruit is equal to:
 - 1 medium fresh vegetable or fruit
 - ½ cup raw or cooked vegetables or fruits
 - 1 cup of vegetable salad
 - ¼ cup of dried fruit
 - ½ cup of 100% pure vegetable or fruit juice
- Eating a healthy diet including fruits and vegetables can reduce the risk of heart disease, cancer and stroke, as well as maintain a healthy body weight and body image
- At least half your plate at each meal should be vegetables and fruit

PREPARING TO TEACH

1. Divide the students into small groups (3 or 4 students per group).
2. Provide each group with a piece of chart paper and a marker.
3. During the lesson, students will create a list of criteria for evaluating their poster. Record this criteria on the blank rubric provided. Once the rubric has been completed, photocopy the rubric (one per student) to be used for assessment of the poster.

TEACHING THE LESSON

Begin by asking the students:

- **How many servings of fruits and vegetables are you supposed to eat every day according to Canada's Food Guide?**
- **What are some of the benefits of diet rich in a variety of fruits and vegetables?**

Be sure to highlight the following:

- **Eating a diet rich in fruits and vegetables can reduce the risk of heart disease, cancer, and stroke**
- **Fruits and vegetables are loaded with vitamins and minerals**

- **Most fruits and vegetables are naturally low in calories**
- **Fruits and vegetables provide fibre which is great for a healthy digestive tract**
- **Eating fruits and vegetables can help maintain a healthy body weight**

Now that the students are familiar with all the benefits of a diet rich in fruits and vegetables tell them that you need their help. Explain that many students do not eat the daily required number of servings of fruits and vegetables. As a result, you are giving them a challenge. You would like them to head up a campaign called "Boost It Up". As a class, you are going to work together to find new and creative ways to promote the consumption of fruits and vegetables.

Divide the students into small cooperative groups (approximately 3-4 students per group). Give each group a piece of chart paper and a marker. Explain to the students that it is their task to brainstorm as many creative ways possible to boost the daily consumption of fruits and vegetables of students. You may wish to provide them with a couple of examples to get them started. For example:

- **Add sliced fruit to your breakfast cereal every morning**
- **Cut fruits and vegetables into cool shapes**
- **Keep a bowl of washed fresh fruit on the kitchen table**
- **Try one new vegetable or fruit each week**

Provide the students with ample time to brainstorm a list of creative suggestions. Remind students that suggestions can include: shopping tips, cooking tips, snack tips, lunch tips, and more!

Once the students have completed their list, have each group present their ideas to the class. Commend the students on their creativity and cooperative work skills.

Next, tell the students that their next job in their campaign is to spread the word about the benefits of eating fruits and vegetables. You would like each student to create their own poster that promotes one of the “tips” presented to the class. (Note: You may decide if they have to present one of their own tips, or if they are free to select any of the tips shared). Take a few moments to discuss the elements of an effective poster. Ask:

- **What are some important criteria that you must consider when creating your poster.**

Some suggestions include:

- **Is the message you are trying to convey clear?**
- **Does your poster have visual impact?**
(use of colour, lettering, pictures)
- **Is the poster neat and easy to read?**
- **Is the information accurate?**
- **Is your work free of spelling and grammatical errors?**

Using chart paper, record a list of criteria. Tell the students that their poster will be evaluated based on the criteria they have developed together. Review the criteria, so that students have a clear understanding of the expectations. Post the criteria in a highly visible location in the classroom.

Next, distribute a piece of 8 ½ x 11 paper.

Review the task with the students:

- **Select one “tip” that will be the focus of your poster**
- **Identify what message you wish to convey**
- **Use the small piece of paper to create a rough draft of your poster**
- **Review the list of criteria. Be sure to check that your poster meets the requirements**
- **Submit the rough draft for approval**
- **Commence your good copy on a large piece of construction paper or Bristol board**

Upon completion of the poster, encourage the students to review the criteria list before submitting their final product.

FOLLOW-UP ACTIVITY

Have the students sketch a rough draft over their “Boost It Up” poster. Once their rough draft has been reviewed and approved, have them complete their good copy on a large piece of construction paper or bristol board. Remind the students to refer to the “Poster Criteria” when completing their good copy.

EXTENDING THE LESSON

Have the students act as ambassadors for the “Boost It Up” campaign. Arrange times for small groups of students to visit classrooms in the school to discuss the importance of fruits and vegetables in a healthy diet. They can also share some creative tips to the students on ways to boost their fruit and vegetable intake.

If possible, provide a link on your school website to the Grade 5 “Boost It Up!” campaign. Have students work on the website page, including important details such as: the benefits of healthy eating, the required number of fruit and vegetable servings for youth and adults based on Canada’s Food Guide, tips to boost daily fruit and vegetable intake, links to sites that promote Healthy Eating.

Have the students evaluate the nutritional value of food offered in the school cafeteria or special lunch programs. Do the foods offered support a healthy diet? If not, what can be done to offer healthier selections? Encourage the students to campaign to the administration or School Council to make changes.

RUBRIC

SAMPLE RUBRIC TEMPLATE

"Boost It Up" Poster Evaluation	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Criteria #1					
Criteria #2					
Criteria #3					
Criteria #4					
Criteria #5					

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GRADE 5

LESSON 3

CABBAGE EXPLORATION

LESSON OVERVIEW

Students will be introduced to different varieties of cabbage and learn how cabbage grows. Students will use red cabbage to learn about acids and bases.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe strategies for contributing to a healthy balanced lifestyle, including healthy eating, integrating regular physical activity and maintaining emotional health.

MATERIALS REQUIRED

- Red, green, Chinese cabbage
- Magnifying glass (one per student if available)
- 1/2 head of red cabbage
- Large bowl
- Grater
- Cold water
- Strainer
- Plastic container
- Four clear plastic cups
- Baking soda
- Lemon juice, vinegar, milk, fruit juice, and baking soda
- The Giant Cabbage Book (included)

BACKGROUND INFORMATION

Green cabbage is the most widely available and popular variety in Canada. It's also one of the largest; one head yields about 8 cups of shredded cabbage. Green cabbage can vary in colour from light, pale green to dark green and has a very mild flavour. It works well in soups, stews and salads.

Red or purple cabbage is the most striking variety and is distinguishable by its deep crimson colour. Red cabbage can vary in size, from small to quite large. Its flavour is quite mild and very similar to green cabbage. It's a great addition to soups, stews and salads. Its natural colour pigments will turn other foods purple!

Bok choy, also known as Chinese cabbage, has crunchy white stems and green spinach-like leaves and is popular in Asian dishes. Bok choy has a mild, slightly peppery flavour. Very small heads of bok choy are called baby bok choy and are favoured for their tender stalks and leaves. Bok choy is a great addition to salads and stir-fries.



• Chemistry 101

- Acid - The word acid comes from the Latin word for “sour”. Acids usually have a sour taste (think of lemons).
- Bases - These are the opposite of acids. They taste a chalky or bitter and feel soapy or slippery. The cabbage juice has special compounds called anthocyanins that will turn different shades of red when mixed with acids, and different shades of blue when mixed with bases. Ask an adult to help you with this cool experiment.

PREPARING TO TEACH

- Grate the red cabbage into a large bowl and cover with cold water. Let sit for 45 minutes.

TEACHING THE LESSON

1. Vegetable Exploration

Show the students different varieties of cabbage while they are still whole (red, green, Chinese). Look closely: A cabbage is made up of leaves. Peel off one layer of leaves and show students the leaf’s mid rib and veins. Draw a diagram of a leaf on the board and point out the different components of a leaf. Ask students what they think the middle of the cabbage looks like. Is it all one colour or many colours?

2. The Cross Section

Cut the cabbages in half. Pass around the cross sections. What do the students see? How many layers can they count? Explain that cabbage is a series of leaves squeezed and wrapped together.

Give each student one slice of red, one green, and one Asian cabbage. Ask them to look closely at the leaves through their magnifying glass. What do they see? Ask the students to draw or describe their observations.

3. Taste Test

Pass out the pieces of cabbage and ask the students to try one. Ask them to describe how the cabbage tastes and feels in their mouths. Is it soft or crunchy? Ask the students to vote on their favourite cabbage. Ask the students to name different recipes you could make using cabbage.

4. Cabbage Chemistry

- Strain the juice from the shredded red cabbage that was sitting for 45 minutes. Strain into a plastic container
- Pour equal amounts of cabbage juice into the clear plastic cups
- Add 1 teaspoon of baking soda to three cups. The baking soda, which is a base, will turn the cabbage juice blue
- You can test different liquids to see if it will change the cabbage juice back to its original colour. The cup without the baking soda is called the “control” – this is the colour you’re trying to match
- Test your liquids one teaspoon at a time
- If the test liquid turns the colour back to the original, then it is probably an acid
- If the colour remains blue, then it’s probably not an acid

5. Read the Giant Cabbage Book

Sources: <http://growing-minds.org/documents/cabbage-exploration-lesson-plan.pdf>
<http://www.ontario.ca/foodland/page/cabbage>





GRADES 6 + 7

LESSON 1

Where in the world does your food come from?

LESSON 2

Signature salads

LESSON 3

Veggie knowledge



GRADE 6 + 7

LESSON 1

WHERE IN THE WORLD DOES YOUR FOOD COME FROM?

LESSON OVERVIEW

Students will learn where various fruits and vegetables are grown and the factors (environmental, seasonal, price) that should be considered when making decisions about purchasing fruits and vegetables. Students will learn how far food travels to get to Yukon and what impact food miles have on the environment.

PRESCRIBED LEARNING OUTCOMES: HEALTH

C2. Describe choices they can make for healthy eating, based on Canada's Food Guide to Healthy Eating

MATERIALS REQUIRED

- World map
- Food miles handout (included)
- Food miles worksheet (included)
- Calculating greenhouse gas emissions handout (included)

BACKGROUND INFORMATION

The food we find at our grocery stores in Yukon comes from all over the world. Lemons from Argentina, apples from New Zealand, and lettuce from the United States—our food is more travelled than we are.

A large variety of fruits and vegetables can be grown in Canadian provinces during certain times of year. For example, blueberries grow well during the summer months in many provinces and are available to purchase in August. Blueberries cannot be grown in Canada during the winter, so they are shipped from other places in the world to Canada. Some fruits and vegetables cannot be grown in Canada at any time of the year because of the climate.

Benefits of buying locally grown produce at the grocery store:

- Health benefits (a diet rich in fruits and vegetables is important to maintain a healthy body)
- Good for the environment (cutting back on the number of kilometres food has travelled; avoiding packaging reduces pollution and waste)
- Supports the local economy

Benefits of buying direct from the farmer:

- You know with confidence that the produce you are eating is locally grown
- You are supporting farmers directly
- You are helping the environment by reducing packaging

Benefits of growing your own produce:

- Guaranteed fresh produce
- Growing your own produce allows you to control which substances you apply
- You can make and use your own compost (cuts waste, improves your soil and feeds your plants)

Advantages of buying produce from abroad

- Supply of produce is limited by Canadian weather and climate
- Canada has a limited number of fertile growing regions
- The growing season is very short and can be affected heavily by poor weather conditions
- Some tropical varieties are not available in Canada
- Canadians want the same consistent, quality produce year round
- Canadians can access different varieties that are reflective of diverse cultural and ethnic backgrounds
- Canada has high food safety standards (product that comes into the country must meet strict standards)

Disadvantages of buying produce from abroad

- Food often travels for days before it reaches the grocery store shelves
- Importing food burns fuel which is not good for the environment
- Food that is imported often includes bulk packaging which means added waste

(Source: "Fresh Facts: Buy Local" – CPMA – Version 1 – November 12, 2010)

TEACHING THE LESSON

Step 1: Complete the Food Miles worksheet

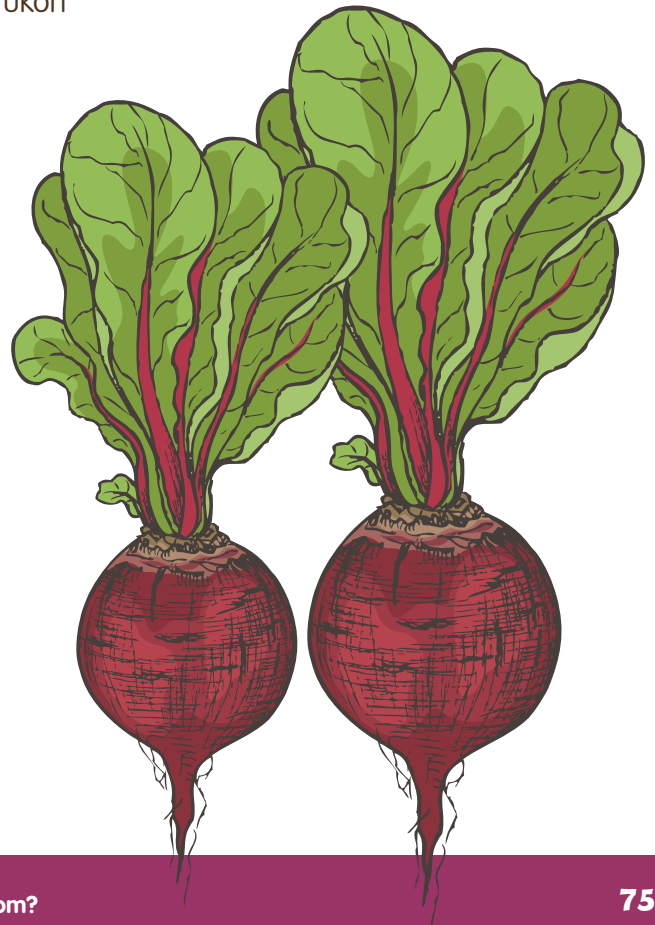
- The food miles handout provides locations where each fruit and vegetable is grown and the distance the produce would travel to get from the "farm" to the Yukon "table". Record this information on the Food Miles worksheet
- Using the calculating greenhouse gas emissions handout, calculate the greenhouse gas emissions for each food item travelling to the Yukon from each place it is grown. Record this information on the Food Miles worksheet.

Step 2: Mapping

- On the world map, chart the possible distances and routes each food item could travel in order to arrive in Yukon. Clearly identify which food item is travelling with distance (using colour, pictures, etc.)

Step 3: Poster

- Visually represent food miles and the routes your food items travel from where they are grown to the Yukon
- Visually represent from "farm" to "table"
- Visually represent local foods you can buy/grow in Yukon



CALCULATING GREENHOUSE GAS EMISSIONS

Climate change is the result of changes in our weather patterns because of an increase in the Earth's average temperature. This is caused by increases in greenhouse gases in the Earth's atmosphere. These gases soak up heat from the sun but instead of the heat leaving the Earth's atmosphere, some of it is trapped, making the Earth warmer. Transporting food long distances guzzles fossil fuels and emits greenhouse gases that contribute to climate change. Do the math and figure out approximately how many greenhouse gas emissions are produced as your food travels to make it to your plate in the Yukon.

Three simple steps to calculating greenhouse gas emissions:

STEP 1: How many kilometers did your food travel from its origin to get to the Yukon?

STEP 2: Which method of transportation did your food use to get to the Yukon? Plane, boat or truck?

STEP 3: Now you are ready to do the calculations: Kilometers travelled multiplied by greenhouse gas emissions.

Grams of GHG emissions per km travelled for each kg of food

PLANE	1.1010
BOAT	0.1303
TRAIN	0.0212
TRUCK	0.2699

Environment Canada 2012

Example calculation:

One kilogram of avocados grown in Mexico travels 5378 km to reach the Yukon. Since it travels by TRUCK primarily we multiply the distance travelled by 0.2699

$1 \text{ kg} \times 5378 \text{ km} \times 0.2699 = 1451$ grams of GHG emissions are emitted to the atmosphere.

Adapted from: Food Miles: Growing Local Food Connections
<http://www.fallsbrookcentre.ca/foodmiles/docs/Food%20Miles%20Module>

FOOD MILES WORKSHEET

Using your Food Miles chart to assist you, record the three locations where each food is grown and the distance of each location from the Yukon. Calculate and record the greenhouse (GHG) emissions.

FRUIT & VEGETABLES	LOCATION & DISTANCE A	GHG EMISSIONS	LOCATION & DISTANCE B	GHG EMISSIONS	LOCATION & DISTANCE C	GHG EMISSIONS
BANANAS						
APPLES						
STRAWBERRIES						
POTATOES						
TOMATOES						
ASPARAGUS						

Adapted from: Food Miles: Growing Local Food Connections
<http://www.fallsbrookcentre.ca/foodmiles/docs/Food%20Miles%20Module>

FOOD MILES

FRUIT & VEGETABLES	WHERE DOES IT COME FROM?	WHAT IS THE MAIN TYPE OF TRANSPORTATION?
BANANA	Costa Rica – 7005 km Colombia – 7387 km Ecuador – 8289 km	boat plane plane
APPLES	British Columbia – 2588 km Ontario – 5514 km New Zealand – 12218 km	truck train boat
STRAWBERRIES	California – 3957 km British Columbia – 2588 km Ontario – 5514 km	truck truck truck
POTATOES	Yukon Territory – 25 km Manitoba – 3292 km Idaho – 3418 km	truck truck truck
TOMATOES	California – 3957 km British Columbia – 2588 km Chile – 11977 km	truck truck plane
ASPARAGUS	Mexico – 5378 km California – 3957 km British Columbia – 2588 km	truck truck truck

To simplify the assignment we have listed the **main** type of transportation used for each product to travel from the location to the Yukon. We realize that all food items imported to the Yukon are transported by truck from either Edmonton or Vancouver.

Adapted from: Food Miles: Growing Local Food Connections
<http://www.fallsbrookcentre.ca/foodmiles/docs/Food%20Miles%20Module>

GRADE 6 + 7

LESSON 2

SIGNATURE SALADS

LESSON OVERVIEW

Students will put together a nutritious salad using fresh ingredients or local produce. Students will gain knowledge of Canada's Food Guide and be able to put it into practice when making their salads.

PRESCRIBED LEARNING OUTCOMES: HEALTH

Grade 6: C1. Describe the benefits of attaining and maintain a balanced, healthy lifestyle, including the benefits of being physically active, healthy eating practices, an emotionally healthy lifestyle

Grade 7: C1. Analyze factors (including media and peer) that influence personal health decisions.

MATERIALS REQUIRED

- Salad ingredients
- Salad dressing ingredients
- Kitchen utensils (cutting boards, knives, graters, bowls, cutlery, etc)
- Eating Well with Canada's Food Guide (included)
- Chart paper or chalk board to record "criteria" for salads
- Various advertisements of salads

BACKGROUND INFORMATION

Each food group is high in certain nutrients, but no single food or food group can give you all the nutrients you need. This means it is important to eat a variety of food from each food group every day. Eating healthy and being physically active are important parts of being healthy and feeling good. When you eat well your body gets the nutrients and energy you need to grow. Eating well helps you concentrate and perform better in activities like school, sports and hobbies.

Vegetables and fruit have important nutrients such as vitamins, minerals and fibre. A healthy diet rich in vegetables and fruit may help reduce the risk of cardiovascular disease (a range of conditions that affect your heart) and some types of cancer.

Nutrients provided by vegetables and fruit include carbohydrate, vitamins A and C, potassium, magnesium and some B vitamins such as folate. These nutrients work together with other naturally occurring parts in vegetables and fruit to provide an overall health benefit.

The Vegetables and Fruit food group is the largest arc in the rainbow on Eating Well with Canada's Food Guide. This food group makes up the largest proportion of the Food Guide Servings in the healthy eating pattern and includes vegetables and fruit in many forms: fresh, frozen, as juice, canned and dried.

Some products with “vegetable” or “fruit” in their names or on their packaging are composed mainly of fat or sugar or are very high in salt so these foods would be sometimes foods, versus everyday foods. Ask students to brainstorm a list of foods that have “vegetable” or “fruit” in their names.

Fruit candies, vegetable chips, fruit jams or spreads, ketchup, as well as vegetable or fruit drinks or punches do not belong in the Vegetables and Fruit food group.

Choose 100% vegetable or fruit juices. Vegetable or fruit “drinks” or “beverages” may contain only a small amount of real vegetable or fruit juice. Juice is a sometimes beverage. Water and milk are every day beverages.

Source: <http://www.eatrightontario.ca/en/Articles/Food-guides/Eating-well-with-Canada-s-Food-Guide.aspx>

TEACHING THE LESSON

SALAD CHALLENGE

- Lay out the ingredients on one table, and utensils on another and the salad dressing ingredients on another
- Set the guidelines for the challenge (agreed on by the group) and write on the board

Examples of challenge guidelines:

- Students can work in groups
- Salads must contain at least 1 Yukon grown vegetable
- Salads must contain at least 3 Food Groups from Canada’s Food Guide
- Salads must contain at least 3 different colours
- Groups must use at least 3 different “processing” methods (ex. Chopping, grating, crumbling)
- It must look good
- It should taste good!
- Taste test all the salads. Discuss with the students what the differences/similarities are between all the salads. Which ones were the favourite? Could you make a salad with all ingredients from your garden?
- Clean up

FOOD & MEDIA

- Look at various advertisements of salads. Discuss with the students: are they healthy? Why or why not? Do the salads have foods from each of the four food groups? Who do you think they’re targeted at?
- How would you advertise for your salad? Who would be your target audience?

Source: Signature Salads: www.foodshare.net



GRADE 6 + 7

LESSON 3

VEGGIE KNOWLEDGE

LESSON OVERVIEW

Students will learn facts about a variety of vegetables and will prepare a poster or video explaining why it's important to eat your vegetables.

PRESCRIBED LEARNING OUTCOMES: HEALTH

Grade 6: C1. Describe the benefits of attaining and maintain a balanced, healthy lifestyle, including the benefits of being physically active, healthy eating practices, an emotionally healthy lifestyle.

Grade 7: C1. Analyze factors (including media and peer) that influence personal health decisions.

MATERIALS REQUIRED

- Copies of Eating Well with Canada's Food Guide (included)
- Poster paper
- Ipads (if your class chooses to make a video for Eat Your Veggies activity, Health Promotion will lend you an iPad for this project. Contact Brenda or Kim at health.promotion@gov.yk.ca and indicate how many Ipads you need)
- Prizes for winning team (optional)

BACKGROUND INFORMATION

There are three main ways a vegetable can grow. Some are roots that grow underground. These include parsnips, carrots and radishes. When you plant the seeds you have to be very patient and wait for the green shoots to grow big and leafy above the ground. If you pull them up too soon you will break their root tendrils and they will stop growing.

Other vegetables that grow underground are onions and potatoes. These are not quite the same as root vegetables. The part of the onion that we eat is a bulb that grows below ground, with small roots extending into the soil and green leaves sprouting above ground. A potato is what's called a tuber, which forms part of the potato plant's root system.

The second way vegetables can grow is on a vine. This includes pumpkins, squash, zucchini and peas, beans and tomatoes (technically a fruit) which can be supported with poles or nets to help the vine grow upward. Each of these vegetables is actually a seed pod, and you can easily see that when you open them up. Think of how many little seeds are inside a tomato, or how much slimy goop full of seeds you have to dig out of your Hallowe'en pumpkin!

The third way vegetables grow is sprouting up above ground with strong roots holding them up. Such as broccoli, cauliflower, lettuce, spinach and cabbage.

Source: <https://lynnerickardsauthor.wordpress.com/2012/10/03/how-do-fruit-and-vegetables-grow/>

TEACHING THE LESSON

Play VeggieQuiz

- split the class into 3 or 4 teams
- ask the VeggieQuiz questions (see below)
- Make game rules together with the class. (ie can the team talk with each other before making a final answer, does a team captain answer for the team, do they buzz or raise their hand, etc.)
- Two points are awarded for each right answer and one point is deducted for each wrong answer
- The first team to earn 20 points wins

NOTE: For a different way to play, split the class into teams and ask everyone to stand up. Ask veggie trivia questions. Students sit down when they answer incorrectly. The team with the last person standing wins!

Sources: Fresh Vegetable Growers of Ontario: <http://www.freshvegetablesontario.com/>, VHQ - Verified Health Quality: <http://vhqfoods.ca>, Dietitians of Canada: www.dietitians.ca, Heart and Stroke Foundation of Canada: <http://www2.heartandstroke.ca>, Ontario Produce Marketing Association: <http://www.opma-assn.com/>, Canadian Produce Marketing Association - 5 to 10 a day for better health: <http://www.5to10aday.com/>.

VEGGIE QUIZ GAME

Note to teachers: Students may not be required to provide the complete answers listed. In many cases, additional information has been provided for your reference.

VEGETABLE	QUESTION	ANSWERS
General Questions- Canada's Food Guide	Name the four food groups in Canada's Food Guide	Vegetables and Fruit Grain Products Milk and Alternatives Meat and Alternatives
	In Canada's Food Guide, what colours on the rainbow represent each food group?	Vegetables and Fruit= green Grain Products= yellow Milk and Alternatives= blue Meat and Alternatives= red
	In Canada's Food Guide, what is one serving of vegetables or cooked leafy green vegetables?	125 mL, ½ cup
	Why are vegetables good for your health?	They contain important nutrients such as vitamins, minerals and fibre to benefit overall health.
	True or False? You should only eat dark green and orange vegetables	False. Canada's Food Guide recommends that we choose at least 1 dark green and 1 orange vegetable a day, but all of the vegetables work together as a team to give you the best combination of nutrients for your health.

VEGGIE QUIZ GAME

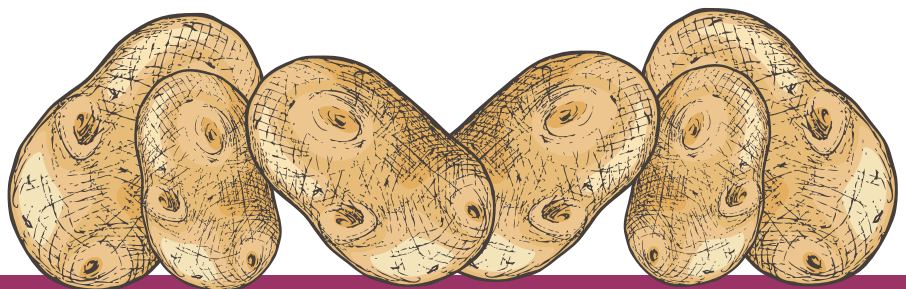
VEGETABLE	QUESTION	ANSWERS
	True or False? Vegetables come from the grocery store.	False. Before vegetables end up in the grocery store they were grown underground in soil (carrots, parsnips, potatoes), on a vine (peas, beans, tomatoes, pumpkin), or grown above the soil (spinach, lettuce, cabbage, broccoli)
Broccoli	Broccoli is a good source of vitamin C. Name one other vegetable that is a good source of vitamin C	<ul style="list-style-type: none"> • Brussel sprouts • Red peppers • cauliflower
Cabbage	What other vegetable looks like a mini version of cabbage?	Brussel sprouts
Spinach	Spinach is an excellent source of vitamin A. Name 1 function of vitamin A for our body.	Vitamin A: <ul style="list-style-type: none"> • helps build bones and teeth • helps you see at night • helps keep your skin healthy
Beet	Beet roots are an excellent source of folate. How does folate help keep you healthy?	Folate aids in forming red blood cells (red blood cells carry oxygen and carbon dioxide through your body)
Red Pepper	There are different types of peppers. Name at least 1 type of pepper	<ul style="list-style-type: none"> • red peppers • green peppers • chile peppers • jalapeno peppers • habanero peppers



VEGGIE QUIZ GAME

VEGETABLE	QUESTION	ANSWERS
Tomato	Tomatoes are used in many recipes. Name two foods that contain tomatoes.	Tomato paste, spaghetti sauce, pizza, salad, ketchup, tomato soup, salsa
Potatoes	In Canada's Food Guide, what is one serving of potatoes?	125 mL, ½ cup, ½ medium potato
Carrots	Carrots are an excellent source of Vitamin A. Name at least 1 of the health benefits of Vitamin A.	Vitamin A: <ul style="list-style-type: none"> • helps build bones and teeth • helps you see at night • helps keep your skin healthy
Sweet Potatoes	True or False? Sweet potatoes are the same as yams.	False. Sweet potatoes are not related to yams or white potatoes. Yams are usually grown in the Tropics.

Sources: Fresh Vegetable Growers of Ontario: <http://www.freshvegetablesontario.com/>, VHQ - Verified Health Quality: <http://vhqfoods.ca>, Dietitians of Canada: www.dietitians.ca, Heart and Stroke Foundation of Canada: <http://www2.heartandstroke.ca>, Ontario Produce Marketing Association: <http://www.opma-assn.com/>, Canadian Produce Marketing Association - 5 to 10 a day for better health: <http://www.5to10aday.com/>.



Canada's Food Guide

- Distribute a copy of Eating Well with Canada's Food Guide to each student
- Ask the students to identify the foods that they see in the Vegetables and Fruit group
- Have the students create a one-minute 'quick list' of other foods that could be pictured in the various categories. Have them share their answers and record them in charts or on the board

Eat Your Veggies

- Have students take a piece of paper and divide it in half lengthwise. Label one column "Why I Like Vegetables" and the other column "Why I Don't Like Vegetables" and complete this chart individually
- Compare the answers among class members
- Have students prepare a fact sheet, poster, or video that would encourage other students to eat vegetables

Source: www.veggiemania.ca



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