

Know Your Nutrients

Action Schools! BC

Vegetable & Fruit Learning Activity



6

VEGETABLE
AND
FRUIT

This activity reinforces Canada's Food Guide tips for choosing foods from the Vegetables and Fruit food group, and helps students to understand the importance of eating a variety of vegetables and fruit to help them get all the nutrients they need.

CURRICULUM CONNECTIONS



BIG IDEAS

- Healthy choices influence our physical, emotional, and mental well-being.

CURRICULAR COMPETENCIES

- Explore and plan food choices to support personal health and well-being.
- Describe the impacts of personal choices on health and well-being.
- Identify, apply and reflect on strategies used to pursue personal healthy-living goals.
- Describe and assess strategies for promoting mental well-being, for self and others.

CONTENT

- Influences on food choices.
- Sources of health information.



FIRST PEOPLES PRINCIPLES OF LEARNING FOR ALL STUDENTS

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning involves recognizing the consequences of one's actions.

COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



RELATIONSHIPS AND ENVIRONMENTS

- Promote respectful behaviours when listening to others while they are working on lesson activity.

TEACHING AND LEARNING

- Understanding how nutrients fuel your body for learning and activity. Nutrients also support mental health and well-being.

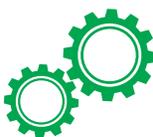
OUR SCHOOL POLICIES

- Support your school following the [Guidelines for Food and Beverage Sales in B.C. Schools](#) to make the healthy choice the easy choice within the school environment.

PREPARATION

- Review the *Vegetable and Fruit* section of the *Healthy Eating Overview* (included with this activity).

IMPLEMENTATION



- Write the word nutrients on the board. Ask the class to explain what the term means to them.
- Essential nutrients are those that must be provided through diet as the body cannot make them or make them in sufficient amounts. Every food we eat and the fluids we drink are made up of nutrients. The ones we need are:

- | | |
|-------------------|-----------------|
| 1. carbohydrates, | 4. vitamins, |
| 2. protein, | 5. minerals and |
| 3. fat, | 6. water. |

- Divide the class into 6 groups and assign each group a nutrient. Each group must present to the rest of the class their understanding of their assigned nutrient in any format they choose (powerpoint, oral presentation, visual representation, skit, etc.).
- Guide students to investigate each nutrient as it is found in vegetables and fruit and how these nutrients work to keep the body healthy.
- At the end of the presentations, invite students in a talking circle asking why it is important to:
 - Q:** Eat a variety of vegetables and fruit.
 - A:** Different vegetables and fruit offer different nutrients for health. By enjoying vegetables and fruits of all colours and tastes, we get the maximum health benefit. Fresh, frozen or canned can all be healthy choices. In general, the darker the colour of a vegetable or fruit, the higher its nutrient value.
 - Q:** Fill half your plate with fruits and veggies.
 - A:** Vegetables and fruit should play the leading role in our diets – we need to eat more servings of them than any other food group. By making half our plate's vegetables and fruit at every meal, we can get the different nutrients we need, in the amounts we need, for health and well-being.
 - Q:** Choose whole vegetables and fruit more often than juice.
 - A:** Eating whole vegetables and fruit is more nutritious than drinking juice. While 100% unsweetened juice is a healthier choice than other sugary drinks (because it contains nutrients such as Vitamin C), it still contains a lot of natural sugar. For this reason, children should have no more than half a cup of 100% fruit juice each day.
It's also better to eat your calories than to drink them. If you're thirsty, drink water, milk or unsweetened fortified soy beverage – these are all great choices!
Eating vegetables and fruit provides more fibre than juice. Fibre supports our gut health.
- Being informed and knowledgeable about a topic (nutrients) helps students feel empowered, providing support for mental well-being.

EXTENSION OF LEARNING

- *Vegetables and Fruit Journal* (www.actionschoolsbc.ca/resources)
- *Vegetable and Fruit Class Challenge* (www.actionschoolsbc.ca/resources)
- Share with the class that, according to First Peoples, culture is a determinant of health as culture is intricately tied to traditional First Peoples foods. Not only are traditional foods valued from cultural, spiritual and health perspectives but the activities involved in their acquisition and distribution allow for the practice of cultural values such as sharing and cooperation.

RECOMMENDED RESOURCES

- Health Canada – *Eating Well with Canada's Food Guide* (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php> - available in 12 languages and for First Nations, Inuit and Métis; free class sets available)
 - *Canada's Food Guide: A Resource for Educators and Communicators* (F) <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php>
 - *Eat Well Plate* guidelines - <http://www.healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>.
- Half Your Plate – (www.halfyourplate.ca)

OVERVIEW: VEGETABLES AND FRUIT

This section explains why it is important to eat vegetables and fruit.

Information relating to conducting tasting activities with students, food safety considerations, messaging relating to variety and information on produce grown in BC can be found in this section.

Recommended guidelines:

- Make a healthy choice. Fill half your plate with fruits and veggies.
- Children aged 4 to 8 should eat a minimum of 5 food guide servings of vegetables and fruit each day.
- Children and youth aged 9 to 13 should eat a minimum of 6 food guide servings of vegetables and fruit each day.
- Eat one dark green and one orange vegetable each day.
- Choose vegetables and fruit more often than juice.
- Drink water – it's always a great choice.

Why Are They Important?

The Vegetables and Fruit food group is the largest arc in the rainbow on *Canada's Food Guide*, emphasizing the key role these foods play in a healthy eating pattern.

Vegetables and fruit include important nutrients such as carbohydrates (including fibre), vitamins, minerals, and antioxidants. Choosing a wide variety of colourful vegetables and fruit helps to ensure we get all of the nutrients we need.

A diet that includes a wide variety of vegetables and fruit helps children to grow, learn and play. Additionally, this may help reduce the risk of cardiovascular or heart disease and some types of cancer, as well as help to achieve and maintain a healthy weight.

The recommended number of servings is different for people at different stages of life and is different for males and females after age 14. *Canada's Food Guide* recommends a minimum of 5 servings a day of vegetables and fruit for children aged 4 to 8 years and a minimum of 6 per day for children aged 9 to 13 years.

Canada's Food Guide - Eat Well Plate is another resource that helps build healthy meals and encourages making half your plate vegetables and fruit at each meal (<http://www.healthycanadians.gc.ca/alt/pdf/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.pdf>).

Canada's Food Guide has been translated into 12 languages. Visit Health Canada's website to download translated copies. In addition to the translated Food Guides, Canada also has a *First Nations, Inuit and Métis Food Guide*. The "My Food Guide" tool on the Health Canada website allows individuals to create a personalized food guide using the foods that are part of their eating pattern. You can choose to print this tool in either English or French.

References:

- *Eating Well with Canada's Food Guide* (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>)
- *Health Canada's The Eat Well Plate* (<http://www.healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>)
- Canadian Paediatric Society (<http://www.cps.ca>)
- Dietitians of Canada (<http://www.dietitians.ca/>)

What Is a Vegetable?

Vegetable is not a botanical term, but rather a culinary term which generally refers to any edible part of a plant that is not regarded as a fruit, nut, herb, spice, or grain. Vegetables can include leaves (lettuce), stems (asparagus), roots (carrots), tubers (potatoes), flowers (broccoli), bulbs (garlic), and seeds (peas and beans). Some botanical fruit such as cucumbers, squash, pumpkins, tomatoes, and sweet peppers are usually referred to as vegetables.

What Is a Fruit?

In botany, a fruit is the ripened seed-bearing part of a flowering plant. In cuisine when discussing fruit as food, the term usually refers to just those plant fruits that are sweet and fleshy (e.g., plums, apples, and oranges). Many foods are botanically fruit but are treated as vegetables in cooking. These include cucurbits (e.g., squash, pumpkins, and cucumbers), tomatoes, peas, beans, corn, eggplants, and peppers.

Vegetable and Fruit Tasting

Repeated exposure to food, including seeing, smelling, and touching new food, and preparation and tasting, is the most effective way to influence a child's eating behaviours. See the *Action Schools! BC Extension Activities*, available at www.actionschoolsbc.ca for great ways to conduct tasting activities with students.

- The objective of a tasting party is to have students sample a vegetable or fruit – not to provide a full serving to each student.
- Children may be more willing to try new types of food with their peers. Providing a relaxed setting without forcing them to try new foods helps to build a healthy relationship with food.
- Fresh vegetables and fruit work best for tasting activities. Choose local vegetables and fruit that are in season when possible. If fresh vegetables and fruit are not available, try dried fruit with no added sugar; frozen vegetables and fruit with no added salt or sugar; or canned vegetables and fruit in water, juice, or light syrup (has added sugar).
- See the *Food Safety Considerations* information for important reminders about food safety when conducting tasting activities with students.
- Visit Healthy Schools BC for programs and supports that may be available to your school to support healthy eating, including providing grants or fruits and vegetables directly (www.healthyschoolsbc.ca).
- Using *Food Tasting Chart* (available at www.actionschoolsbc.ca/resources) allows students to reflect on what they are tasting, use their senses, and develop their vocabulary.

Name of vegetable or fruit: _____

I've tried this vegetable or fruit _____ times.

Description		😊	😐	😞
Taste				
Texture				
Appearance				

Buying Locally Grown Food Has Many Advantages

Whether it is purchasing the produce for your Tasting Party or teaching students about the food system, it is important to highlight the benefits of growing and/or purchasing local food.

Buying Locally Is Good for the Economy

Dollars spent on locally grown food are reinvested back into the community, which contributes to the growth of small businesses, generates local jobs, raises property values, and leads to strong health care, education, and recreation sectors.

Buying Locally Is Good for the Environment

Food produced and consumed locally has a smaller carbon footprint. It uses less fossil fuel for transportation and requires less material for packaging compared to mainstream food production.

References

- *Fighting Global Warming at the Farmer's Market: A FoodShare Research in Action Report*, Second Edition, April 2005 (http://foodshare.net/custom/uploads/2015/11/Fighting_Global_Warming_at_the_Farmers_Market.pdf)
- BC Agriculture in the Classroom (www.aitc.ca/bc/)

BC Grown Vegetables and Fruit

An abundance of produce grows right here in BC. With a wide variety of climates and growing conditions, availability throughout the province varies.

spring

apples • Asian vegetables* • asparagus
cabbage • celery • chard • cucumbers
garlic • kale • leeks • lettuce
mustard greens • onions • parsnips
peas • potatoes • radishes
rhubarb • salad greens • spinach
tomatoes • turnips

summer

apples • apricots • artichokes
Asian vegetables* • asparagus
beans • beets • blackberries
blueberries • broccoli • Brussels
sprouts • cabbage • carrots
cauliflower • celery • chard • cherries
corn • cucumbers • currents • eggplant
fennel • garlic • gooseberries • grapes
huckleberries • kale • leeks • lettuce
melons • mustard greens • nectarines • onions
parsnips • peaches • pear • peas • peppers
plums • potatoes • prunes • pumpkins
quince • radishes • raspberries • rhubarb
rutabagas • salad greens
Saskatoon berries • shallots
spinach • strawberries
summer squash
tomatoes • turnip
winter squash
zucchini

fall

apples • Asian vegetables*
artichokes • beets • beans
blueberries • broccoli
Brussels sprouts • cabbage
carrots • cauliflower • celery
chard • corn • cranberries
cucumber • eggplant • fennel
garlic • grapes • huckleberries • kale
kiwi • leeks • lettuce • melons
mustard greens • onions • parsnips
pears • peppers • plums • potatoes
prunes • pumpkin • quince • radishes
rutabaga • salad greens • spinach
strawberries • tomatoes • turnips
winter squash • zucchini

winter

apples • beets
Brussels sprouts
cabbage • carrots
cucumbers • kale
kiwi • leeks • onions
parsnips • pears
potatoes • pumpkin
rutabagas • turnips
winter squash

* (e.g. bok choy, choy sum, gai chong, sui choy, gai lan, daikon, lotus root)

Check out what's grown in your region at
www.farmfolkcityfolk.ca

Recommended Resources

- Healthy Families BC (www.healthyfamiliesbc.ca/eating)
- HealthLink BC – Healthy Eating (www.healthlinkbc.ca/healthy-eating)
- Health Canada
 - *Eating Well with Canada's Food Guide* (available in 12 languages and for First Nations, Inuit and Métis; free class sets available) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>)
 - *Canada's Food Guide: A Resource for Educators and Communicators* (F) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php>)
 - *Eat Well and Be Active Educational Toolkit* (F) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php>)
 - *Eat Well Plate* (<http://healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>)
- HealthLink BC: Call 811 and speak with a registered dietitian (www.healthlinkbc.ca)
- Canadian Paediatric Society – Caring for Kids (www.caringforkids.cps.ca)

FOOD SAFETY CONSIDERATIONS

There are steps to take to prevent illness and make fresh vegetables and fruit safe to eat.

- When buying and storing vegetables and fruit, always keep them separate from raw foods such as meat, poultry and seafood. Juices from raw foods can be contaminated with germs that cause illness.
- Always wash hands with soap and warm running water before preparing any food, including vegetables and fruit.
- Any person who is sick and has symptoms of diarrhea or vomiting, or who has infected cuts or sores, should not be allowed to handle food in any way.
- Always wash and sanitize* surfaces where foods are prepared and placed.
- Dishcloths must be washed well and sanitized regularly.
- Take extra care to thoroughly clean vegetables and fruit, especially dirty produce. Wash them in a diluted dish soap solution and then rinse in clean running water.
- When washing vegetables and fruit, cut away any damaged or bruised areas since harmful germs can grow there. Compost or throw away any rotten vegetables and fruit.
- Wash and scrub vegetables and fruit that have a firm, rough surface such as potatoes, using a clean scrub brush for produce.
- Always wash vegetables and fruit that have a rind, before peeling or preparing them, such as pineapples, cantaloupe, oranges, melon and squash. Although the skin and outer surfaces protect them, germs can grow if the surface gets broken, pierced or cut, especially in melons and tomatoes.
- Always discard the outer leaves of leafy vegetables grown in or near the ground, such as lettuce and cabbage. The outer leaves are more likely to be contaminated with germs.

- Raw sprouted seed products, such as bean sprouts, radish sprouts, alfalfa sprouts, mung beans and others, may carry germs that cause illness. Always cook these before eating because it is difficult to wash sprouted seeds.
- Contaminated foods may not look or smell bad so if in doubt, throw it out!
- Be cognizant of any food allergies that your students may have prior to activities that involve food.
- You can make a sanitizing solution:
 - Mix 15 ml (1 tablespoon) of household bleach into 4 L (1 gallon) of water; or,
 - Mix 5 ml (1 teaspoon) of household bleach into 1 litre (4 cups) of water.

Adapted from: *Food Safety for Fresh Fruits and Vegetables* and *Ten Easy Steps to Make Food Safe*, HealthLink BC

Recommended Resources

- *Do Bugs Need Drugs?* (www.dobugsneeddrugs.org)
- HealthLink BC: Call 811 and speak with a registered dietitian (www.healthlinkbc.ca)