

Pumpkins, Pumpkins!

Action Schools! BC

Vegetable & Fruit Learning Activity



Students will enjoy following the festive pumpkin from seed to table.

CURRICULUM CONNECTIONS



BIG IDEAS

- Knowing about our bodies and making healthy choices helps us look after ourselves.
- Good health comprises physical, mental, and emotional well-being.

CURRICULAR COMPETENCIES

- Identify and explore a variety of foods and describe how they contribute to health.
- Identify opportunities to make choices that contribute to health and well-being.

CONTENT

- Relationships between food, hydration, and health.
- Practices that promote health and well-being.



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.

COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



RELATIONSHIPS AND ENVIRONMENTS

- Invite older students to work together on this activity.

TEACHING AND LEARNING

- Students learn that pumpkins and most of the food they eat comes from farms.

COMMUNITY PARTNERSHIPS

- Visit your local pumpkin patch.

PREPARATION

- Review the *Vegetables and Fruit* section of the *Healthy Eating Overview* (included with this activity)
- Photocopied blank pumpkin shapes
- Mirrors
- Various poems or books about pumpkins or feelings and emotions.

IMPLEMENTATION



- Read *It's a Fruit, It's a Vegetable, It's a Pumpkin Book*.
- Brainstorm with the class words to describe a pumpkin and words associated with pumpkins.
- Share with the class how pumpkins contribute to their health:

Winter squashes and pumpkins are all rich in vitamin A (from carotenoids like alpha- and beta-carotene). You can tell they are a good source of vitamin A from their rich yellow-orange colors. Vitamin A is needed for healthy eyes, lungs and skin and to help fight infections. Also, diets rich in vitamin A from fruits and vegetables may help reduce your risk of illness. Winter squashes and pumpkins are also a good source of vitamin C and fibre.

- Write a collaborative class poem about pumpkins on pumpkin-shaped paper.
- To help students become aware of the feelings and emotions conveyed through facial expressions, read stories and poems from books about feelings and emotions, showing the related facial expressions as you read. Distribute mirrors and have the children make faces for different feelings that you call out. Discuss when we may experience these different feelings. Brainstorm with students a list of emotions one's face can portray: happy, sad, sleepy, sad, scared, surprised, etc. Using pumpkin-shaped paper, students can illustrate a variety of pumpkin faces to show the range of emotions we all feel. Such illustrations could be the focal point of a group-written big book on how we feel inside!
- Make pumpkin muffins, soup, or roast pumpkin seeds for everyone to enjoy!

PUMPKIN APPLESAUCE MUFFINS



Makes 12 large muffins

Preparation Time: 10 minutes
Cooking Time: 15 to 20 minutes

Preheat oven to 400°F (200°C)
12-cup muffin tin, lightly greased or lined with paper cups

INGREDIENTS

500 ml (2 cups) whole wheat flour	10 ml (2 tsp) baking powder
5 ml (1 tsp) baking soda	2 ml (1/2 tsp) salt
2 ml (1/2 tsp) cinnamon	1 ml (1/4 tsp) nutmeg
300 ml (1 1/3 cup) canned, 100% pumpkin	1 egg, lightly beaten
125 ml (1/2 cup) granulated sugar	250 ml (1 cup) unsweetened applesauce
60 ml (1/4 cup) vegetable oil	

DIRECTIONS

1. In a large bowl, combine flour, baking powder, baking soda, salt, cinnamon and nutmeg.
2. In a medium bowl, combine pumpkin, egg, applesauce, sugar, and oil. Stir into flour mixture until just combined.
3. Divide batter evenly among prepared muffin cups or lightly greased muffin pan.
4. Bake in preheated oven for 15 to 20 minutes or until tops are firm to the touch and a tester inserted in the centre of a muffin comes out clean.
5. Let cool in tin for 10 minutes, then remove to a wire rack to cool completely.

This recipe fits into the *Guidelines for Food and Beverage Sales in BC Schools*.

Adapted from: Dietitians of Canada, *Bake Better Bites*

PUMPKIN SOUP

Makes 6 – 250 ml (1 cup) servings



INGREDIENTS

- 30 ml (2 tbsp) vegetable oil
- 1 L (4 cups) pumpkin or squash, peeled and cubed
- 175 ml (3/4 cup) carrot, chopped
- 175 ml (3/4 cup) onion, chopped
- 2 cloves of garlic, minced
- 1 L (4 cups) low sodium vegetable or chicken broth (or reconstituted, powdered stock)
- pepper, to taste
- 30 ml (2 tbsp) chopped, fresh parsley (optional)

PREPARATION

1. Add oil to a large saucepan and heat over medium-low heat. Add pumpkin, carrot, onion, and garlic and cook, stirring often, until onion is softened, about 5 minutes. Add broth and bring to a boil.
2. Reduce heat, cover and simmer, stirring occasionally, until vegetables are very tender, about 45 minutes.
3. In a food processor or blender, blend the soup in batches until pureed. Add pepper to taste.
4. Heat before serving. Garnish with chopped parsley if desired.
5. This recipe fits into the *Guidelines for Food and Beverage Sales in BC Schools*.

PUMPKIN SMOOTHIE (Pumpkin Pie in a Glass)

Makes 4 – 250 ml (1 cup) servings



INGREDIENTS

- 250 ml (1 cup) unseasoned pumpkin puree
- 250 ml (1 cup) plain yogurt
- 1 ripe banana
- 250 ml (1 cup) 1% milk- (provide options for students who may be lactose intolerant)
- 250 ml (1 cup) ice
- 5 ml (1 tsp) cinnamon
- dash nutmeg, cloves and/or allspice
- 15 ml (1 tbsp) honey (optional)

PREPARATION

1. Add ingredients to a blender and mix until smooth.

This recipe fits into the *Guidelines for Food and Beverage Sales in BC Schools*.

EXTENSION OF LEARNING

- Pumpkin Patch Field Trip

RECOMMENDED RESOURCES



- *It's a Fruit, It's a Vegetable, It's a Pumpkin* book (Healthy Living Booklist – www.actionschoolsbc.ca/resource)
- *Les Citrouilles* (available in French only) (Healthy Eating Booklist – www.actionschoolsbc.ca/resources)
- *Pumpkin Soup; The Pumpkin Book* (Healthy Eating Booklist – www.actionschoolsbc.ca/resources)
- BC Agriculture in the Classroom Foundation (www.aitc.ca) *Pumpkin Time* handout
- *Bake Better Bites* (<http://healthyschoolsbc.ca/program/404/bake-better-bites-2014-recipes-and-tips-for-healthier-baked-goods>)
- 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>
- Health Canada: *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>
- *All About Pumpkins* (www.allaboutpumpkins.com/history.html)

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).

Name of vegetable or fruit: _____

I've tried this vegetable or fruit _____ times.

Description		😊	😐	😞
Taste				
Texture				
Appearance				

- 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.

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/)

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)