

Nutritious, Delicious,
WISCONSIN
CONNECTING
NUTRITION EDUCATION
AND LOCAL FOODS

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Foreword

Using locally grown foods in the classroom is a tasty way to inspire learning about Wisconsin's history, culture, and people. Imagine how the rich diversity of flavors, colors, and textures of Wisconsin foods will enhance the study of our state's history. *Nutritious, Delicious, Wisconsin* is a thematic curriculum unit that brings a new dimension to Wisconsin studies.

The goal of this curriculum unit is to have children eat more healthful foods, particularly the delicious varieties of fruits and vegetables grown in Wisconsin. One strategy to help meet this goal is to increase the exposure to healthy Wisconsin foods through gardening, food explorations, and other classroom activities. This curriculum, focused mostly on the fourth grade study of Wisconsin, will explore many delicious and healthy local foods. The use of these foods will help students, parents, and other adults make connections to certain aspects of Wisconsin's history and culture, and engage them in social studies and nutrition topics.

Wisconsin school districts are encouraged to use *Nutritious, Delicious, Wisconsin* in their elementary classrooms, school cafeterias, and in the community. Here's to good learning and good health while exploring the foods and history of Wisconsin.



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Nutritious, Delicious, WISCONSIN

Table of Contents

Foreword	iii
Acknowledgements	iv
Introduction	1
Lesson Plans	3
Vegetables: Parts of a Plant (<i>Grades 3 to 5</i>)	4
Six Plant Parts We Eat Worksheet	11
Six Plant Part Wraps (<i>Grades 3 to 5</i>)	12
Six Plant Parts Wrap Worksheet	15
Growing a Garden Game (<i>Grades 2 to 4</i>)	16
It's in the Bag (<i>Grades 4 to 5</i>)	19
Super Snacking—	
Feel Good! Be Smart! Look Good! (<i>Grades 4 to 5</i>)	21
Variety and Where Food Comes From (<i>Grades 4 to 7</i>)	24
Milk From Cow to You (<i>Grades 2 to 4</i>)	27
Where Does Food Come From? (<i>Grades 1 to 4</i>)	29
Shopping for Nutrition (<i>Grades 4 to 5</i>)	32
Exploring Wisconsin through Food (<i>Grade 4</i>)	35
Lefse, Anyone? (<i>Grade 4</i>)	38
Comparative Tasting (<i>Grades K to 5</i>)	41
Descriptive Word Bank	46
Food Tasting Chart	47
Wisconsin's Cultural Cuisine and Nutrition	48
(Differentiated nutrition lesson for students ages 14 to 21, special education, cognitive disability, and autism.)	
Resources	53
Wisconsin MyPlate	54
Wisconsin Foods	54
Wisconsin Vegetable and Fruits Quiz	64
Wisconsin's Agricultural Rankings	74
Helpful URLs	75
Wisconsin Wednesdays	76
Cafeteria to Classroom to Community Connections	77
Nutrition Color Chart	78



Introduction

What is Nutritious, Delicious, WISCONSIN?

The **Nutritious, Delicious, Wisconsin (NDW)** curriculum is a thematic unit of instruction that uses local foods to teach nutrition concepts to elementary students. *Nutritious, Delicious, Wisconsin* focuses on Wisconsin foods with a connection to Wisconsin's history, culture, and people. The primary goal of this curriculum is to broaden the food experiences of Wisconsin students and provide another aspect to the study of nutrition as part of the study of our great state.

Connecting Nutrition Education and Local Foods

Teaching nutrition to children early and often is the key to developing healthy eating habits. Nutrition education in school promotes healthier eating in students. Students can learn about food and nutrition through multiple disciplines, including math, science, social studies, physical education, health, and other subject areas.

Gardening and bringing local foods into the classroom is an exciting way to engage students in learning. The NDW curriculum connects the cafeteria to the classroom and links nutrition to the core academic subjects of science, mathematics, social studies, and language arts, as well as health, family and consumer education, and physical education. This unit is designed to meet the Wisconsin Model Academic Standards for Nutrition and the overall goals for nutrition education: *Students will gain the knowledge and skills to select a diet that supports health and reduces the risk of illness and future chronic diseases.*

The anticipated outcomes of implementing this *Nutritious, Delicious, Wisconsin Curriculum* include:

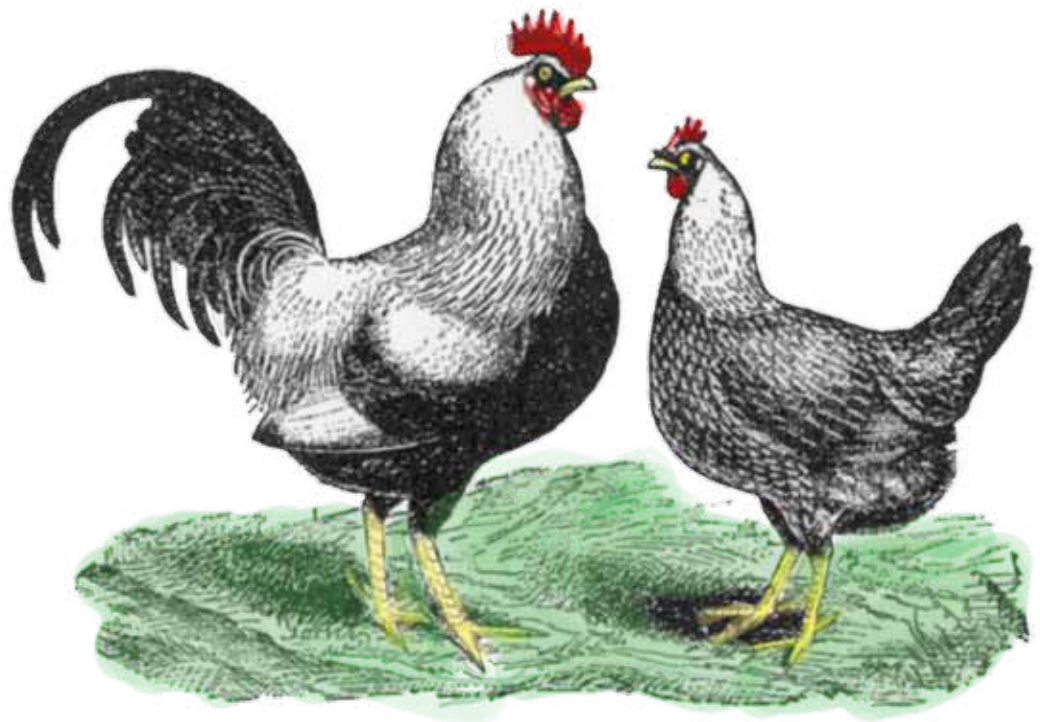
- Increased willingness to taste new foods.
- Increased nutrition knowledge.
- Increased intake of fruits and vegetables.
- Increased intake of vitamins A, C, and fiber.
- Increased appreciation for other cultures.
- Increased likelihood to garden and cook.
- Ability to identify food groups.
- Ability to identify fruits and vegetables, in particular those grown in Wisconsin.



How to Use Nutritious, Delicious, Wisconsin

One of the main objectives of *Nutritious, Delicious, Wisconsin* is to get children excited about healthy eating. These lessons will help in planning nutrition lessons for children that are fun, creative, and challenging in different ways. Children love to contribute to discussions, enjoy activities more than lectures, and are especially fond of lessons that involve food preparation and tasting.

The *Nutritious, Delicious, Wisconsin* lessons are primarily for third through fifth grade students, with a direct correlation to fourth grade Wisconsin studies. Expanded lessons for second through middle school students are provided as supplemental lessons. This curriculum focuses on fresh, local foods. The lessons can be correlated with farm-to-school produce and farmers' market offerings to allow tasting and hands-on experiences. For schools with garden access, *Got Veggies?*, a garden-based nutrition education unit, provides lessons for younger children.



Nutritious, Delicious, WISCONSIN

Lesson plans

Vegetables: parts of a plant

Grades Three to Five

Topic	Six Plant Parts We Eat
Wisconsin Nutrition Performance Standards	C.4.2 Identify a healthy eating habit. E.4.1 Understand that people eat many different foods as part of a healthy diet. F.4.1 Recognize foods by name. F.4.3 Categorize foods by source (plant, animal), including processed foods.
Summary and Key Concepts	Students will learn the six plant parts, and nutritional contributions from plant part foods.

This lesson provides an overview of the six plant parts we eat. It sets the stage for more detailed lessons on Wisconsin plant foods. Additional lessons focusing on each of the six plant parts can be found in the *Got Veggies?* lessons.

Goals and Objectives

Students will be able to:

Identify the six plant parts we eat and give examples.

Identify the nutritional contributions of different plant parts.

Supplies Needed

- Handout: *Six Plant Parts We Eat*.
- Assorted pictures, food models, or examples of fresh vegetables (can be salad items from below) that are roots, leaves, stems, seeds, fruits, and flowers; seed companies, such as Seed Savers (<http://www.seedsavers.org/>) and Johnny's Selected Seeds (<http://www.johnnyseeds.com/c-1-vegetables.aspx>), have some great pictures online to print and use.
- Tasting and salad supplies: (enough items to make six-plant part salad for all to have as a snack)
 - o Stems: asparagus, celery, kohlrabi
 - o Flowers: cauliflower, broccoli (*also stalks are stems*)
 - o Root: radish, beets, carrot, parsnip
 - o Seeds: peas or beans in pod, sunflower seeds
 - o Fruit: eggplant, squash, tomatoes, cucumber
 - o Leaves: lettuces, cabbage, beet tops.
- Bowls, forks, salad dressing of choice.

Anticipatory Set

Review Got Veggies? six plant part lessons (taught in earlier grade levels). Explain how plants and animals need water and sunlight to live. Animals must eat plants and other animals for energy, while plants are able to make their own food (energy) through the process of photosynthesis.

Additional background information for teacher review prior to class discussion of the six plant parts is included here. Wisconsin grown items are in bold typeface, and can be included in the salad ingredients as desired.

Leaves

Most plants' food is made in their leaves. The leaf is one of the green, usually flat parts that grow from a stem or twig of a plant. Leaves are designed to capture sunlight that the plant uses to make food through a process called photosynthesis. The leafy vegetables group includes **salad greens, spinach, collards, kale**, radicchio, and watercress. Leafy vegetables may grow in tight or loose heads, or individually on stems. A few leafy greens, such as **turnip greens** and **beet greens**, are actually the tops of root vegetables. Salad greens, such as lettuce, are usually served raw. Sturdier, more flavorful greens, such as kale and collard greens, also can be served raw, but they are usually served cooked. Most leafy vegetables are low in calories but rich in carotenoids (such as beta carotene), and vitamins C and K. They are good sources of fiber and folate. They provide varying amounts of chlorophyll, iron, and calcium.

Leafy vegetables may be stir-fried or steamed. Leafy vegetables stewed with pork are a traditional dish in Soul Food and southern United States cuisine. They also are commonly eaten in a variety of South Asian dishes such as Saag. Leafy greens can be used to wrap other ingredients like a tortilla. Most leaf vegetables can be eaten raw, for example, in sandwiches or salads.

Flowers and Buds

Flowers produce the fruits we eat, and some flowers themselves are edible, such as the vegetables **broccoli, cauliflower**, and **artichokes**. Most vegetables in this category are great sources of vitamin C, calcium, and potassium. They provide a great supply of dietary fiber. Cauliflower and broccoli also provide cancer-fighting compounds. Flavors are mild to slightly sweet, but can be strong and bitter if grown too long in hot weather. These vegetables are usually eaten alone or served with a range of sauces or other accompaniments.

Seeds and Pods

The vegetables in this category are the parts of plants that store energy. They include **corn** and fresh legumes (edible pod legumes and shell legumes) such as **snap beans, lima beans**, and **green peas**. Generally, seeds and pods contain more protein than other vegetables and contain

more complex carbohydrates than leafy, stalk, or flower vegetables. When these vegetables are immature and freshly picked, their carbohydrate content is in the form of sugars. In time, after harvesting, the sugars turn into starch. **Sunflower** and **pumpkin seeds** are obvious seed foods. Seeds and pods tend to be good sources of B vitamins and the minerals zinc, potassium, magnesium, calcium, and iron.

Roots, Bulbs, and Tubers

The root is the leafless part of a plant usually found underground. Roots act like straws absorbing water and minerals from the soil. Tiny root hairs stick out of the root, helping in the absorption. Roots help to anchor the plant in the soil so it does not fall over. Root vegetables act as the nutrient storehouses of plants. This vegetable group includes taproots (beet, rutabaga, turnip, carrot, celeriac, daikon, jicama, parsnip, radish); tuberous roots (sweet potato, desert yam, cassava, yucca); corms (taro); rhizomes (turmeric, ginseng, arrowroot, ginger); tubers (yams, Jerusalem artichoke or sunchoke, potato); and bulbs (garlic, onion, shallot, fennel). Botany distinguishes true roots such as tuberous roots and taproots from non-roots such as tubers, rhizomes, corms, and bulbs. In ordinary, agricultural, and culinary use, however, "root vegetable" applies to all these types.

These vegetables are considered to be satisfying because they're sturdy and dense. In some cases, the tops of these vegetables (such as beet greens and scallions) contain more nutrients than their roots or bulbs. Root vegetables are generally storage organs, enlarged to store energy in the form of carbohydrates. They differ in the concentration and the balance between sugars, starches, and other types of carbohydrate. Of particular economic importance are those with a high carbohydrate concentration in the form of starch. Starchy root vegetables are important staple foods, particularly in tropical regions. Due to their high starch content, vegetables in this category tend to be higher in calories than most above ground vegetables. Also due to their high starch content, some of these vegetables can act more like simple sugars. This means that they can trigger rapid rises in blood sugar and insulin. When eaten in moderation, these vegetables provide a good source of nutrients. Potatoes are good sources of vitamin C and potassium. Sweet potatoes and carrots are great sources of beta carotene. Radishes and turnips are good sources of fiber and vitamin C. Several studies suggest that onions and garlic may lower blood pressure and cholesterol levels.

Stems and Stalks

- The stem is the main stalk of a plant that transports food and water to the rest of the plant. It acts like the plant's plumbing system, conducting water and nutrients from the roots and food in the form of glucose from the leaves to other plant parts. Stems can be herbaceous like the bendable stem of a daisy or woody like the trunk of a tree.

This vegetable group includes celery, asparagus, kohlrabi, and rhubarb. Sugar maple xylem sap from tree trunks is made into maple sugar and maple syrup. Most vegetables in this category are great sources of vitamin C, calcium, and potassium. They also provide a great supply of dietary fiber. Their flavors are mild to slightly sweet. These vegetables are usually eaten alone or served with a range of sauces or other accompaniments.

Edible stems and stalks

- **Asparagus:** The edible portion is the rapidly emerging stems that arise from the crowns in the early spring.
- **Bamboo:** The edible portion is the young shoot.
- **Broccoli:** The edible portion is stem tissue, flower buds, and some small leaves.
- **Cauliflower:** The edible portion is proliferated stem and flower tissue.
- **Celery:** The whole plant is edible including the crisp petiole (leaf stalk) and the fleshy taproot. It's easy to see the "pipes" that conduct water, nutrients, and glucose in a stalk of celery. The "pipes" can be dyed with food coloring to allow students to easily see them.
- **Cinnamon:** The bark is used as a spice.
- **Garlic:** The edible portion is predominantly swollen leaves with a bit of stem.
- **Ginger root:** The edible portion is a branched underground compressed stem also referred to as a rhizome.
- **Kohlrabi:** The edible portion is an enlarged (swollen) stem. It is a member of the cabbage family and is white, green, or purple in color.
- **Leek:** Similar to other members in the onion family, the edible portion is swollen leaves with a bit of stem.
- **Onion:** The edible portion is swollen leaves with a bit of stem. They are bulbs that, like garlic and leeks, are modified stems in which the primary storage tissue is expanded leaf bases. They come in white, yellow, and red varieties.
- **Potato:** The edible portion is an underground stem that is also a tuber. The "eyes" of the potato are lateral buds. Potatoes come in white, yellow, orange, or purple-colored varieties.
- **Rhubarb:** The red or green stalks are the edible portion; the leaves are toxic.
- **Shallot:** A member of the onion family, the edible portion is mainly swollen leaves with a bit of stem.
- **Sugar cane:** The edible portion is the inner stalk (stem) whose sap is a source of sugar. In its raw form chewing or extraction through a juicer extracts its juice.
- **Sugar maple:** Xylem sap from the tree trunks is made into maple sugar and maple syrup.
- **Taro:** The edible portion is the underground stem (*corm*).

Fruit Vegetables

Fruit provides a covering for seeds. Fruit can be fleshy like an apple or hard like a nut. Eggplants, squash, peppers, pumpkins, and tomatoes are all part of this vegetable group. They are the pulpy, seed-bearing bodies of the plants on which they grow. Technically, in botanical classification, these vegetables are classified as fruits because they are the fleshy part of plants and contain seeds. But since they are commonly used as vegetables, they are categorized as such. Most fruit vegetables are higher in calories than leafy vegetables, stalks, or flowers and tend to be good sources of vitamin C. Since these vegetables offer a variety of flavors and textures that blend well with many dishes, they're useful as seasonings and accents. In many parts of the world, fruit vegetables are staple foods.

The fruit part of a vegetable can be confusing—is it a fruit or a vegetable? “Fruit” and “vegetable” are culinary terms describing different plant foods. Essentially, fruits are sweeter than vegetables. However, “fruit” is technically defined as the part that contains the seeds. Using this botanical definition, fruits include a wide variety from apricots, bananas, and grapes, to bean pods, corn grains, tomatoes, cucumbers, pumpkins, and zucchini. “Vegetables” are the other edible parts of a plant, such as the roots, stems, and leaves.

But at the grocery store and when cooking, less sweet “fruits” like beans, tomatoes, cucumbers, and zucchini are called vegetables. In this lesson, it is acceptable to use the culinary vegetable definition.

Time Line

35 to 45 minutes.

Set Up

- Wash and prepare salad ingredients.
- Print out the attached *Six Plant Parts We Eat* diagram and make copies for students.
- For younger students, or to make it a group activity, you can replicate the drawing on the board or smart board as students lead you through growth of a plant from seed.
- Have pictures or examples of the plant parts available for discussion.

Activity

Bring students together for a group discussion on classifying vegetables.

1. Explain to students that there are many kinds of vegetables, and vegetables provide vitamins, minerals, fiber, and other nutrients. It can be helpful to group vegetables by color, flavor, shape, and taste to learn more about their nutrition and cooking. Nutrition and culinary experts, scientists, and botanists will classify vegetables in another way, too, according to their botanical families or what part of the plant is eaten (such as the root, stalk, or leaves).

2. Ask students to name (or guess if this is new to them) the six plant parts that we eat. Use the pictures or fresh vegetables to demonstrate each example. If they need help, ask: *What plant part is a carrot? (root); What plant part is celery? (stem); What plant part is spinach or lettuce? (leaf); What plant part is cauliflower? (flower); What plant part is an apple or a tomato? (fruit); What plant part is a pea or a corn kernel? (seed).*

Explain that we may eat more than one part of some plants. The root of the beet plant is what most people like to eat, but we also can eat the leaves. We eat the root of the onion plant but can also eat the stems, for a milder flavor.

Discuss how some plant parts are poisonous. The leaves of tomato plants are poisonous, but the fruit part (the tomato itself) is delicious and healthy.

Have students refer to the handout, or use the diagram on the smart board/white board. Write the six plant parts on the board (seeds, roots, stems, leaves, flowers, and fruit). Ask students to identify one or two foods for each of the six plant parts. If possible, have students identify a Wisconsin fruit or vegetable for each plant part. Have students share their answers.

Closure

For a snack, have the group make a Wisconsin Six Plant Part Salad containing all the different parts of plants—tomato (fruit), lettuce or spinach (leaf), asparagus or kohlrabi (stem), broccoli (flower), carrot (root), and sunflower seeds (seed).

Classroom-to-Cafeteria Connection

- Celebrate a vegetable plant part of the month. Have the students determine what plant part we eat with each selection.
- Highlight roots, seeds, stems, and so forth, on the cafeteria menu for the month.
- Have school staff plan activities with the librarian, art teacher, and classroom teachers to support the lessons in the classroom. Interconnections are made when classroom activities include the fruit or vegetable of the month in stories, art projects (stampings, still life drawings, collages), and tastings.
- Create a salad bar with an assortment of plant part samples. Students can make signs and labels for the salad bar items, and even design their own salad.

Extension Activities

- Parent and student activity: Take your child grocery shopping or to a farmers market. Have the child find one fruit or vegetable at the grocery store or farmers market for each part of the plant (root, stems, leaves, and fruit). Where are the freshest Wisconsin foods found in the

grocery store? (Typically on the outside ring of the shopping area.) Is there any store signage to help identify fresh, Wisconsin products?

- Parent newsletter idea: Include information on how to find local farmers markets at the Wisconsin Department of Agriculture, Trade, and Consumer Protection's local foods webpage (Savorwisconsin.com) or Wisconsin's Farm Fresh Atlas (<http://www.farmfreshatlas.org>); share information about the Six Plant Part lesson and recipes.
- Share with students that in 1887, the debate on whether the tomato is a fruit or a vegetable reached the **United States Supreme Court**. The ruling: the tomato is a vegetable. So **legally**, it seems, the tomato is a vegetable, not a fruit. Ask students to express their opinion on this case. Then have students debate or write a persuasive paragraph on whether pumpkins, eggplants, or corn on the cob are fruits or vegetables, and give supporting reasons for their view.

Connection to Other Core Subjects and Curricula

This activity is aligned with WI Model Academic Standards for science:

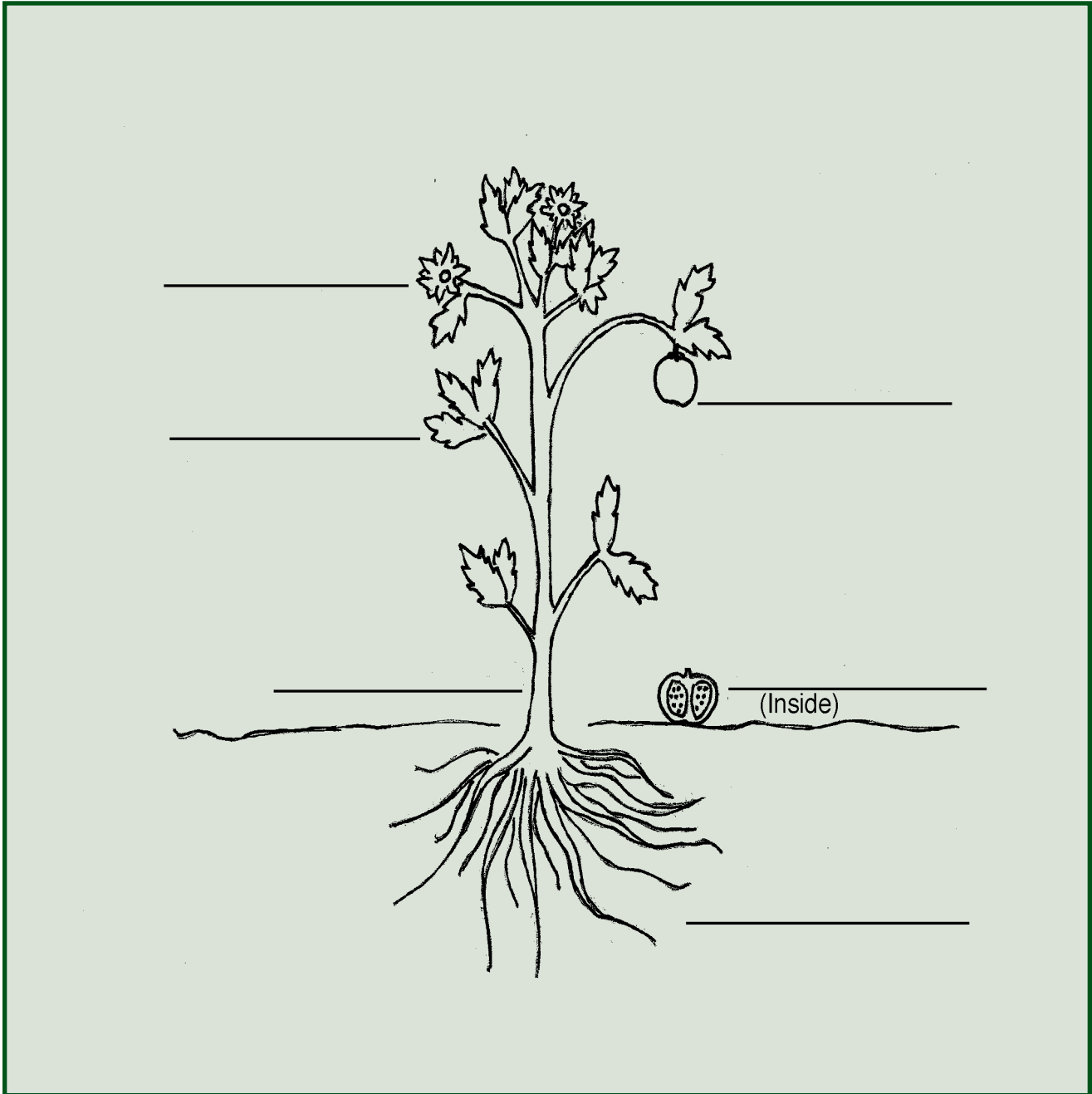
- A.4.5 When studying a science-related problem, decide what changes over time are occurring or have occurred.
- F.4.1 Discover how each organism meets its basic needs for water, nutrients, protection, and energy in order to survive.
- F.4.2 Investigate how organisms, especially plants, respond to both internal cues (the need for water) and external cues (changes in the environment).
- F.4.3 Illustrate the different ways that organisms grow through life stages and survive to produce new members of their type.
- F.4.4 Using the science themes, develop explanations for the connections among living and non-living things in various environments.

Six plant parts We Eat

Label the diagram using the following choices

roots flower stem seeds leaf fruit

Under each label, list a Wisconsin fruit or vegetable as an example to each plant part



Six Plant Part Wraps

Grades Three to Five

Topic	Six Plant Parts We Eat
Wisconsin Nutrition Performance Standards	B.4.4 Trace a food from origin to table. C.4.2 Identify a healthy eating habit. E.4.1 Understand that people eat many different foods as part of a healthy diet. F.4.1 Recognize foods by name. F.4.3 Categorize foods by source (plant, animal), including processed foods.
Summary and Key Concepts	This is a hands-on review and celebration to wrap up the Six Plant Parts We Eat unit. Students make and eat a six plant part tortilla wrap.

This lesson acts as a review for all the previous plant part lessons. Students will prepare a snack that contains all six plant parts. Students will easily identify which food is which plant part after having been through all the previous lessons. Giving students and staff the opportunity to prepare and eat a fresh vegetable snack will allow them to role model and demonstrate healthy eating habits.

Goals and Objectives

Students will be able to

1. Identify the six plant parts we eat.
2. Identify foods that represent the six plant parts we eat.
3. Make some healthy food choices.

Supplies Needed

- Tortillas or pita bread.
- Hummus or cream cheese.
- A variety of colorful vegetables, such as carrots, kohlrabi or celery, spinach, broccoli or cauliflower, cucumber, and red bell pepper (enough for each student to make a wrap).
- Knives, sharp knives for adults, butter knives for students, and cutting boards, as appropriate and if items are not prepared ahead of class.
- Parent volunteers to chop vegetables.
- Plates, napkins, cups, serving dishes, and utensils.
- Six Plant Parts Worksheet (follows lesson), copy for each student.

Anticipatory Set

Review the six plant parts and list them on the board. If you've taught the previous lesson in this unit, then students should be experts at naming these parts in order of development. In this case, you may choose to skip this step and let students start by making their wrap.

Time Line

40 to 50 minutes.

Set Up

- Have the above materials purchased and ready for students.
- If students will not be helping to chop the vegetables, have them washed and prepared ahead of class.
- Have students wash hands.
- Students can help wash items as appropriate, such as spinach, broccoli, and cucumber, and have parent volunteers chop the vegetables in class.

Warm Up Activity

Fruit-Leaves-Stems-and-Roots Activity: Have students stand up and remind them of the active song, "Head, Shoulders, Knees, and Toes." Ask them to touch their heads when you say "fruit," touch their shoulders when you say "leaves," touch their knees when you say "stems," and touch their toes when you say "roots." Sing to the tune of "Head, Shoulders, Knees, and Toes" the following lyrics:

Fruit, leaves, stems, and roots

Stems and roots

Fruit, leaves, stems, and roots

Stems and roots

And sun, and air, and soil, and water

Fruit, leaves, stems, and roots

Stems and roots

Activity

Six Plant Part Tortilla Wrap: Students may choose any ingredients to create a wrap that represents the six plant parts we eat. You'll want to use tortillas or pita bread to hold the veggies, as well as a spread like hummus or cream cheese. Tortillas, pita bread, and hummus are all made with seeds: wheat or corn for tortillas, wheat for pitas, and garbanzo beans for the hummus. Other ingredients may include carrots (root), kohlrabi or celery (stem), spinach (leaf), broccoli or cauliflower (flower), and cucumber or bell pepper (fruit).

Have students wash hands before beginning. Put the ingredients out buffet style and allow students to make their own wrap or pita sandwich. Younger students may need assistance. Give students cups and water as well.

Closure

While students are eating, ask them to identify the plant parts they see on their plate. List them on the worksheet, and brainstorm any other Wisconsin fruits or vegetables that would be good ingredients for a wrap or sandwich. Place them in the proper plant part category on the worksheet.

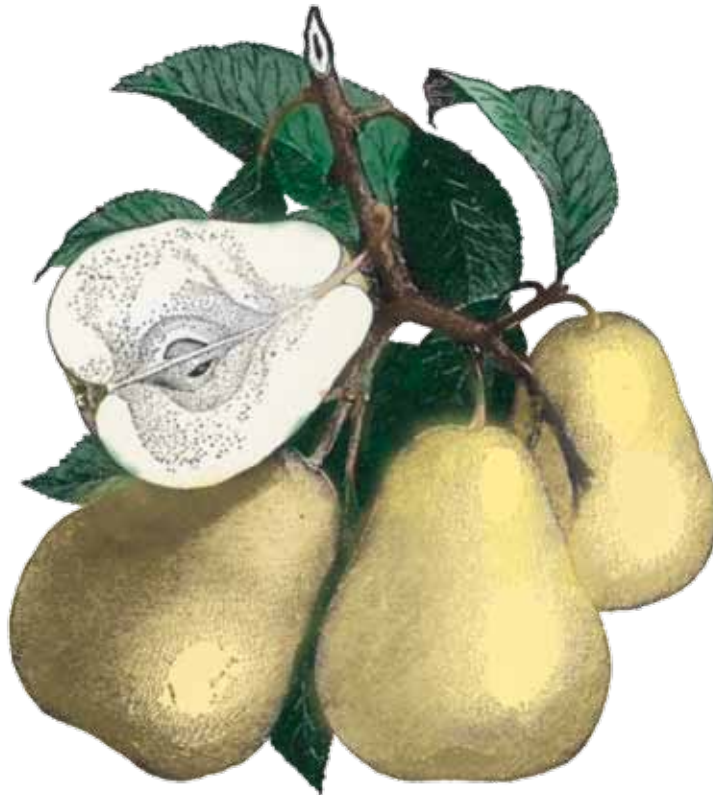
Classroom-to-Cafeteria Connection

Using examples from the Fruits and Vegetables Galore *Tricks of the Trade: Preparing Fruits and Vegetables* manual, set up a six-plant part pasta, potato, salad, or sandwich bar. The Greater Tater n' Salad Bar (page 36 of the manual), Plenty o' Pasta Bar (Page 38), and Stuff a Submarine Salad Bar (page 39) provide ideas to get started. Make signs or have a class make signs for the toppings that identify the plant part for each topping.

Connection to Other Core Subjects and Curricula

This activity is aligned with Wisconsin Standards for Health Education:

- 1:1:A2 Describe healthy behaviors that impact personal health.
- 5:2:A2 List healthy options to health-related issues or problems.
- 5:2:A3 Choose the healthiest option when making a decision.
- 7:1:B1 Describe healthy practices and behaviors that help maintain or improve personal health.
- 7:2:B1 Demonstrate healthy behaviors that will maintain or improve the health of self and others.



Six plant parts Wrap Worksheet

Plant Part	What was in my wrap	Wisconsin Grown Examples	Other ways it can be served, instead of a wrap	Nutrients it provides
Root				
Stem (or stalk)				
Leaves				
Flowers				
Fruit				
Seed				

Growing a Garden Game

Grades Two to Four

Topic	Nutrition for Energy and Growth
Wisconsin Nutrition Performance Standards	A.4.3 Identify the benefits of the relationship between physical activity (using energy) and the need for food and water; state that people need to eat food to have energy and grow.
Summary and Key Concepts	Plants get energy from the sun and need food and water to grow. Students will actively "grow" their garden.

Goals and Objectives

Review with students that all living things need nutrients (energy, food) and water to grow.

Supplies Needed

- Six toy hoops.
- Bean bags (one each of red, yellow, blue, and green make one set; several sets needed per group; additional black or patterned bean bags for optional activity).
- Space to run and move (consider recess, physical education, or an outdoor activity break before or after another outdoor activity, such as journaling, sketching, or gardening).

Anticipatory Set

Talk about what a plant needs to grow (air, water, light, soil). Ask what happens if a plant gets too much or too little of any of these elements. Compare to people's needs and point out that we need to eat food, drink water, and get adequate sleep to grow.

Time Line

This is a 10-minute energy-break activity to get students moving.

Set Up

- Scatter toy hoops throughout the gym or other open area.
- Randomly divide bean bags into several piles. No need to sort by color or divide equally between piles.
- Divide the class into six groups, one group at each toy hoop.
- Inform the students that they will be "planting" a garden. The bean bags will represent what is needed to have a garden grow. The toy hoop represents the garden.

- Have students name what is needed and write the answers on the board. When one of the following is mentioned, circle it and assign the bean bag color:
 - o Yellow=sun (energy to make food)
 - o Blue=water
 - o Red=seed
 - o Green=plant food

Activity

To make their garden “grow,” groups will need one seed, one sun, one water, and one plant food. (One each of red, yellow, blue, and green inside their toy hoops.) Every additional set of bean bags can be counted as an inch of growth.

Groups can send out one person at a time as a messenger to take a bean bag from a pile. The messenger can only carry one bean bag at a time and can take a bean bag from any pile. The team must communicate what color is needed to the messenger. At the end of 10 minutes, students will return to their group and count completed sets to see how much their garden has “grown.” For each red bean bag (seed), have students tell the name of a Wisconsin grown fruit or vegetable they are “growing” in their garden. For even more fun, allow students a free bean bag if they can tell the class a nutrient that their vegetable provides.

Closure

Have students share what they need to grow. Do the vegetables “growing” in their hoop garden help the student’s grow? What do the vegetables provide? (Energy, water/fluid, nutrients.)

Classroom-to-Cafeteria Connection

Provide information on “energy foods” and “energy zappers” in parent newsletters. Energy foods could be foods rich in nutrients, such as the list provided on page 43 of the *Meal Appeal Manual* of the Fruits and Vegetables Galore resource. Highlight food items that are excellent vitamin A, vitamin C, iron, and calcium sources, especially those from Wisconsin on the cafeteria menu.

Optional Activities

For older students, make it more challenging by designating a black or patterned bean bag as a bug or energy zapper. The messenger can drop a black/patterned bean bag in someone else’s hoop and take a green bean bag away. At the end of the game, ask students if they can think of any “energy zappers” that can affect them. (Not enough sleep, poor food choices, dehydration, lacking nutrients.)

Another game option is “My Plate Hoopla.” In this case the toy hoop is the dinner plate, and the bean bags represent each food group from the pyramid. Orange=grains, green=vegetables, purple=meats or beans,

blue=dairy, red=fruits. The object is for teams to gather up bean bags to represent a balanced meal. Organize students in teams of three or four each, one team per toy hoop "plate." Scatter bean bags around the room, and put a few on each "plate." Each team sends out one member to gather up bean bags one at a time and bring back to their hoop. Allow five minutes, and then have groups share what "meal" they made and what foods this represents. If the group is able to name a Wisconsin-grown food for any of the food groups, they get a bonus point. The team with the most points and a complete meal is the champion.

(Adapted from a lesson by Darcie M. Bedtka.)



It's in the Bag

Grades Four to Five

Topic	Nutrition for Growth, Health, and Energy Needs
Wisconsin Nutrition Performance Standard	A.4.4 Match food groups to their primary contribution for a healthy body, realizing that some foods are better fuel than others (nutrient density).
Summary and Key Concept	Students can match food groups to their primary role in the body—grains for energy, fruits and vegetables to prevent illness and heal wounds, milk for strong bones, and meat for muscles and growth.

Goals and Objectives

Students will categorize foods into food groups, determine basic health contributions, and identify if the food is grown or processed in Wisconsin.

Supplies Needed

- Large paper or reusable grocery bags (this will be the "guessing bag").
- Blindfolds (optional).
- A variety of foods (real or plastic foods and food containers, such as a washed yogurt or milk carton) that can be handled by the student, including foods grown and produced in Wisconsin.
- Large box, cooler, or bag to keep the foods out of sight.

Anticipatory Set

This lesson serves as a review after discussions on plant parts, food groups, nutritional contributions from the food groups, and Wisconsin products.

Time Line

One class meeting; continues as long as time allows and there are contestants to play.

Set Up

- Have the supplies out and available.
- Keep all the foods hidden in a box or different bag, so the contestants cannot see them.

Activity

Students take turns being the contestants. The contestant leaves the room while a food is selected by the teacher, shown to the class, and put in the guessing bag. The contestant returns to the class and reaches into the bag (wearing a blindfold or without looking) and tries to guess what food they have grabbed. The rest of the class could help by giving clues. Clues can include what plant part, as discussed in previous Six Plant Part lessons.

When each food is pulled out of the bag, have the class decide the food group to which it belongs. Students should tell why each food goes where they put it. If it is a plant, have students also classify the plant part.

As each food is placed in its group, discuss what each food does for our bodies: Dairy provides calcium for bones; proteins (meats, fish, nuts, seeds) provides the protein building blocks for muscle; fruits and vegetables help us heal and keep eyes, hair, and skin healthy; and grains (bread, cereal, rice, and pasta) give us energy to work and play. Mention that fats and oils are needed in very small amounts for healthy growth, but too much fat in the diet will cause some health problems. Have students identify if the food is grown and/or processed in Wisconsin. The contestant who just guessed will then select the next contestant.

Closure

Recap any areas of confusion and highlight exceptional clues and guesses from the game.

Extension and Review Activity

Play the same game with students, except have several bags (three to five bags suggested) with items in them. Number the bags for ease of discussion. Prepare a list of written clues for each item that can be read to the class. Put each item in a bag before class, so students will not know what is in each bag. To get started, have all students stand up. Read the clues for bag number one. Students can either list possible guesses for the item, or have a prepared list of possible items in the bag. Instruct students to sit down when their answer choice on the list is read. Read the list so that the correct answer is the last student(s) standing. Repeat this process for each bag. Continue until all the items in the bags have been revealed. Recap the nutritional value of each item, and where it is grown.

Classroom-to-Cafeteria Connection

Enlist help from the school principal and school student council to come up with clues for a mystery Wisconsin food item on the menu for Wisconsin Wednesday. Provide clues during the week (start on Thursday with new clues) and reveal the mystery food each Wednesday.

(Adapted from: CHSE/U.S. Department of Health and Human Services.)

Super Snacking— Feel Good! Be Smart! Look Good!

Grades Four to Five

Topics	Nutrition for Energy and Growth Identification and Classification of Food
Wisconsin Nutrition Performance Standards	<p>A.4.2 Identify feeling hungry vs. feeling full/satisfied.</p> <p>A.4.3 Identify the benefits of the relationship between physical activity (using energy) and the need to have food and water; state that people need to eat food to have energy and grow.</p> <p>A.4.4 Match food groups to their primary contribution for a healthy body, realizing that some foods are better fuel than others (nutrient density).</p> <p>F.4.4 Identify the basic food groups, and give examples from each group for meals and snacks.</p>
Summary and Key Concepts	Introduce connections between food choices and growth, health, and energy at an age-appropriate level. Nutrition is important to feeling good, growing strong, and looking good. Demonstrate the pleasurable aspects of healthy dietary choices. Review the five food groups and how to make a variety of healthy snacks.

Goals and Objectives

Introduce connections between food choices and growth, health, and energy at an age-appropriate level. Involve students in hands-on activities. Demonstrate the pleasurable aspects of healthy dietary choices. Promote trying new experiences. Promote sharing and community building values.

Supplies Needed

- MyPlate large poster with space to write in each food group.
- Individual small MyPlate posters (or placemats).
- Colored construction paper, orange, green, red, blue, purple, and yellow.
- Small table or work space for each group of students.
- Separate table area for foods.
- A variety of foods, including Wisconsin products, for classifying and tasting:

- o Corn cereal (Chex, Corn Bran) made with corn meal, whole grain corn, and corn starch;
- o Cheerios or other oat cereal made from whole grain oats, modified corn starch, and oat bran;
- o Pretzels made from wheat flour;
- o Popcorn, cheese popcorn (contains popcorn), cheddar cheese, soybean oil, and buttermilk powder;
- o Dried or fresh apples;
- o Dried or fresh cherries (caution with pits);
- o Dried cranberries;
- o Roasted soy nuts made from roasted soybeans and sunflower oil;
- o Potato crisps made with potatoes;
- o Sunflower seeds;
- o Pumpkin seeds, washed and roasted;
- o Yogurt, cheese cubes, milk;
- o Carrot sticks;
- o Kohlrabi sticks;
- o Green beans;
- o Sugar snap peas;
- o Soy beans (edamame); and
- o Berries, in season (raspberries, blackberries, blueberries, strawberries).

Anticipatory Set

The best time to do this activity is mid-morning, mid-afternoon, or right after school, when many kids and adults need a snack. Ask if anyone has ever felt really hungry, irritable, and less able to concentrate close to lunch time. Discuss with students that teachers have noticed as the school day gets closer to lunch time, many students feel hungry, crabby, low energy, or unable to concentrate. Discuss why that might happen and how what we eat can help us to feel better.

Time Line

One class meeting of up to 45 minutes.

Set Up

- Hang up the MyPlate poster.
- Label colored construction paper (orange, green, red, blue, and purple) to match the MyPlate food groups.
- Write key contributions for each food group, such as energy, good eyesight, strong muscles, beautiful skin, and smart brains on the corresponding paper. Set up workstations with sets to include all five food groups.

- Portion the snack foods in cups for appropriate serving sizes. See list above. Make sure you have accounted for food allergies or restrictions.

Activity

Introduce MyPlate. Point out different food groups on the plate. Review what is in each food group and write on the board some ideas what those foods do for us. Call on students to tell what foods that they eat and where they might fit on the plate. Write what they report under appropriate food group sections on the poster.

Instruct students to write the foods in the appropriate section on their own MyPlate placemat. Point out some additional foods, including the foods already out on the table. Point out foods that are locally grown.

Have students select some foods from the snack table. Ask students to taste the foods and think about how they feel after eating these snacks (hungry? full? satisfied?).

Have students go to prearranged workstations in teams of three or four students each. Each table should include the large color-coded construction paper sheets, labeled for each food group. Ask each team to try to figure out where in the food groups each snack food belongs. The papers are cued with words like energy, good eyesight, strong muscles, beautiful skin, and smart brains to help students realize the benefits of eating these foods. Referring to MyPlate, have the student place the snack foods on the appropriate color and labeled food group papers. Challenge students to see which team can get the most foods in the right food group. Review and make changes as needed. Discuss how these foods benefit students.

Extension Activities

- Have students make their own Wisconsin MyPlate by placing Wisconsin grown and produced foods into the proper food group. Use a blank MyPlate sheet for this activity.
- Have students make up their own Wisconsin snack using the foods shown above. Have them name their snack and write the recipe for it. Then have students come up with an advertisement poster for their snack, including the snack name and nutritional benefits.

Closure

Encourage sharing of each other's snack combinations. Ask students how they think they would feel after eating these snacks.

Classroom-to-Cafeteria Connection

Post student Wisconsin MyPlate worksheets and snack advertisement posters in the cafeteria.

(Adapted from a lesson by Glorie Salas.)

Variety and Where Food Comes From

Grades Four to Seven

Topics	Nutrition for Energy and Growth Critical Thinking and Practical Reasoning Nutrition for Health, Promotion of Healthy Behaviors Diversity
Wisconsin Nutrition Performance Standards	A.4.1 Identify why people need to eat different kinds of food. A.8.1 Explain the concepts of variety, moderation, and balance, and balancing caloric intake and energy expenditure. C.8.7 Demonstrate how to use food labels to make healthier choices. D.4.1 Understand the concept of variety and identify that eating a variety of foods is important to health. E.4.1 Understand that people eat many different foods as part of a healthy diet.
Summary and Key Concepts	Students will become aware from where their food comes.

Goals and Objectives

Students will understand that there is a wide variety of food choices available, including many from local Wisconsin sources.

Supplies Needed

A blank Wisconsin map for each student.

- Crayons or colored pencils.
- Wisconsin Food Groups List, Wisconsin MyPlate.

Anticipatory Set

Review previous discussions on variety of food and health.

Time Line

One to two class meetings to review, research, and share results. Up to one week between classes can be given as time to conduct the "food geography" project.

Set Up

- Have resource materials available. This can be an out-of-class project assignment.
- Online resources to bookmark ahead of class:
 - o http://www.savorwisconsin.com/resources/grow_guide.asp

- o <http://100milediet.org/get-started/map>
- o <http://eatlocalmilwaukee.org/scavengerhunt.pdf>
- o <http://www.eatlocalchallenge.com/>.

Activity

Tell students they are going to be food geographers. Over the next week, weekend, or other specified time frame before the next class, instruct students to read food packages, grocery store signage, and fruit/vegetable stickers to see from where the food they eat comes.

Have students record the foods and the origins of the foods they are putting on their lists. Instruct students to include at least 25 foods on their list and include at least 8 fruits and vegetables in this list. It may be challenging for students to determine the origin of produce or bulk foods. Encourage them to enlist the help of parents whenever possible. It is fine to list the origin as “unknown.” Students will need to bring their list to the next class.

Using the list of foods each student has collected, have students identify foods that are grown in Wisconsin or within a 100- or 200-mile radius from school. This is how “locally grown” will be defined for this lesson. Have students use encyclopedias, food labels, Internet, grocery store information, and other resources to confirm sources for unknown origins, and to list which food products from their lists also could be grown or produced in Wisconsin. Are there foods that are locally grown that would be healthy alternatives to other foods on their lists?

Have students determine if there are specific areas of the state where certain foods are grown, processed, and prepared. On the map, students should draw and label where at least five different fruits or vegetables are grown in the state. Students should also draw and label at least three locations where foods are prepared or processed. (Adjust expectations according to your grade.)

Closure

Explain that we need a variety of climates and growing conditions to provide a variety of food products. What would our diet look like if we could only eat foods that are grown 100 miles from our house or only from Wisconsin? What would our meals be like? Would we be able to eat a variety of nutritional foods? Discuss why or why not. (Seasonality also can be discussed.)

Classroom-to-Cafeteria Connection

Identify locally grown and Wisconsin grown foods on the cafeteria menu.

Connection to Other Core Subjects and Curricula

This activity aligns with curricula in geography, social studies, and Wisconsin studies.

Extension Activity

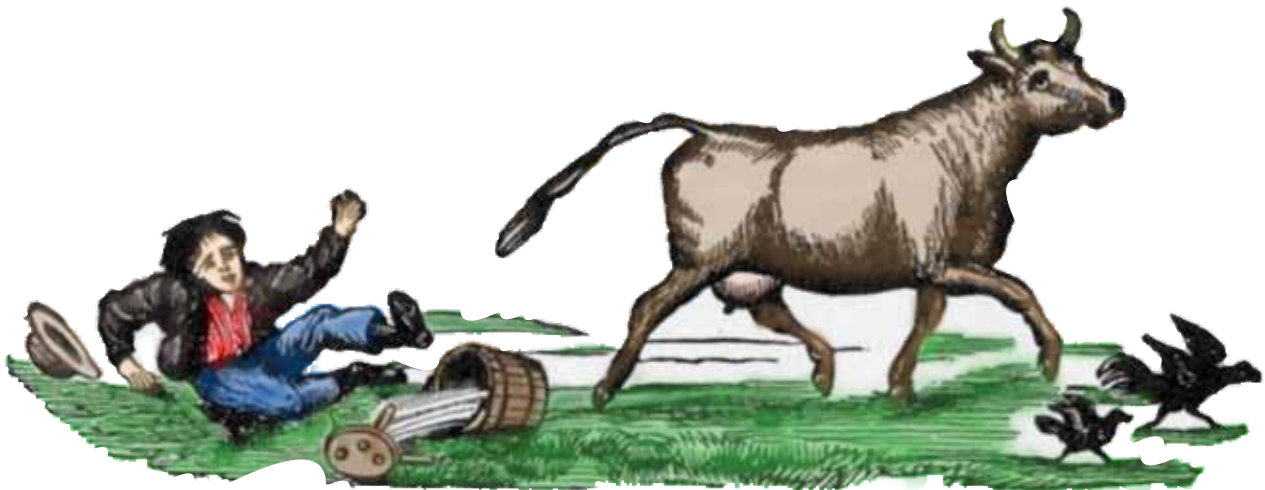
Foods Fair Project: This extension activity can be assigned as a project for each student or in teams of two. Students research an assigned food (fruit, vegetable, or other Wisconsin-grown products) and prepare a presentation or table-top display.

Students will research classification; selection of fruit or vegetable (how to purchase, what to look for, how to tell if ripe, price); various forms (fresh, frozen, canned, dried); nutritional value; where grown and what the growing season is; where and how the food is processed, stored, prepared; how to cook, serve, and eat the food. Have students calculate how many miles the food travelled from where grown to school.

Each student will prepare a written report citing at least three resources and a five-minute PowerPoint® presentation or table-top display. Students will share two recipes for the fruit or vegetable with the class. You may include the option to prepare the recipe and sample the product. (Note: Consider this in fall, as a way to celebrate the harvest.)

Have a food fair day where students share their presentations or set up the displays for other students and parents to view, ask questions, and learn about a variety of fruits, vegetables, and locally grown foods. Have students share how many miles their food item travelled to get from the farmer to the school cafeteria table.

Grade students on their presentation, use of resources, creativity, accuracy of information, and overall appeal of their PowerPoint® or table-top display.



Milk From Cow to You

Grades Two to Four

Topic	Food Safety
Wisconsin Nutrition Performance Standards	B.4.4 Trace a food from origin to table. B.4.5 Describe a food chain.
Summary and Key Concepts	Throughout this activity, students will learn how milk gets from the cow to the dinner table. It explores how milk is kept fresh and safe, and the different kinds of milk and dairy products.

Goals and Objectives

Students will follow a food from origin to table.

Supplies Needed

- Access to websites:
 - <http://kidzzone.wisdairy.com/>; and
 - <http://www.wmmb.com/wdc/MarketingMaterials.aspx> (to order handouts).
- Smart board or projector for Internet viewing.
- Small cups (two to three ounces) for tasting; variety of milks and dairy products (nonfat, 1 percent, 2 percent, whole, cream).
- Cartons of milk served at school (can use this for tasting).

Time Line

One class meeting.

Set Up

- Check for any dairy, lactose, or casein allergies or intolerances in your class. These students will need an alternate activity.
- Distribute the handout "Milk from Cow to You."
- Use a smart board or PowerPoint® projector to view the website and discuss as a class.

Activity

Discuss what a dairy farmer does. What is a typical dairy farmer's day like? If any students live on a farm, or have relatives that do, they can share what happens on the farm. Ask where milk comes from.

Explain that every day, dairy farmers give their cows water to drink and a mixture of hay and grains to eat. Cows' bodies turn this food into milk. Two or three times a day, farmers milk their cows using a special machine attached to the cows' udders. Milk is then stored in a refrigerated tank on the farm. Farmers test the milk to make sure it is wholesome. Every other day or so, trucks visit each dairy farm to pick up the milk and take it to

a factory. At the factory, workers test the milk again. Milk is pasteurized, which means it is heated up to kill any germs it may contain. Milk is also poured through tiny holes to break up solid particles. This process is called homogenization. Workers then put the milk into containers. Cartons and jugs of milk are sent to restaurants, schools, and stores, where you can buy it to drink.

Open an Internet browser, go to <http://kidzzone.wisdairy.com/>, and click on Dairy Farm Tour.

Read aloud about the different steps to get the milk from the cow to you. Have students follow along on their handouts.

Ask students to listen carefully to the steps so they can remember what happens in the correct order.

Closure

Review with students that milk is not touched by humans, it is constantly refrigerated, and it goes through several safety and quality checks. Taste dairy products. What do the students like best? Point out that nonfat milk and one percent milk are healthy beverages to help children grow.

Classroom-to-Cafeteria Connection

Show students the cartons of what is served at school meals, so they can identify the milk available to them.

Extension Activities

- Students can draw pictures for each of the events to process milk or make cheese.
- Students can visit <http://kidzzone.wisdairy.com/> for activities and quizzes.
- Check the dates on dairy products. What happens when milk is not refrigerated? Leave out a small cup of milk, and have the students check it to see.
- Tour a farm, milk/dairy plant, or cheese plant.
- Visit http://video.discovermediaworks.com/WMMB_DW_ITO/player.htm for a video on the art and science of Wisconsin cheese making.



Where Does Food Come From?

Grades One to Four

Topic	Food Safety
Wisconsin Nutrition Performance Standards	B.4.4 Trace a food from origin to table. B.4.5 Describe a food chain.
Summary and Key Concepts	Students explore the role plants and animals play in the bigger picture of life on earth.

Goals and Objectives

Students will explore the origin of food. This lesson is primarily for younger students, but works well as a reading or science buddy project to pair up students of different ages.

Supplies Needed

- Suggested Books: Where Food Comes From by David Suzuki and Barbara Heiner, and Growing Vegetable Soup by Lois Elbert for younger grades.
- Glass jars.
- Construction paper, poster board.
- Markers and writing supplies.
- Paper towels.
- Mung beans.
- Space to put the mung bean jars (in or near a window, table under grow light).

Anticipatory Set

Discuss how plants are one of our main food sources and point out that we eat many parts of plants.

Time Line

Two class meetings and additional observation time.

Set Up

Prepare space for the mung bean jars (window, grow light).

Activity

Day 1: Where does food come from?

- For younger students, read one of the suggested books. Older students can read the book with a younger reading buddy, too. With all students, discuss names of plants they eat.
- Challenge students to share any farm stories or stories about growing food.

- Remind students that everybody tries new foods at some time. Have them discuss or share stories about times when they tried new foods.
- Students can draw or write about foods they like and where they come from. For example, they might draw an apple and an apple tree.
- Divide the students into teams of taste buddies. Have them explore how food gets to them by asking them to trace the origins of a favorite food.
- Once they trace the steps in the process, have them make posters illustrating the journey their food has to make to get to the table. It might be easier for them to trace backwards, from their plates to the kitchen to the store, and so on. They may need questions to help them: Does anyone prepare and cook the food? Who buys it? What happens on the farm?
- Have the students present their posters to the class.

Day 2: Wrap it up—watch food grow.

- Tell students that they will have a chance to plant a seed and observe how it grows.
- Distribute a glass jar to each team.
- Line the inside of the jar with construction paper.
- Wet some tissues and place them in the jar.
- Place the mung beans between the construction paper and the side of the jar where you can see the beans easily.
- Keep the tissues wet and watch what happens over the next few days.
- Have older students keep a journal of their plant observations. They can write about what they see and draw pictures of their seeds and sprouts. They will identify basic parts, including the roots and stems. Ask them to identify which way the roots and stems grow and hypothesize why.

Closure

Have a snack of mung bean sprouts (purchased and washed prior to class).

Classroom-to-Cafeteria Connection

Discuss with students where they think the food in the grocery store, served at school, or at home is grown and processed. Review the school breakfast and lunch menus, and have students pick out foods that are grown in Wisconsin. Have the food service department share the origins of the items on the menu through signage or menu descriptions.

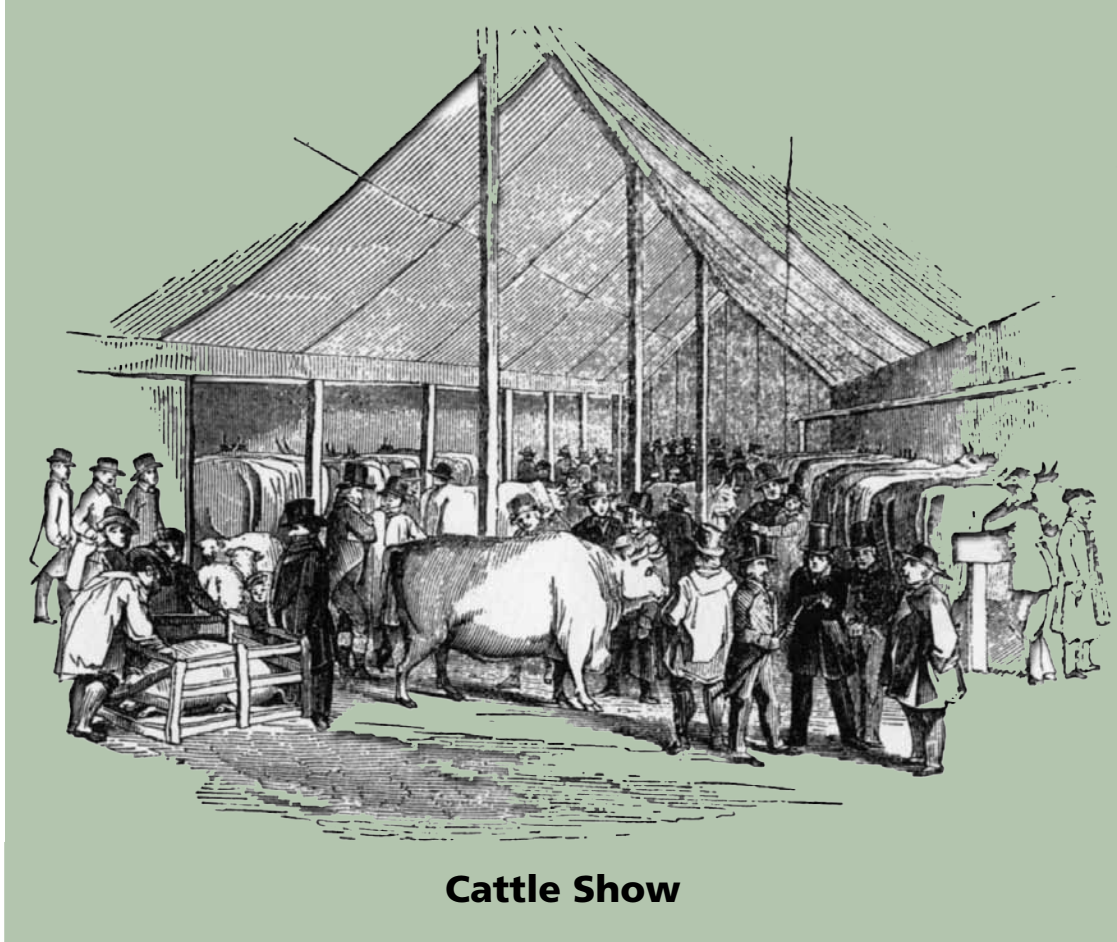
Extension Activity

Ask children if they know what plants eat. Explain that they can help feed plants by making more soil through composting. Have them fill up a clear glass jar with layers of garden soil, leaves, and twigs (twigs allow air into the compost). Have them place raw vegetables, cooked vegetables, plastic, and metal in the jar against the glass. Over time they can observe which elements return to the soil as compost.

Connection to Other Core Subjects and Curricula

Activity is aligned with curricula in science and language arts.

(Adapted from Team Nutrition's Food Time Kit.)



Shopping for Nutrition

Grades Four to Five

Topics	Nutrition for Health Promotion of Healthy Behaviors
Wisconsin Nutrition Performance Standards	D.4.1 Understand the concept of variety, and identify that eating a variety of foods is important to health. D.4.2 Describe the consequences of overeating. D.4.3 Identify sources of fat, sugar, salt, fiber, protein, and calcium in the diet. D.4.4 Recognize the relationship between diet and chronic diseases, such as blood pressure, heart disease, obesity, and tooth decay.
Summary and Key Concepts	Students will select foods to meet different nutrition criteria.

Goals and Objectives

Students will use the worksheet to shop for items that fit their grocery lists. This can be done with food cards and labels or as a home connection assignment that students are to do at home or in the grocery store.

Supplies Needed

- Grocery list handout.
- Food labels or food cards.

Anticipatory Set

Review and discuss food groups, basic label reading, and some nutrient information.

Time Line

Fifteen minutes.

Set Up

- Provide the worksheet for each student.
- Have labels, food cards available, or have students complete at home or grocery store.

Activity

Students will use the worksheet to “shop” for items that fit their grocery lists. This can be done with food cards and labels or as a home connection assignment to do at home or in the grocery store. Can they find foods that were grown or processed in Wisconsin to meet the list requirements? Complete the first item on the list together as an example. Vitamin C foods that are grown in Wisconsin include potatoes, bell peppers (all

colors), broccoli, kale, cauliflower, strawberries, Brussels sprouts, chard, cabbage, spinach, snow peas, tomatoes, zucchini, raspberries, asparagus. These would be circled. Other vitamin C foods not grown in Wisconsin include citrus (lemons, oranges, limes, grapefruit, tangerines), kiwi fruit, mango, pineapple, and papaya.

Closure

Ask students if it was easy to select the foods on the list? Why or why not?



Name: _____

List foods that are good sources of the nutrient listed and fit the descriptions on your grocery list. Be sure to check labels to confirm your choices as "good sources." Circle any Wisconsin-produced foods. Be prepared to explain your choices in class.

Grocery List—Can you list foods that are. . .

Vitamin C foods	
Protein foods	
Vitamin A foods	
High fiber foods	
Healthy snacks	
Something for breakfast	
Something for lunch	
Calcium-rich foods	
Iron-rich foods	
Complex carbohydrate foods	
Folic acid foods	
Good foods to take on a picnic	
Fun foods for a party	
Bonus What are some good foods to eat if you are going on a long bike ride? Why?	

Exploring Wisconsin Through Food

Grade Four

Content Standard	Diversity
Wisconsin Nutrition Performance Standard	E.4.3 Identify examples of cultures and their food customs and habits. E.4.5 Describe how food choices are influenced by availability, individual and family preferences, media, and background.
Summary and Key Concept	Children expand the range of food they eat as they try foods from various cultures.

Goals and Objectives

Wisconsin residents came from many countries to settle the state. We eat many kinds of foods that may have originated in other countries, as well as our own unique Wisconsin foods that have developed as the state's population and diversity grows. Tasting a variety of new foods allows children to expand

Supplies Needed

- Wisconsin map (<http://www.enchantedlearning.com/usa/states/wisconsin/outline/>).
- White board/markers or flip chart.
- Large world map, globe.
- Pictures of each student.
- Yarn in a variety of colors, colored paper, and push pins.

Anticipatory Set

Students will need to have completed a genealogy project previously, or at least have made a list of countries from where their ancestors came from.

Websites to provide additional information:

<http://www.nal.usda.gov/fnic/pubs/bibs/gen/ethnic.pdf>

<http://www.lkwdpl.org/lhs/foreignfoods/>

http://www.pbs.org/opb/meaningoffood/classroom/pop-lesson_plan.shtml

http://www.apl.wisc.edu/publications/APL_Rural_Immigration_Summit.pdf

<http://www.wisconsinhistory.org/turningpoints/subtopic.asp?tid=4>.

Time Line

Thirty minutes; additional time for expanded activities.

Set Up

Prior to class, have the map posted on a bulletin board with the students' pictures posted around the map.

Activity

Explain that people from different countries have shared foods throughout history. For example, pasta, including spaghetti, came to this country from Italy and was brought to Italy from China by Marco Polo. Explain that when people move, they bring favorite recipes with them, and will grow and prepare their favorite foods in their new land.

In America and Wisconsin, we have many people from different backgrounds, different traditions, and different foods that they eat. We call this culture. There are many delicious, nutritious, and fun foods to try from different cultures.

Review the changing population and immigration of people into Wisconsin, and how this can be related to food choices and preferences. Ask students if they know of any foods or recipes that come from other cultures and countries. Look for that country on the globe or map. List the foods and countries on the white board. Challenge students to think about cultural foods and Wisconsin traditions. (For example, fish fries and fish boils, brat festivals.) How are these food traditions relevant to the cultural groups in the community? Are these foods eaten regularly as part of a healthy diet or are they foods that are best eaten only occasionally ("sometimes" foods)?

Go to the large world map posted on a bulletin board. Have students trace their ancestry with different colors of yarn connecting from each student's picture to countries of ancestry. (Connect the yarn with push pins.) Have students graph the number of students from each country.

Assignment project: Have students explore all the food cultures in your classroom. Let everyone talk about the food habits and customs of their families. Ask your students to research one country in their own ancestry, share a recipe or food from that country, and also depict a cultural event or tradition through a poster. Ask students to identify any food traditions that their ancestors might have brought with them when they came to Wisconsin. Does this include any special foods for celebrations and special events? If so, what foods are part of the celebrations?

Closure

Review the need for a variety of foods each day from all of the food groups.

Extension Activity

Have students plan a Wisconsin dinner or feast and invite parents and caregivers.

Connections to Other Core Subjects and Curricula

Make connections to other core subjects with the following activities:

Reading/Language Arts—Read folk tales from the countries students have identified in their ancestry.

Social Studies—Discuss more about the people of Wisconsin and immigration into Wisconsin.

Geography—Practice map skills by locating countries on a map.

Mathematics—Use plotting and graphing skills by having students create and label a graph.



Lefse, Anyone?

Grade Four

Topic	Diversity
Wisconsin Nutrition Performance Standards	E.4.1 Understand that people eat many different foods as part of a healthy diet. E.4.3 Identify examples of cultures and their food customs and habits.
Summary and Key Concepts	Lefse is a Norwegian food, enjoyed by many people in Wisconsin at holidays and celebrations.

Goals and Objectives

Lefse is a soft, flat, type of bread. When Norwegians settled in Wisconsin, they brought lefse along with them. Many people enjoy the Norwegian traditions of making and eating lefse during the holidays. Throughout this activity, students will learn how lefse is made, its historical importance in Norwegian culture, and how it has been used.

Supplies Needed

- Lefse making supplies or pictures of supplies.
- Lefse to taste.
- Butter (optional: sugar, cinnamon).
- Paper plates, napkins, plastic knives.

Anticipatory Set

Explain that when settlers came to Wisconsin, they brought their traditions and foods with them.

Time Line

One class meeting.

Set Up

- Lefse to sample is set out.
- Tools and pictures are available to share.

Activity

Introduce lefse, a traditional Norwegian flatbread made from potatoes, milk or cream, shortening or lard, and flour. Show lefse if possible. Show students where Norway is on a map.

Discuss the special cooking tools (a ricer, a thin, grooved rolling pin, and wooden turning sticks) and a griddle that are needed to cook lefse. Show cooking tools or pictures of tools. Lefse is made by ricing potatoes (shredding very fine) and making dough rolled very thin and cooked on a griddle. It is soft and a lot like a tortilla.

There are many ways of eating lefse—spread with butter and rolled up to eat, called “lefse-klenning” in Norway. The lefse also can be sprinkled with sugar and cinnamon before rolling up. (This is the traditional way settlers from central Norway ate their lefse.) Other options include spreading jelly or lingonberries, or a thin layer of peanut butter and sugar on the lefse before rolling. Other sweet variations are butter and brown sugar, maple syrup, honey, or corn syrup. Lefse filled with ham and eggs, beef, sausage, and other savory items makes a tasty sandwich. Lefse is a traditional accompaniment to lutefisk, a fish that is often rolled up in the lefse.

Try lefse as a class. Have students try it plain and with butter. Ask the class:

- *Has anyone tried lefse? Does it remind them of any other food they have eaten?*
- *Is lefse similar to other foods (tortilla, potato pancakes)? Is it eaten the same way?*
- *Has anyone made lefse or attended a gathering where lefse was prepared?*
- *How is lefse eaten in Norway or at Norwegian festivals or at the holidays? (Buttered, sprinkled with sugar and rolled up, or with lutefisk.) Are there other ways to eat lefse?*
- *What food group is lefse in?*

Closure

Discuss with students any special foods they have during the holidays, if any. There are probably many different traditions in the class. Discuss whether students around the world eat the same or different foods. Ask if there are any ideas why. Ask students if they know of and/or have eaten foods that originally came from another country. Discuss how different cultures include different foods. What foods are grown in other countries? What happens when people travel or move? Do they bring foods with them?

Classroom-to-Cafeteria Connection

- Have students identify cultural foods that are served as part of school meals.
- School staff and the food service director can work together to plan cultural theme days, and include foods on the menu that relate to the day’s learning activities and events.

Expansion Activities

Discuss how the United States has been called a melting pot because so many people and cultures make up the country and blend to become Americans. Some people call it a salad bowl, since like a salad, our culture has many ingredients. None of our cultural ingredients lose their defining character, but all contribute to the flavor of American society.

Choose another food that is important to a cultural group in the community. Examples include:

- **Native American:** wild rice, fry bread, succotash, maple syrup, cranberry
- **Mexican Americans:** tamale, tortilla, salsa
- **Hmong Americans:** noodle dishes, Hmong eggrolls, sausage lettuce wrap
- **African Americans:** greens, black-eyed peas, grits, pork, soul food
- **German:** sausage, cabbage, potatoes, bread

Have students interview their family members or friends about foods or recipes that are important to them and their culture. Do they cook a special food or meal at celebrations and holidays? Do they associate a specific food with family members or cherished memories? Have students choose one food that represents their family or culture, and investigate the reasons for its importance. Encourage them to find out more about the food and its history.



Comparative Tasting

Grades K to Five

Topic	Identification and Classification of Foods
Wisconsin Nutrition Performance Standards	F.4.1 Recognize foods by name. F.4.2 Describe different kinds of food (by physical and sensory characteristics—shape, taste, color, texture, etc.). F.4.3 Categorize foods by source (plant, animal), including processed foods. F.4.4 Identify the basic food groups, and give examples from each group for meals and snacks.
Summary and Key Concepts	Students taste, compare, and describe related foods.

Goals and Objectives

The main goals of this lesson are to expose students to new foods and encourage them to compare, describe, and think about food beyond whether they like it or not. The descriptive activity is a fun way to familiarize students with a variety of fruits and vegetables using color, texture, and other distinguishing characteristics. Students are encouraged to use specific vocabulary to describe these characteristics.

Students will

1. Taste and compare a variety of fruits and vegetables.
2. Use descriptive language to identify specific characteristics of fruits and vegetables.
3. Identify how these foods are related, alike, and different.
4. Identify foods that are part of a healthy diet.

Supplies Needed

- The Team Nutrition book *Fruits and Vegetables Galore*, Helping Kids Eat More has posters to hang in the cafeteria and classroom. (Available free from USDA Team Nutrition.)
- Choose four or five varieties of related foods (consider color and texture groupings). See Set Up, below, for suggestions. Consider asking volunteer parents to help with food preparation.
- Plates, napkins, colander, knife, and cutting board (as needed).
- Copies of the Comparative Tasting Chart (third through fifth grade) for each student.

Anticipatory Set

This lesson can vary with seasonal produce. In early September, try local tomatoes. Contrary to what some adults think, with encouragement many children will eat and enjoy fresh, local tomatoes. One activity is to have students taste and compare four varieties of tomatoes from a local farm, farmers market, or their school garden. In October and November, taste test four different types of apples for this lesson. In December and January consider using a variety of root vegetables or cucurbits. In Wisconsin, a variety of squashes, potatoes, and beets are readily available and fun to try. In spring, asparagus, radishes, and greens (or whatever is available from local farmers at the time) works well.

You may choose to do a food family tasting using a variety of related vegetables such as cucurbits (vegetables in the squash family) or brassicas (cole crops, such as broccoli, cauliflower, cabbage, kohlrabi, and turnips).

Tell students they will taste four different foods. Some may be familiar and some will probably be new. Ask students to use their five senses in order to go beyond “yum” or “yuck” in describing specific flavors, smells, textures, and appearances of food. Use the word bank for helpful suggestions. Local, seasonal food should be used for this lesson whenever possible.

Time Line

About 30 to 45 minutes.

Set Up

- Collect or purchase all the necessary supplies. Include different varieties of vegetables and fruits grown in Wisconsin (or grown in the school garden) that represent different colors (e.g., orange: carrots, sweet potatoes, butternut squash, pumpkin; purple: eggplant, kohlrabi, purple carrots, blackberries; red: purple or red cabbage, radishes, tomatoes, strawberries, raspberries, apples, cherries, watermelon; yellow: yellow carrots, sweet corn, Yukon gold potatoes, summer squash, yellow tomatoes; green: collard greens, asparagus, kale, broccoli, green peas, zucchini, spinach, cucumbers; white: cauliflower, white potatoes; blue: blueberries.
- Wash and prep fruits and vegetables as needed. Use colander as needed to rinse berries and let dry. If possible, delay slicing the fruits and vegetables until just before tasting to preserve freshness. Avoid putting the items to taste in the refrigerator, as it dulls the flavor and changes the texture.
- Print a copy of the included comparative tasting chart and word bank for each student.

Activity

The introduction to this lesson will depend on the foods you are using. Have students look at the fruits and vegetables. Can they describe the appearance? Are they similar in any way?

For apple or tomato tastings, discuss how fruits grow and develop. Ask students to share memorable experiences they've had eating or harvesting apples or tomatoes. Talk about the different ways we eat apples and tomatoes. How many different colors and shapes of tomatoes or apples have students seen?

You may have similar discussions about other fruits or vegetables as well. If you do a root or leaf tasting, discuss the function of these plant parts and have students list an assortment of roots or leaves that we eat.

If you do a food family tasting such as cucurbits or brassicas, discuss the similarities and differences between the different fruits and vegetables. Ask students to share any experience they have growing or eating these foods.

For seasonal tastings you can discuss what is happening in nature and in the garden during the season on which you are focusing. Tell students that different plants grow well in different conditions. Ask: *What kind of conditions would spring plants like? How about summer and fall plants?* If you can, go outside and have students make observations about what is happening in nature. *What is growing? What is the temperature? Is the ground wet or dry?* Have them draw pictures or record what they see and feel.

Have students wash hands in preparation for tasting and comparing a variety of related foods. Some may be familiar and some will probably be new. Show students the foods one at a time and tell you what it is. Write the name of the food on the board. Give each student a slice of vegetable or fruit. Encourage them to taste it. Tell students that you don't expect everyone to like it, but it is important to try new healthy foods. Have them observe how the fruit or vegetable looks, smells, tastes, and feels. As students taste it, ask them to offer descriptive words for what they are experiencing. Have students take their time to taste the fruits and vegetables.

Have students fill out the included chart or write their descriptive words on the board under the name of the food. Ask them to base their descriptions on the following: appearance, taste, smell, texture, and sound (if applicable). It is helpful to list some appropriate descriptive words on the board for students to choose from while encouraging them to be creative and come up with their own. See the word bank for suggestions.

Continue to taste other different vegetables or fruits in the same manner. Briefly review and compare students' responses for the vegetable and fruit descriptions, noting similarities and differences. Have students vote for their favorite variety. Discuss voting results and reasons why students chose one fruit or vegetable over others.

Closure

Discuss how fruits and vegetables provide many vitamins. Eating a variety of fruits and vegetables daily is part of a healthy diet and there are many choices to enjoy.

Extension Activities

- Create a collective poem by stringing students' descriptive words together. Begin it with, "Today I tried some foods that were..."
- Have students use the descriptive words to write alliterations for the foods tasted: Example: Aromatic Apple
- Have students write acrostics for food tasted, for example:
 - Alluring taste
 - Pleasantly juicy
 - Pink Lady
 - Lustrous shine
 - Eye-catching red
- Include some of the descriptive words in the weekly spelling words. Have students write sentences using these words.
- Have students write short descriptive paragraphs or poems about the food they tried. Cut out paper in the shape of the foods you've tasted (leaves, tomatoes, apples, etc.) and paste or write the poems on the cut-outs. Then paste them all together on a piece of poster board or paper.
- Have students vote on their favorite variety tasted today. Tally the results and graph them using a bar graph or pie chart.
- Hold a classroom fruit and vegetable challenge. Information from Team Nutrition (<http://teammnutrition.usda.gov/Resources/fvchallengepacket.html>) is available to help keep track of how many fruits and vegetables students eat. Highlight Wisconsin products and encourage eating a rainbow of colors with the challenge.
- Coordinate the tastings with a growing plants unit as part of science class. Plant brassica seeds, observe growth, and then taste a variety of brassica vegetables.
- Discuss colors and nutritional contributions related to color content. Color is a good clue to the nutrient content of vegetables. Most yellow and orange vegetables such as carrots, sweet potatoes, and winter squash get their color from their high content of beta carotene and other carotenoids. Carotenoids are precursors of vitamin A. Dark-green leafy vegetables also contain carotenoids, but they're masked by the vegetables' high content of chlorophyll. Visit MyPlate.gov for lists of different fruits and vegetables by color.
- Discuss how the fruit or vegetable the students tasted can be available in multiple forms. For example, for the tomato tasting, fresh tomatoes, spaghetti sauce, ketchup, salsa, sun-dried tomatoes, and tomato soup. To expand the apple tasting lesson, compare raw apples with unsweetened applesauce and dried apple slices. Ask students how they think apples are turned into applesauce or dried apple slices. Ask if they think the taste, texture, and nutritional value changes with cooking or other processing?

Connection to Other Core Subjects and Curricula

This activity can be aligned with Standards in

English Language Arts: vocabulary of words, phrases, and idioms as a means of improving communication;

Math: data in the context of real-world situations, problem-solving situations, read, extract, and use information presented in graphs, tables, or charts;

Agricultural Education: understand that some plants are sources of food; and

Science: plant growth lessons.

Classroom-to-Cafeteria Connection

- Highlight items on the menu that were tasted in class.
- Hang up the Sensational Food poster that is included in the Fruits and Vegetables Galore resource kit.
- Have students use descriptive words to describe menu items, and then select a different student to read their descriptive menu for each day as part of the morning announcements.
- Plan an all-school color week. Assign a different color to each day of the week. Encourage students to wear the specific color each day. Feature a rainbow of colors menu in the cafeteria. Plan to highlight each specific day's color on the menu. Share nutritional tips about the color group through posters, either purchased or made by students in the classroom.



Descriptive Word Bank

acidic	dry	icy	purple	sugary
alluring	dull	interesting	raw	sweet
aromatic	earthy	irresistible	red	syrupey
awesome	enticing	juicy	refreshing	tan
beautiful	exciting	leafy	rich	tangy
bitter	exquisite	lean	ripe	tantalizing
black	eye-catching	lumpy	rough	tart
bland	fibrous	luscious	round	tasty
blue	fiery	lustrous	salty	tempting
bright	fine	mashed	satisfying	tender
brilliant	firm	mealy	savory	thick
brittle	flaky	mellow	scrumptious	toasted
brown	flavorful	mild	sharp	tough
bumpy	fluffy	milky	shiny	unripe
chewy	fragrant	moist	simple	velvety
chilly	freezing	mouth-watering	slick	vibrant
chunky	fresh	mushy	smooth	vivid
clean	frosty	nice	soft	warm
coarse	fruity	nutritious	soggy	watery
cold	fuzzy	nutty	sour	wet
colorful	goosey	orange	sparkling	white
cool	gorgeous	peppery	speckled	wilted
creamy	grainy	pink	spicy	wrinkly
crispy	green	pleasant	springy	yellow
crumbly	hard	pleasing	sprinkled	yummy
crunchy	harsh	pleasurable	squishy	zesty
curly	healthy	plump	steaming	zippy
delectable	heartly	popping	sticky	
delicate	heavy	prickly	stringy	
delicious	hot	pungent	strong	

Food Tasting Chart

Name: _____

Describe each food in terms of the five senses: appearance, taste, smell, texture, and sound (if applicable).

Food Item	Appearance	Smell	Taste	Texture	Sound
<i>Example: Jonathan Apple</i>	<i>Bright red Small in size Shiny</i>	<i>Like fall</i>	<i>Sweet-tart Sour</i>	<i>Crisp Hard</i>	<i>Crunch Snap!</i>
1.					
2.					
3.					
4.					

Some ideas to help with the chart

Appearance: color, shiny, wet, dry, dull

Smell: strong, slight, fruity

Tastes: sweet, tart, mild, bitter

Textures: crisp, soft, hard, mushy, stringy, grainy

Sound: snap, crunch

Wisconsin's Cultural Cuisine and Nutrition

Differentiated nutrition lesson for students ages 14 to 21, special education, cognitive disability, and autism.

Topic	Diversity and Appreciation of Different Foods
Wisconsin Nutrition Performance Standards	To accommodate students with moderate to profound cognitive disabilities, the Wisconsin Extended Grade Band Standards and Instructional Achievement Descriptors should be followed for the student's grade level to help address IEP goals. E.4.1 Discuss that people eat many different foods.
Summary and Key Concepts	Students understand more about Wisconsin and become comfortable with cultural differences they will experience as adults.

Goals and Objectives

The students will have an opportunity to experience examples of foods that different immigrants and Native American tribes ate and learn about some of the nutrients found in these foods.

Per student IEP goals, some students will only achieve one or two of the following objectives:

1. The student will recognize that people from different cultures eat different foods.
2. The student will identify fats, carbohydrates, and proteins used in cultural recipes.
3. The student will demonstrate the ability to perform—independently or with support—an assigned measurement of a recipe.
4. The student will determine if this is a recipe that they should eat on a regular basis or only occasionally.

Supplies Needed

- Basic information about cultures from which the recipe is being taken. For example, information about how Native Americans used maple syrup recipes and maple syrup's importance in Native American culture can be found on the Wisconsin Department of Natural Resources' Environmental Education for Kids website (<http://dnr.wi.gov/org/caer/ce/eek/cool/maplerecipe.htm>).
- Printed or teacher-modified copies of recipes found on the Wisconsin State Historical Society website (<http://www.wisconsinhistory.org/teachers/lessons/elementary/flavor.asp>).

- Enlarged or teacher-prepared nutrition labels from the main ingredient of each recipe used.
- Outline map of Wisconsin, one copy for each student, and a copy on a transparency for overhead projector use (<http://www.enchantedlearning.com/usa/states/wisconsin/outline/>).
- Pictures of Wisconsin foods and Wisconsin immigrants; see <http://www.wisconsinstories.org/> for pictures of Wisconsin life.
- Overhead viewer or document viewer.
- Cloth organizer "board" with pockets or slats for recipe ingredients. A flannel board or a CD holder with clear pockets will work well.
- Information on Wisconsin immigrants (<http://comminfo.rutgers.edu/~dalbello/FLVA/background/demographics.html> and <http://www3.cesa10.k12.wi.us/explore-wi/people/index.htm>).
- Recipe steps and ingredients written on strips of paper to put into cloth organizer or with Velcro to attach to the flannel board.
- Cooking and measuring utensils for recipe preparation.
- Happy and sad faces for non-verbal students to use in evaluation activities.
- Aprons, wash clothes, dish towels.
- Pictures of different foods and cultural dishes.
- Teacher-prepared "cooking rubric."

Anticipatory Set

Teacher will put up the map of Wisconsin, either by transparency or document viewer.

Time Line

This lesson will be taught throughout a month-long lesson or unit on Wisconsin. The cooking activities will take approximately two to three hours from beginning to completion. Daily work on the lesson, such as reading recipes or learning about the different immigrants and tribes, will be done each day during functional academics (reading, math) classes.

Set Up

- Teacher will modify each recipe and label the main ingredients with the words fat, carbohydrate, protein.
- Prior to the cooking activity, the teacher and students shop for ingredients necessary to prepare the recipe.

Activity

Wisconsin has a rich tradition of eating foods that have been shared from the many cultures that are represented in our state. In conjunction with our class study of Wisconsin, the students will have an opportunity to prepare and eat foods of the different cultures that settled in Wisconsin by using sample recipes from *The Flavor of Wisconsin: An Informal History of Food and Eating in the Badger State* (Hachten, Harva; 1981) found on

the Wisconsin Historical Society website <http://www.wisconsinhistory.org/teachers/lessons/elementary/flavor.asp> and the EEK website <http://www.dnr.state.wi.us/org/caer/ce/EEK/cool/maplerecipe.htm>.

The recipes found in *The Flavor of Wisconsin* were “dishes that can be prepared in one or two class periods and do not involve extensive clean-up. We also looked for recipes that included relatively inexpensive and easy-to-obtain ingredients.” (See <http://www.wisconsinhistory.org/teachers/lessons/elementary/flavor.asp>.)

The maple syrup recipes were chosen to show a resource that Native American tribes of Wisconsin used in their cooking. During the lesson, the students will work with the teacher to evaluate the basic nutrition of our Wisconsin ancestors found in the recipes.

Step-By-Step Procedures

Day One: Preparation

1. Show pictures of early Wisconsin residents.
2. The teacher asks the students if they can name or choose a picture of some foods this person might eat. Give the students time to answer. If all students were reluctant to answer, hold up one of the food pictures and ask if this might be a type of food this person would eat. Give the students time to respond or ask the students to hold a thumb up for yes or a thumb down for no.
3. After the students have answered, explain that today they will be reading about a recipe that they will prepare during cooking class.
4. Distribute the teacher prepared and labeled recipes.
5. Have able students read the recipes, or teacher reads the recipe. As the recipe is read, have the students point to or read the nutrition words we are studying: fat, carbohydrates, and protein.
6. Remind the students that foods are made up of nutrients like fat, carbohydrates and protein and that our bodies need these nutrients to have energy and live. Each nutrient is important for healthy living.
7. The teacher will explain why some foods should not be eaten daily because of their nutrient content. (Such as foods that have a lot of fat or simple carbohydrates.) Ask the students if they think this is a recipe or food that they could eat everyday (thumbs up) or only occasionally (thumbs down). Give all students a chance to respond.
8. When students are finished reading the recipe, the teacher and students will prepare a shopping list of ingredients needed to prepare the recipe.
9. If time is up for the lesson, have the students use their map to point to the culture from which the recipe is derived and remind them that on cooking day they will prepare this recipe for their peers.

Day Two: Cooking Day

1. Remind each student to wash their hands and put on their apron at the beginning of the lesson. Assist those students who need help tying the apron, drying their hands, and so on.
2. Review the cooking rubric at the start of the lesson. Remind the students they will be graded according to the rubric.
3. Assign one student to fill the dishpan and wash the table.
4. Assign one student to get the bowls, baking pans, and other equipment needed for the recipe.
5. Assign one student to get the measuring utensils.
6. Assign one student, with adult support, to turn the oven to the required temperature, if this is a baking activity.
7. Give each student a step of the recipe to perform. If the ingredient the student is working with is a fat, carbohydrates, or protein, have the student say the nutrient.
8. When the student has completed their assigned recipe step, the student will put the strip into the cloth organizer "board." Ask the student to say what nutrient was used in this step.
9. Not every ingredient will fall into the category of fat, carbohydrate, or protein. Explain to the students that all food has some nutritional value, but we are studying these nutrients.
10. When the recipe is cooking, the students will point to or state their part of the preparation.
11. While some students are working with one adult to prepare the recipe, the others will work with another adult to set the table and work with the adult to write a few sentences about the recipe(s) that are being prepared.
12. When the recipe is completed, students will be assigned to clean up the work area and put away the unused materials.
13. Three students will be assigned to wash and dry the dishes while the food is cooking.
14. Assign one student to get the other students to join us for lunch.
15. When all are assembled for lunch, ask the cooks to explain what they did to prepare the meal.
16. Ask the students to state what fats, carbohydrates, or proteins were used in the recipe.
17. Ask one student to read the sentence(s) about the recipe(s) prepared for the meal.
18. The teacher should remind the students that different cultures prepared different meals because of the types of foods available to them and where they lived.

19. The teacher should remind the students that as adults, we often have the opportunity to try new foods. It is polite to say “no thank you” to trying a new food, but consider at least taking a small portion to sample the food.

Closure

Ask the students how many of them enjoyed this recipe. Remind the students that food is made up of different nutrients. Ask the students if they can remember the names of the three nutrients we have been looking for in the recipes. Ask for volunteers to raise their hands to answer or point to the nutrient words we are studying. Allow some of the slower students to answer or point to at least one of the nutrient words. Hold up the labeled Wisconsin map. Ask for a volunteer to point to the culture from which the recipe is derived.

Assessment and Evaluation

Students will be assessed during cooking activities by using the cooking rubric and according to their IEP goals. Students will be given **v**, **v-** or **v+** during the classroom activities for their participation and understanding during the activity. This will be done according to the following scale:

- v-** Student does not demonstrate any understanding of the concept or lesson being studied.
- v** Student demonstrates ability to follow lesson by pointing to answers with verbal or teacher modeling or prompting.
- v+** Student demonstrates the ability to answer questions/ideas about the lesson on an independent level and without any teacher prompting.

Connection to Other Core Subjects and Curricula

This lesson will be a valuable tool when studying the state of Wisconsin and the many cultures found in our state. The lesson would be expanded through a visit from persons with different cultural backgrounds or to different sites in the state. One valuable field trip would be to visit Old World Wisconsin. These activities would help the students integrate classroom activities into realistic life experiences.

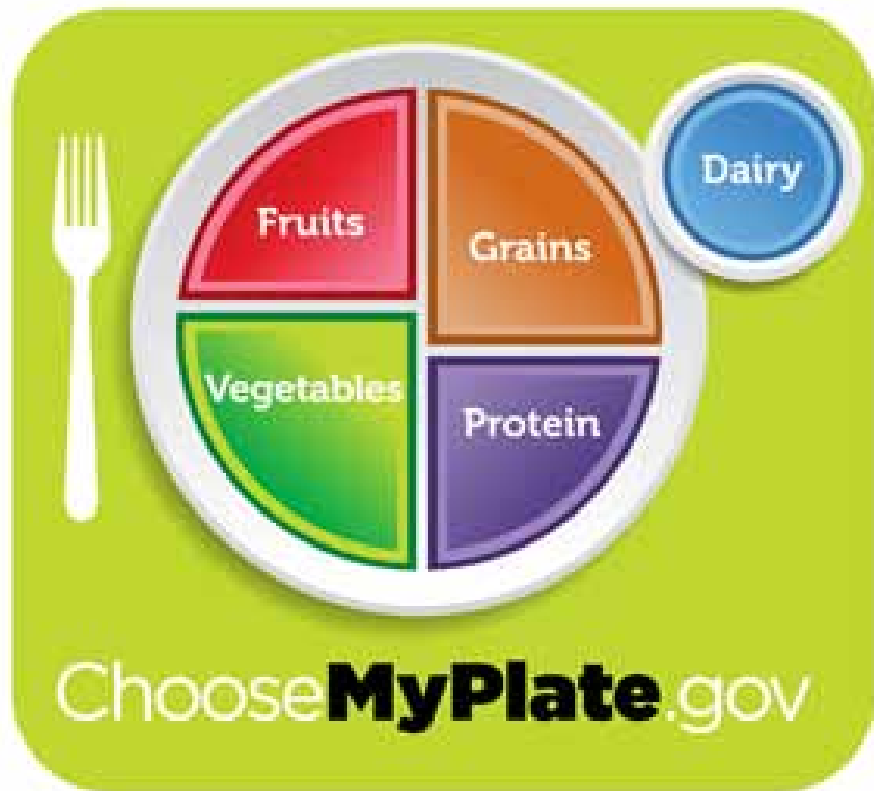
Language Arts: reading to acquire information.

Mathematics: measurements, using measurement tools.

Social Studies: identify and describe important events and famous people in Wisconsin and United States history.

(Adapted from a lesson by Roxanne Ciatti, Special Education Teacher, Milwaukee Public Schools.)

Nutritious, Delicious, WISCONSIN
Resources



Wisconsin Foods

Grains

Hay and Oats

Hay and oats are grown for livestock feed.

Popcorn

Popcorn is a special kind of corn that was originally grown by Native American Indians. Popcorn is grown as a specialty crop in Wisconsin and can be found at many farmers markets in both unpopped and popped varieties. Popcorn is a nutritious snack food, low in calories, fat free (without butter), and high in fiber.

Wheat

Wheat was the earliest and most important cash crop for white settlers in early Wisconsin history. Today, Wisconsin farmers plant soft red winter wheat typically in the fall for harvest in the spring. Soft red winter wheat flour is used to make pastries, cakes, pie crusts, biscuits, and muffins. Whole wheat contributes B vitamins, fiber, and vitamin E to a healthy diet.

Wild Rice

Wild rice was an important food staple enjoyed by the Ojibwa and Menominee Indians. Wild rice was boiled rice and eaten with corn, beans, or squash and seasoned with meat, a small amount of animal fat or grease, or maple sugar. Wild rice is a cereal grass that grows in shallow lakes and streams, particularly in the Upper Great Lake regions of Wisconsin and Minnesota. Wisconsin has 70 major rice fields in 13 counties. The grain usually begins to ripen in sections of the Wolf and Wisconsin rivers first, before lake shore areas are ready to be harvested in early fall. Wild rice harvests are managed by the federal government. Wild rice is a good source of B vitamins, zinc, magnesium, iron, and other minerals.

Vegetables

Visit http://www.wisconsinfreshproduce.org/veg_facts.htm **for more information on Wisconsin grown vegetables.**

Asparagus

Asparagus is an early spring vegetable that can grow wild in the garden or farmer's field. Asparagus is a hardy perennial that will yield for up to 40 years once the crop is established. The fern-like foliage grows to about four to five feet tall if the young stems are not cut. Asparagus is excellent for vitamin A and vitamin C, and also potassium, zinc, vitamins B1 and B2, and fiber. Asparagus is available from early May through June.

Beans

Wisconsin ranks first in the nation for production of snap beans for processing. Beans provide vitamin A, vitamin C, folate, small amounts of iron, and protein, and are a good source of fiber and potassium, too. Varieties of beans include snap beans (green and wax), French green beans, Italian or Romano green beans, purple wax beans, Scarlet Runner beans and yard-long beans that originate from Asia. Beans originated in Central America and were grown in the western hemisphere before the arrival of Christopher Columbus. When the Americas were discovered, climbing beans were found planted with corn. Snap beans are typically available from July through September.

Beets

Most Wisconsin-grown beets are red beets, but you can find pink, purple, white, and yellow or golden beets as well. Both the beet tops and the roots are eaten, and beets are eaten fresh and canned. Wisconsin is a leader in the production of beets. Beet tops are an excellent source of vitamin A, while beet roots are a good source of fiber, potassium, and vitamin C. Golden beets don't bleed when cooked but don't taste as sweet as red beets. White beets look like turnips and are even less sweet. Fresh Wisconsin beets are generally available from June through October.



Bell Peppers

Green, red, orange, and yellow bell peppers are harvested from mid-July through the end of September. Peppers are excellent for vitamin C and have some fiber.

Broccoli

Broccoli is an excellent source of fiber, vitamin C, vitamin A, calcium, iron, potassium, folate, and vitamin K. Broccoli is available from July through the beginning of October.

Brussels Sprouts

Nutritional powerhouses, Brussels sprouts contribute fiber, vitamin C, some vitamin A, potassium, vitamin K, folate, zinc, and B vitamins to the diet. They are available July through September.

Cabbage

Cabbage is high in beta-carotene, vitamin C, and fiber, and may help to reduce the effects of some kinds of cancer.

Cabbage varieties include green, red, and Savo, and are used mainly for sauerkraut, cole slaw, stir fry, and assorted salads. Wisconsin ranks first in the nation for the production of cabbage for sauerkraut, a great addition to a summer indicator of Wisconsin's German heritage. Cabbage is high in beta-carotene, vitamin C, and fiber. Fresh cabbage is available in Wisconsin from mid-June through late October.

Carrots

Carrots are crisp and crunchy root vegetables enjoyed raw and cooked. The bright orange, yellow, and purple colors mean they're high in beta carotene, an antioxidant and precursor to vitamin A, which helps eyesight. They're also full of calcium pectate, a fiber that can lower "bad" cholesterol levels, and some vitamin C. Wisconsin ranks third in the nation for carrot production. Carrots are generally available from late June through August.

Cauliflower

A cruciferous vegetable, cauliflower can be found July through the beginning of October. Cauliflower provides vitamin C and fiber.

Corn

Corn is a leading Wisconsin field crop. Most of the corn grown in the United States is “dent corn,” which also is known as feed or field corn. Dent corn is low in sugar content and high in starch with kernels that are very firm. It is primarily used for animal feed and commercially prepared products for human consumption, such as syrups, sugars, cereals, corn chips, starch, oil, liquor, and sweeteners for soft drinks.

Wisconsin grows both field corn and sweet corn. The corn we eat is sweet corn, and Wisconsin ranks third in the nation for sweet corn processing and canning. Sweet corn provides fiber and vitamin C, some potassium, and zinc. Fresh sweet corn is available as a local crop in many Wisconsin communities from July through September.

Cucumber

Cucumbers contain mostly water but do have small amounts of vitamin C and lutein that is essential in eye health. Cucumbers are typically eaten raw on salads or with dip, but they are also made into many varieties of pickles. Fresh cucumbers are available in Wisconsin between mid-July through September. (Native to India, cucumbers may be one of the oldest cultivated vegetables.)

Eggplant

Eggplant is available in several varieties in August and September, and adds fiber to the diet.

Kale

Kale is a leafy green that provides potassium, vitamin A, calcium, and folate.

Kohlrabi

Kohlrabi is a member of the cabbage family. It is an excellent source of vitamin C and a good source of potassium. Kohlrabi can be prepared by boiling, baking, steaming, frying, stir-frying, or with a sauce. Tender, young kohlrabi can be sliced or chopped and eaten raw with dip or in salads. Kohlrabi has a turnip-like appearance, with leaves shooting out of the rounded, edible stem part of the vegetable. There are two types of kohlrabi: green and purple. Kohlrabi is available June through September in Wisconsin.

Peas

Green (garden) peas, snow peas, and sugar snap peas are all grown in Wisconsin. Peas are low in fat while also being a good source of fiber and protein, some zinc, and vitamin A. Wisconsin ranks third in the nation for growing and processing peas. Fresh peas are available in Wisconsin in June and July.

Potatoes

Wisconsin is the third largest potato producer in the nation. A potato has twice as much potassium as a banana and as much vitamin C as a glass of orange juice. When you eat the potato and the skin, you get additional fiber, too. A medium-sized potato has only 100 calories, zero fat grams, no sodium, and small amounts of iron. Additionally, there is a wide variety of Wisconsin-grown potatoes to choose from. From the traditional brown Russet, to white, yellow, red, and even blue and purple, you can create a meal with a rainbow array of potatoes! Another, less obvious distinction is nutritional content and best uses of different varieties. For example, according to the Wisconsin Potato and Vegetable Growers Association, Russet potatoes are ideal for baking and mashing, while round white potatoes are ideal for scalloped potatoes, roasting, and potato salads. Potatoes are harvested from June through October.

Rhubarb

Rhubarb is actually a vegetable (not a fruit!), and it looks a bit like celery. The rhubarb plant has large, elephant ear-like leaves and red, pink, or green stalks. It is the stalk that is eaten, not the leaves. Red is the most popular and is full of anthocyanins (good for you phytochemicals). It is really tart, so it is typically cooked with sugar into desserts, pies, and sauces. Fresh Wisconsin rhubarb is available in May through June.

Spinach

Fresh spinach is high in vitamins A and C and is a good source of dietary fiber, iron, calcium, and folate. Cooked spinach is an excellent source of carotene, lutein, and zeaxanthin. Fresh spinach is available in Wisconsin from mid-June through July.

Summer and Winter Squash

Winter squash is a good source of carbohydrates, fiber, and carotene. Fresh winter squash is available from September through November in Wisconsin. Acorn squash and butternut, two common winter squashes, are excellent sources of vitamin A, vitamin C, and fiber, and small amounts of iron, potassium, calcium, and vitamin E. Summer squash, including zucchini and yellow crookneck squash, is low in calories and a good source of fiber, vitamin A, and vitamin C. Summer squashes are available from July until frost.

Swiss Chard

A leafy green, Swiss chard is a great source of fiber, potassium, calcium, iron, vitamin A, vitamin K, vitamin E, and folate.

Tomatoes

Botanically classified as a fruit, but nutritionally more like a vegetable, tomatoes are excellent low calorie sources of vitamin A, potassium, vitamin C, and vitamin K. Tomatoes are ripe July through September.

Fruit

Apples

Wisconsin is home to over 300 apple orchards. There are more than 100 varieties of apples grown in Wisconsin. Wisconsin apples can be enjoyed fresh, and prepared as apple sauce, apple desserts, and apple baked goods, and as juice, cider, and even dipped in caramel at a festival or party. Apples are a good source of fiber. (See <http://www.waga.org/images/stories/pdf/facts.pdf>.) Apple picking is June through October, and Wisconsin apples are typically available into January.

Blackberries

These luscious berries are low in calories and high in fiber and vitamin A, potassium, and vitamin C. They provide a little calcium and zinc as well. Berry picking is typically July through September.

Cantaloupe or muskmelon

These orange melons are excellent for potassium and vitamin A. Fresh melons are available from August and September until frost.

Cherries

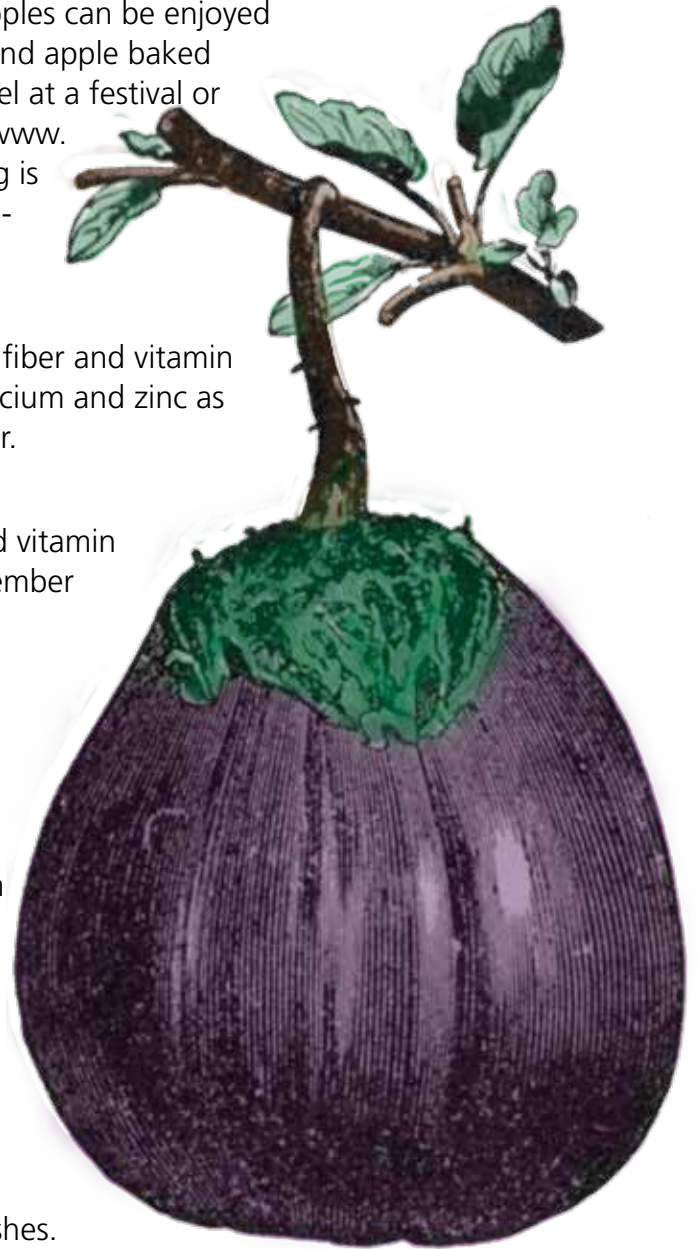
Cherries are a good source of antioxidants, which help fight cancer and heart disease. Cherries provide potassium, fiber, and a little iron. Tart cherries also relieve the pain of arthritis and gout. Most cherries grown in Wisconsin are tart cherries, and seldom eaten fresh. Instead, they are used in pies and jams. Fresh cherries usually ripen in Wisconsin in mid-July to August.

Cranberries

Wisconsin ranks first in the nation for production of cranberries, producing about 300 million pounds of cranberries every year. Wisconsin farmers first began growing cranberries in 1853 in peat swamps or marshes.

Cranberries grow best in sandy, acidic soil, and are now grown in 18 Wisconsin counties. Cranberries grow on low vines. The fields are flooded, and the cranberries float to the surface for easier harvesting. Cranberry bogs and wetlands also provide a welcome habitat to Wisconsin wildlife.

The tart flavor and bright red color of cranberries is an expected part of Thanksgiving and holiday meals. But this tangy fruit is enjoyed year round in relishes, juices, desserts, trail mixes, sauces, mustards, and more. The cranberry is low in calories and contains fiber, antioxidants, and bacteria-blocking agents. Research shows eating cranberries helps prevent urinary



tract infections, ulcers, gum disease, certain cancers, and more. Fresh cranberries are typically available from September to early November every year.

Pumpkin

Not just for jack-o-lanterns and pie, pumpkin is a low-calorie and nutrition-packed addition to eat year-round. Pumpkin is an excellent source of potassium, vitamin C, vitamin A, and fiber. Pumpkin seeds also contribute iron, magnesium, potassium, zinc, and vitamin E. Late September and October is the best time to pick a pumpkin in Wisconsin.

Raspberries

Raspberries are a source of vitamin C, soluble fibers, and zinc. In addition, they contain ellagic acid, a potential cancer-fighting agent. Since raspberries soften quickly and are delicate, they should be used right away after picking or purchase. They can be stored overnight on a paper towel lined tray. Do not soak the berries, as their hollow core fills with water and makes the berry less flavorful. Fresh raspberries are available in mid-summer through early fall.

Strawberries

Strawberries are delicious sources of vitamin A, vitamin C, potassium, and fiber. Strawberries are enjoyed fresh, frozen, and made into jam and jellies. Fresh strawberries are available in Wisconsin from mid-June through July.

Watermelon

Smaller watermelons are grown in Wisconsin and are ready to pick in August and September. Nutritionally, watermelon adds fiber, potassium, vitamin A, vitamin C, and lutein to the diet.

Dairy

Wisconsin is a leading milk and dairy producer, and produces about one-third of all the cheese made in the United States. Other dairy products made in Wisconsin include yogurt, cottage cheese, and ice cream. Dairy products are excellent sources of calcium, magnesium, protein, and milk fortified with vitamin D.

Protein

Beef cattle

While Wisconsin is known as America's Dairyland, the state's beef industry is thriving. Beef cows, beef heifers over 500 pounds, steers, and other heifers (excluding dairy heifers) account for nearly 23 percent of the total cattle population in the state. Beef cattle and hogs are second and third most valuable livestock products. Lean beef is a valuable source of iron, B vitamins, and protein.

Brats

Germans brought their sausage recipes to Wisconsin when they settled throughout the state in the 1800s. Bratwurst differs slightly in taste because of the spices and other meat fillers and how fine the pork is ground by the sausage makers. The main ingredient in authentic bratwurst is pork; although there are other sausages called bratwurst that are all beef or a mix of various meats other than pork. In Wisconsin, bratwurst is a favorite food for tailgating, picnics, fairs, holidays, baseball, football, and summer celebrations. Bratwurst is typically a higher fat meat, but lower fat versions are becoming more prevalent in the local market.

Bison

Bison has a sweeter, richer flavor than beef and can be prepared much the same as beef. Prior to cooking, bison meat is darker. This coloring is due to the fact that bison meat does not marble (produce internal streaks of fat) like beef. The lack of fat insures that bison meat will cook faster. Fat acts as an insulator—heat must first penetrate this insulation before the cooking process begins. Marbling aids in slowing down the cooking process. Since bison meat lacks marbling, the meat has a tendency to cook more rapidly. Caution must be taken to guarantee that you do not overcook bison.

Chicken

Wisconsin chicken farms produce 1.3 billion eggs and 47 million broilers each year.

Lean chicken is an excellent source of protein and B vitamins. Eggs provide a quick source of protein and omega-3 and omega-6 fatty acids.

Deer

The white-tailed deer is a large, brown animal found throughout Wisconsin. Nine states, including Wisconsin, have claimed the white-tailed deer as their state animal. Deer meat is typically made into sausage or ground meat, so the fat and nutrient content can vary.

Emu

Emu meat is 97 percent fat free, high in iron and vitamin B12, and low in calories and cholesterol. The American Heart Association recently included emu meat in its listing of heart-healthy meats. The tenderness and texture of emu meat enable it to be prepared in a variety of ways. It is best prepared lightly grilled, pan fried, or sautéed.

Ostrich

Ostrich meat is naturally rich in protein and iron and contains no marbled fat. Naturally low in calories, this healthful red meat is nearly identical to beef in taste, texture, and variety of uses.

Pork

Wisconsin ranks 16th in the nation in hog receipts. The counties with the most hogs include Grant, Sauk, Dodge, Dane, and Lafayette, with most Wisconsin farms raising less than 100 head of swine. Hogs rank as the number eight commodity in Wisconsin. Lean cuts of pork are excellent protein choices for Wisconsin meals. Pork contributes iron and B vitamins to a healthy diet.

Soybeans

Soybeans are the second most popular crop grown in Wisconsin. Wisconsin ranks 16th in the nation for soybean production. Most soybeans grown in Wisconsin are used for animal feed; however, a small amount are grown for human consumption. This legume is an excellent source of protein, iron, B vitamins, fiber, and many other minerals. Soybeans are a great meat extender and meat alternative, and are used in soups, stews, casseroles, and vegetarian proteins.

Turkey

Ben Franklin, in a letter to his daughter, proposed the turkey as the official United States bird. Turkey white meat is a very lean protein, while dark meat is a better source of iron.

Walnuts

Rich, crunchy walnuts are always delicious, whether sprinkled on top of a waffle at breakfast, added to brownies whipped up for an after-lunch treat, or tossed with a crisp green salad for dinner. Walnuts are a good source of omega-3 fatty acids, thought to reduce risk of cancer. They also provide protein, several essential vitamins and minerals, and antioxidants, yet are free of trans-fats and cholesterol. Today, they're ranked as America's third most popular tree nut.

Whitefish

At the fish boil Friday night food tradition on Door County Peninsula, whitefish is commonly served. The fish is cooked in boiling water with potatoes and salt, and served with cole slaw, rye bread, and cherry pie for a traditional Wisconsin meal. Whitefish is an excellent low fat protein source, and provides B vitamins.

Not Food Groups, but to be Considered: Oil, Others

Butter

Wisconsin is a leading butter producing state. Lightly salted butter is the perfect ingredient for general cooking. Unsalted butter is great for baking, creating flaky crusts and sweet treats with great taste and texture. Both lightly salted and unsalted butter are available in sticks for easy measuring when cooking or baking. Whipped butter is whipped with air to make it light and fluffy and comes in tubs, making it an ideal table spread.

Honey

Using honey instead of sugar adds antioxidant protection to your diet. The sweet treat of honey is also perfect for the fall season farmers markets, as extraction starts in September.

Maple Syrup

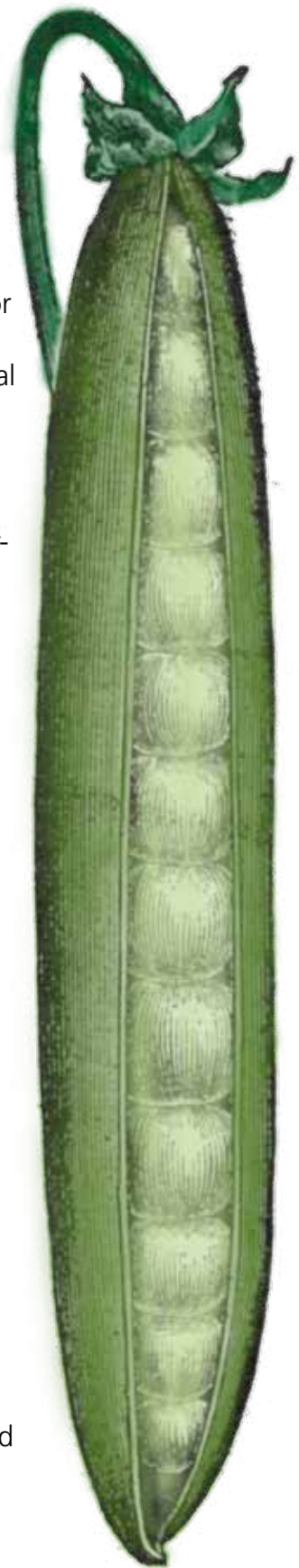
Wisconsin ranks third among the states in the production of maple syrup, and maple products were one of the state's earliest agricultural products. Pure maple syrup has no artificial coloring, flavoring, preservatives, or additives, and contains 50 calories per tablespoon.

Garden Fresh: When Will Vegetables Be Ready to Harvest?

The Growing Season Guide on Savorwisconsin.com indicates when Wisconsin's fruits and vegetables come into season. For example, several vegetables, such as broccoli and spinach, come into season during July, but these dates are approximate due to variations during the growing season.

Nothing beats the flavor of foods prepared fresh from the garden and farmers market. Recipes can be fun to try for family meals and as part of the classroom to cafeteria connection. Recipes and meal ideas using local foods can also be sent home in newsletters and included with family communications.

For recipes and cookbooks on Wisconsin foods, visit: <http://www.globaldialog.com/~tallen/books.html#aboutfave>. Note, not all are healthy recipes. This is an opportunity to discuss the historical value and the personal connections we can make with certain foods.



Wisconsin Vegetable and Fruits Quiz

Test your knowledge of these wonderful Wisconsin vegetables and fruits with the 25 questions that follow below. The answers are in the information that follows each question.

1. This is the favored jewel of the summer squashes. It has a light, sweet flavor and is low in calories and high in vitamins A and C. What is it?

- Splendid squash
- Zucchini
- Butternut
- Watermelon

Summer squashes, including **zucchini**, are native to the Americas and belong to the **Cucurbitaceae** family. Archaeologists have traced their origins to Mexico when they were an integral part of the ancient diet of maize, beans, and squashes. The colonists of New England adopted the name squash, a word derived from several Native American words for the vegetable which meant "something eaten raw." There are many varieties of zucchini. Some are round, some are yellow, some are a combination of green and yellow, and some are a cross between zucchini and the fluted patty pan squash. With their high water content (more than 95 percent), zucchini squashes are very low in calories. There are only 13 calories in a half-cup of raw zucchini, with a slight increase to 18 calories in the same quantity cooked. Nutritionally, zucchinis offer valuable antioxidants. Zucchini is a good source of vitamins A and C, potassium, and is low in calories.

2. Spaghetti, banana, butternut, hubbard, pumpkin, acorn, golden acorn, turban, kabocha, delicata, and sweet dumpling are all kinds of:

- Summer squash
- Melons
- Winter squash
- Vine fruits

Winter squashes have a hard outer shell and generally have a firm inner core with many seeds. Although some winter squashes are available year round, they are most flavorful from early fall through winter and at a better price. The most common varieties are spaghetti, banana, butternut, hubbard, pumpkin, acorn, golden acorn, turban, kabocha, delicata, and sweet dumpling. When picking a winter squash look for a heavy, hard-skinned squash with no blemishes or bruises. Skin color varies considerably according to variety, from the creamy tan-orange color of butternut squash to the grayish-blue of some kabocha squash. Flesh color can be a brilliant deep orange or various shades of yellow or green. Winter squash is an excellent source of beta carotene and potassium and a source of vitamin C and folacin.

3. This root vegetable is delicious in soups and stews and can be mashed like potatoes. It is a member of the crucifer family. Both the root and greens are eaten, and can be eaten raw or cooked. What is it?

- Turnip
- Brussels sprouts
- Jicama
- Lettuce

Turnips are a root vegetable that can be eaten in a variety of ways, including mashed like potatoes. They belong to the crucifer family, and are grown for their roots and greens. Turnips are available in amber and white globe, baby bunch, and purple top varieties. They are good sources of vitamin C, calcium, and potassium.

4. This tuber has "eyes" but does not see. It is, however, a good source of vitamin C. What is it?

- Sugar beet
- Pumpkin
- Potato
- Apple

Before **potatoes** were abundant beyond South America, turnips were everyday staples, particularly in Europe during the Middle Ages. The origins of the turnip are vague but it may have come from northeastern Europe or Asia many thousands of years ago. At some undetermined point in history, the less nutritious turnip gave up its role as everyday vegetable to the more nutritious spud. Potatoes are an excellent source of potassium, a good source of vitamin C, and a source of fiber and folacin. Potatoes belong to the nightshade family and are related to tomatoes, peppers, and eggplant. Potatoes come in many varieties and colors, including white, yellow, red, and purple. Whenever possible, eat the potato and the skin for the most nutrition.

5. This vegetable can be made into a pie or a jack-o'-lantern. Its seeds can be roasted for a delicious snack. What is it?

- Turnip
- Jack frost melon
- Pumpkin
- Spaghetti squash

Pumpkins belong to the **Cucurbitaceae** family, which includes cucumbers, melons, squash, and gourds. Pumpkins are available in all shapes, colors, and sizes, but one of the best known is the jack-o'-lantern pumpkin, which can weigh as much as 100 pounds and is popular for carving at Halloween.

6. Cooked and eaten like a vegetable, but botanically really a fruit, this vegetable is high in vitamin A and C and is found in salads, pasta dishes, and even on your sandwich. What is it?

- Tamarind
- Tomato
- Tangerine
- Ketchup

Botanically speaking, the **tomato** you eat is a fruit. A fruit is any fleshy material covering a seed or seeds. Horticulturally speaking, the tomato is a vegetable plant. The plant is an annual and non-woody. In 1893, the United States Supreme Court ruled the tomato was a vegetable. One medium tomato has 25 calories; it's a good source of vitamin C and a source of vitamin A and folacin.

7. These fruits contain more vitamin C than oranges, are high in fiber, low in calories, and a good source of folic acid. What is it?

- Pink berries
- Apples
- Sugar beets
- Strawberries

Strawberries were cultivated by the Romans as early as 200 BC. In the 16th century, strawberries were sold in cone-shaped straw baskets thus becoming one of the earliest packaged foods. About 10 strawberries have 27 calories, and 192 percent of the RDA of vitamin C. In Wisconsin, we produce over 4.3 million pounds of strawberries per year. That's almost three tons per acre—that's a lot of picking!

8. Icelanders enjoy eating this vegetable in soup, while Americans favor it in pie. The stem of this plant is what is eaten, and leaves of this plant are poisonous. What is it?

- Rhubarb
- Rhine grape
- Rhinoceros root
- Potato

Rhubarb is called the "pie plant" because it was used in pies in the 1800's in England and America. This deadly poisonous plant—don't eat the leaves!—started out as a medicinal aid, its root considered excellent by the Chinese for constipation and other unmentionable digestive troubles. Rhubarb is a cool weather plant grown commercially in Poland, Russia, and the United Kingdom, and is common in Wisconsin gardens.

9. According to the movie "Shrek," an ogre is like this vegetable—having layers. The vegetable may also make you cry when you chop it. What is it?

- Spring roll
- Onion
- Rutabaga
- Ogre root

Onions not only provide flavor, they provide health-promoting phytochemicals as well as nutrients. Onions contain quercetin, a flavonoid (one category of antioxidant compounds) that helps to eliminate free radicals in the body, to inhibit low-density lipoprotein oxidation (an important reaction in the atherosclerosis and coronary heart disease), protect and regenerate vitamin E (a powerful antioxidant), and inactivate the harmful effects of chelate metal ions. Eating onions may be beneficial for reduced risk of certain diseases, such as preventing gastric ulcers and beneficial effects against many diseases and disorders including cataracts and cardiovascular disease as well as cancer of the breast, colon, ovaries, stomach, lung, and bladder. Onions are also a source of vitamin C, potassium, dietary fiber, and folic acid. They also contain calcium, iron, and have a high protein quality. Onions are low in sodium and contain no fat.

10. This vegetable adds a spicy crunch to salads and relish trays. It is a member of the crucifer family and is a good source of vitamin C and potassium. What is it?

- Runner bean
- Radish
- Tomato
- Rhubarb

Radishes are members of the crucifer family. They vary in size, shape, and color. Radishes, besides adding zip to salads and sandwiches, are a good source of vitamin C. Radishes can be eaten raw, baked, roasted, or stir fried. Try the greens in a salad, too. Ten small radishes equal eight calories.

11. The vegetable is an edible pod and is found in several shapes, sizes and colors. Green and yellow varieties are common. In addition to this variety, you might find wax, Italian (Romano), and French varieties in your garden. What is it?

- Viney sprouts
- Green beans
- Sugar snap peas
- Zucchini

Green beans are a good source of vitamin A and potassium, and contain 40 calories per cup. Green and yellow (wax) beans are a type of snap bean, and can be eaten cooked or raw.

12. This vegetable is a prominent part of ratatouille and other stew-like dishes, and can be enjoyed roasted and stir-fried. Purple, white, green, and striped varieties are common. What is it?

- Eggplant
- Carrot
- Potato
- Butternut squash

Eggplant is found in purple, white, and striped varieties, and is a member of the nightshade family. It's a source of folacin and potassium. One serving contains 28 calories. Eggplant was probably first cultivated in India over 4,000 years ago.

The eggplant really took hold in countries bordering the Mediterranean. Greeks, Egyptians, and other peoples of the Middle East feature the eggplant as daily fare. Southern Italians enjoy eggplant parmigiana, while the French of the south favor ratatouille, a vegetable stew. Spicy eggplant dishes abound in the plant's home country of India, as well as in China and Thailand.

13. Green and slender, this vegetable grows on a vine. It is enjoyed raw in salads and made into pickles. What is it?

- Cucumber
- Pickle melon
- Watermelon
- Radish

Cucumbers are very low in calories. A cup of sliced cucumber contains 14 calories and is a source of vitamin C. Cucumbers were native to India and may be one of the oldest cultivated crops. These cucurbits were brought by Columbus to the New World on one of his voyages, and the vegetable soon spread to English and Spanish colonies and to the Native Americans. Cucumbers come in a variety of sizes, some up to two feet long. Wisconsin grows cucumbers for pickling and salads. Pickles are smaller cucumbers that have been cured in brine or vinegar solution. According to Pickle Packers International, Inc., the trade and research association founded in 1893, the perfect pickle should exhibit seven warts per square inch for American tastes. Americans eat about 5,200,000 pounds of pickles daily, or about 106 pickles per person, per year.

14. This vegetable is enjoyed near the end of Wisconsin summers. Its crisp, sweet kernels grow on an ear, and can be roasted, steamed, and boiled. What is it?

- Sweet pickles
- Sweet peppers
- Sweet peas
- Sweet corn

Corn is a good source of folate and contains fiber, vitamin C, niacin, and thiamine. An average ear of corn has 83 calories. Also known as maize, grain corn was the chief source of nourishment for thousands of years, sustaining the Mayas, Aztecs, Incas, and the Indian peoples of North and South America. Originally corn was grain corn; now it's used for cattle feed and a variety of industrial applications. Sweet corn, as such, is a relatively recent development, becoming popular chiefly since the American Civil War period. Wisconsin is a leading producer of sweet corn.

15. This fruit is grown in Door County. It is picked from trees. It is enjoyed raw, dried, and cooked in pies and other desserts and made into jams and jellies. What is it?

- Blueberries
- Onions
- Cherries
- Pumpkin

Cherries are a good source of vitamin C and potassium, and one cup contains 81 calories. All varieties of sweet and sour can be made into jams, preserves, or brandied. Studies show that cherries are a good source of antioxidants. Darker cherries have higher levels than red-yellow ones.

16. This vegetable grows in a head. It can be white, yellow, green, or purple in color. It is eaten raw, steamed, stir-fried, and roasted, often with sauce or spices. What is it?

- Cauliflower
- Rutabaga
- Tomato
- Onion

According to Mark Twain, "**Cauliflower** is nothing but a cabbage with a college education." Cauliflower is formed from the natural flowers of the cabbage plant gathered together, unopened, to create a mass that becomes a large head over time. Depending on type, the heads can be pale green, white, or even purple. A native of Asia Minor, the cauliflower was once described as resembling a bridal bouquet. The Romans grew cauliflower, but we know little about how they prepared it. A bland vegetable, it is often eaten slathered with thick cheese sauces, perhaps to add interest. Asian Indians may well prepare the cauliflower best, seasoned with curry spices. Cauliflower is an excellent source of vitamin C, a good source of folacin and a source of potassium.

17. This root vegetable can be found in a casserole, a salad, or even a cake. It is commonly orange, but may also be white, yellow, and purple. What is it?

- Potato
- Beet
- Carrot
- Turnip

The **carrot** originated some 5,000 years ago in Middle Asia around Afghanistan and slowly spread into the Mediterranean area. The first carrots were white, purple, red, yellow, green, and black—not orange. By the 13th century, carrots were being grown in fields, orchards, gardens, and vineyards in Germany, France, and China. Orange roots, containing the pigment carotene, were not noted until the 16th century in Holland and were cultivated in the colors of the House of Orange. Because of this vegetable’s inherent sweetness, it is used for desserts and sweets, as well as a vegetable, soup, and stew mainstay. No other vegetable or fruit contains as much carotene as carrots, which the body converts to vitamin A. Carrots are excellent sources of vitamins B and C, and a fiber that has been found to have cholesterol-lowering properties.

18. This vegetable looks like a tiny cabbage. Several varieties of this vegetable are grown in Wisconsin and may be sold still attached to the stalk. What is it?

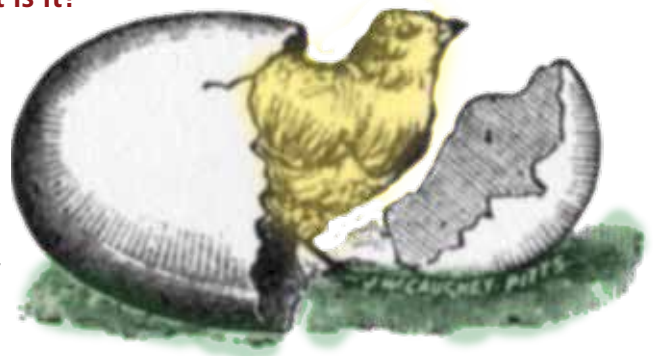
- Brussels sprouts
- Lettuce
- Green onions
- Pears

Brussels sprouts are an excellent source of vitamin C, and a good source of folacin and a source of vitamin A, potassium, and fiber. The vegetable may have been given its name from the fact it was sold in Brussels’ markets in the 1200’s. By the late 18th century, it was being cultivated in England and France. Today it’s grown in Ontario, across Europe, and in the United States and Australia. Several varieties are grown in Wisconsin and are commonly found at farmers markets across the state.

19. This cool season vegetable includes red, green, purple, Savoy, and crumpled leaf varieties. You may enjoy it in cole slaw, salads, stir-fries, and stuffed with rice. What is it?

- Broccoli
- Turban squash
- Cabbage
- Corn

The **Brassica Oleracea** family includes **cabbages**, cauliflower, collards,



broccoli, Brussels sprouts, kale, and kohlrabi. Wisconsin produces more cabbage for processing than any other state in the United States. Most processed cabbage goes into the production of sauerkraut. Cabbage is high in beta-carotene, vitamin C, and fiber. In the early 1920's, citizens of the United States ate a whopping 27 pounds of cabbage per year. Now the average per capita consumption is about nine pounds.

20. A member of the Brassica family, this vegetable is rich in vitamin A. Green and purple varieties are common. You may enjoy this vegetable raw or steamed, and it has a delicious crunch when stir-fried. What is it?

- Broccoli
- Turban squash
- Celery
- Corn

Broccoli is a member of the brassica family. More likely because of poor cooking practices than anything else, some people, including one American president, simply do not like broccoli, and they let you know it. But a recent poll of middle school students revealed that this generation not only likes broccoli (stir-fried, please), but prefers it to other more traditionally kid-friendly vegetables. Clearly an Italian-named plant, broccoli actually may have been developed in Italy from the cabbage plant by the gifted farming people who preceded the Romans. Broccoli is an excellent source of vitamin C and folacin, and a source of fiber, vitamin A, and potassium.

21. This vegetable is found in sweet and hot varieties, both grown in Wisconsin. The sweet varieties are green, yellow, red, or purple in color, and are enjoyed on pizza, salads, and in casseroles and other dishes. What is it?

- Carrot
- Trumpet bean
- Bell peppers
- Acorn squash

Bell peppers are excellent sources of vitamins A and C. The red, yellow, and orange varieties of bell peppers have the highest levels of vitamin C. Bell peppers are actually sweet, and when eaten raw, make a crisp, juicy, and healthy snack.

22. This vegetable grows wild in Wisconsin and is also in many gardens. It is an early spring vegetable with a slender stalk. What is it?

- Asparagus
- Fennel
- Wild turnip
- Blueberry

Asparagus is a member of the lily-of-the-valley family and is unique in having no leaves, but rather phylloclades, which are delicate photosynthetic branches. Before it was used as a food, it was considered a cure for heart trouble, dropsy, and toothaches. It was even supposed to prevent bee stings. Asparagus was brought to the United States by early colonists, who called it "sparrow grass." Asparagus is low in calories (six spears are about 25 calories), high in fiber, and is a source of folacin, vitamin C, and vitamin A.

23. This fruit is a delicious fall treat. It is crisp and juicy, and is a nutritious and easy snack. It is found in many varieties and is picked from trees.

What is it?

- Raspberry
- Cabbage
- Tomato
- Apple

Apples are a member of the rose family and are found in 7,500 varieties around the world. In America, apples were spread by settlers. The first seeds were planted in New England by members of the Massachusetts Bay Company around 1629. And, thus, the American folk hero Johnny Appleseed, who planted apple seeds everywhere he went. One medium apple contains about 80 calories and is a good source of fiber and vitamin C.

24. Wisconsin ranks third in the nation for the production of this vegetable for processing. These vegetables are low in fat and high in plant protein.

What is it?

- Green peas
- Black-eyed peas
- Sugar beets
- Kohlrabi

Green peas, snow peas, and sugar snap peas are fresh legumes. Green or garden peas are shelled before cooking, while snow peas and sugar snap peas are edible pods. They are low in fat and high in plant protein. Central Wisconsin is famous for vegetable production, making us second in sweet corn and carrot processing, and third in production of potatoes and green peas for processing.

25. The leaves and root of this vegetable are eaten. There are red, pink, purple, white, and yellow varieties of this vegetable, but the kind most often grown in Wisconsin is the red. What is it?

- Beet
- Radish
- Carrot
- Potato

Beets are a potherb related to Swiss chard. The beet dates back to prehistoric times; ancient civilizations along the shores of the Mediterranean Sea grew beets for the medicinal quality of their tops. Later, when the root grew plumper and more succulent, they savored its pleasant taste and texture. The bright red pigment in beets is called betacyanin. Sliced, tangy, pickled beets, packed in a special brine of vinegar and natural flavoring, add color and zest to an hors d'oeuvre tray or salad bar. Whole beets can be made into a delicious Eastern European soup, borscht. Cut and diced style beets are perfect for use in many ethnic vegetable dishes to complement a meat or fish entree. Beets are an excellent source of fiber and phosphorous. And, a half-cup serving of canned beets contains just 35 calories.



Wisconsin's Agricultural Rankings

First

Snap beans for processing
Cheese, total production
American cheese
Muenster cheese
Italian Cheese
Cranberries
Ginseng
Mink pelts
Dry whey for human foods
Milk goats
Corn for silage
Oats

Second

Butter
Milk
Milk cows
Mozzarella cheese
Carrots for processing
Vegetable processing, total

Third

Green peas for processing
Potatoes
Sweet corn for processing

Fourth

Maple syrup

Fifth

Cucumbers for pickles
Mint for oil
Cherries, tart

Other items in the top ten

Trout
Strawberries
Cabbage
Corn for grain



Source: Wisconsin 2009 Agricultural Statistics and Wisconsin 2010 Agricultural Statistics, Wisconsin Department of Agriculture, Trade and Consumer Protection.

Helpful URLs

Lessons from Wisconsin Agriculture in the Classroom:

<http://www.wisagclassroom.org/index.php>

Apple lessons:

<http://www.wisagclassroom.org/teachers/docs/faces/Apple%20Lessons.pdf>

Beef:

<http://www.wisagclassroom.org/teachers/docs/faces/Beef%20Lessons.pdf>

Cherry:

<http://www.wisagclassroom.org/teachers/docs/faces/Cherry%20Plans.pdf>

Corn:

<http://www.wisagclassroom.org/teachers/docs/faces/Corn%20Plans.pdf>

Cranberry: <http://www.wisagclassroom.org/teachers/docs/faces/Cranberry%20Plans.pdf>

Dairy:

<http://www.wisagclassroom.org/teachers/docs/faces/Dairy%20Plans.pdf>

Pork:

<http://www.wisagclassroom.org/teachers/docs/faces/Pork%20Plans.pdf>

Potato:

<http://www.wisagclassroom.org/teachers/docs/faces/Potato%20Plans.pdf>

Strawberry:

<http://www.wisagclassroom.org/teachers/docs/faces/Strawberry%20Plans.pdf>

The Dairy Council has developed the **Nutrition Expeditions and Bridges to Wellness™ lessons** to help make the classroom-to-cafeteria connection. For more information, visit

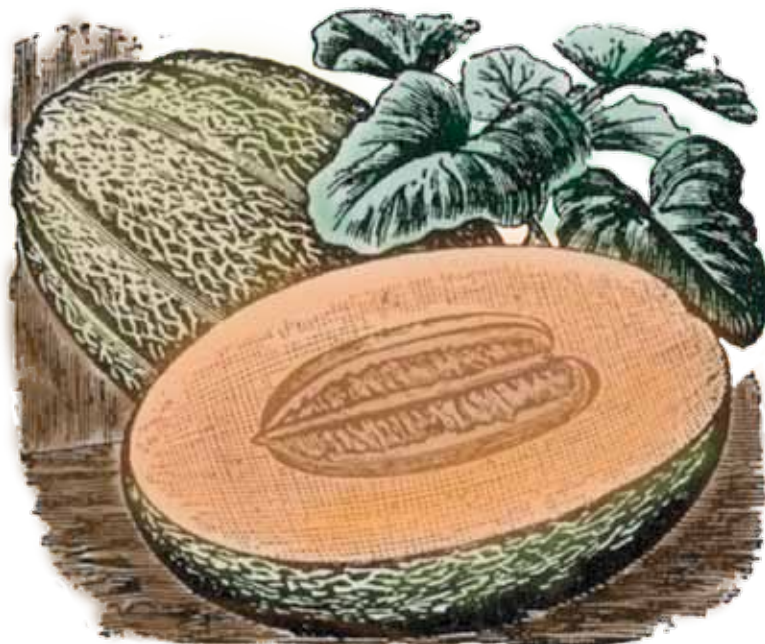
http://www.nutritionexplorations.org/sfs/cafeteria_classroom_ways.asp.

Wisconsin Wednesdays

Connecting the curriculum between the classroom and cafeteria will reinforce the lessons and help children make a nutritious connection to learning. The cafeteria is a natural learning lab for your school, and the menu a natural reinforcement of lessons learned. Common planning time for teachers can include working with the food service director to coordinate events, nutrition education, and school menus.

On each lesson, a Cafeteria-to-Classroom section highlights ideas on how school meals and classroom nutrition education can support each other. Schools looking for a connection may appreciate ways to celebrate Wisconsin through Wisconsin Wednesday promotions. It's easy and fun to highlight local foods on the menu on a designated day of the week. The promotion can be part of a harvest-of-the-week or -month program, or a chance to feature a garden's abundance. Promote Wisconsin Wednesdays on the menus, and classes can research Wisconsin facts to go with the menu.

The USDA Team Nutrition resource, *Fruits and Vegetable Galore, Helping Kids Eat More* is recommended for all school nutrition directors to use to provide ideas for Wisconsin Wednesday and other coordinating menu ideas. This resource is available free for all Team Nutrition Schools through USDA. Many other food service and nutrition education materials are available through USDA Team Nutrition. The team nutrition enrollment form and directions on completing the form are found on the USDA team nutrition website, <http://teammnutrition.usda.gov/team.html>. Once your school is enrolled, use the online order form at <http://teammnutrition.usda.gov/library.html> to request free materials.



Cafeteria to Classroom to Community Connections

These are ideas to extend the Nutritious, Delicious, Wisconsin curriculum outside the school and into the community.

- Encourage parents and local restaurants to continue the Wisconsin Wednesday theme by serving a special local food item every Wednesday.
- Celebrate a “Home Grown” fruit or vegetable of the month. Plan activities with the local librarian, art teacher, and classroom teachers. Pick a Wisconsin food to highlight each month on the school menu, and share the food of the month with the public library staff. Interconnections can be made when public library activities include the same food of the month in stories, art projects displays (stampings, still life drawings, collages), and tastings hosted at the public library. This activity can also be connected to city events, such as harvest festivals and park and recreation events.
- Sponsor a nutrition minute. Provide a nutrition trivia fact to be read after the menu during morning announcements at school. Post the trivia facts on the district website, on menus, and in the local paper. Classroom teachers can have students share interesting Wisconsin food facts in the classroom or for posting on a bulletin board. (Parent groups can help with this, too.)
- Encourage teachers and parents to eat lunch with their children at school. Have teachers “talk it up” about nutritious meals and snacks, and what is offered in the school meal program. School nutrition staff can partner with teachers during parent conferences to showcase how classroom instruction is being applied at mealtime and have children share what they have learned.
- Invite students and parents on a guided tour of the cafeteria. Show how food comes to the school and is prepared for meals. Display a variety of foods from the Five Food Groups (on the menu) and discuss the importance of getting foods from each group. Showcase foods from Wisconsin on the menu.
- Feature a gallery of nutrition. Encourage teachers to conduct poster contests related to a specific food or nutrition concept. Have the school district and local paper feature the winning posters on menus, calendars, in the cafeteria, at city hall, at local businesses, and as art show entries.
- Consider a local food harvest promotion in your community. Have local businesses sponsor a Wisconsin food, and display student art and writings about that food on the business site (such as in display windows, lobby areas, office areas). Work with local grocery stores to highlight the nutritional value of local foods in conjunction with the promotion. Invite the community to view the displays while shopping local businesses.

Nutrition Color Chart

Color	Fruits and Vegetables (* can be grown in Wisconsin)	Benefits
Blue and Purple	*blackberries, *blueberries, *plums, figs, *grapes, raisins, *purple cabbage, *eggplant, *purple-fleshed potatoes	Blue and purple fruits and vegetables are especially good sources of phytochemicals such as anthocyanins and phenolic compounds. They are also high in vitamin C and fiber.
Green	avocados, kiwi, *green apples, *peas, *green grapes, artichokes, *lettuce, *asparagus, *celery, *broccoli, *spinach, *green beans, *green cabbage, *cucumbers, limes, okra, *Brussels sprouts, *green leafy vegetables (including collard greens, kale, mustard greens, spinach, Swiss chard, and watercress), *green onions, *zucchini	Green fruits and vegetables are sources of phytochemicals such as chlorophyll, lutein, and indoles. They contribute in iron, fiber, calcium and magnesium, vitamins C, E, K, and many of the B vitamins to a healthy diet.
Yellow and Orange	*carrots, oranges, apricots, cantaloupes, lemons, mangoes, nectarines, peaches, papayas, *sweet potatoes, pineapple, *corn, *butternut squash, *yellow beets, *yellow peppers, *pumpkins, *yellow potatoes, *rutabagas, *yellow summer squash, *yellow winter squash	Yellow and orange fruits and vegetables are sources of antioxidants, such as vitamin C, carotenoids, and bioflavonoids.
White, Tan, and Brown	bananas, *cauliflower, *garlic, ginger, *mushrooms, *onions, *turnips, *parsnips, Jerusalem artichokes, jicama, *kohlrabi, *shallots, *white corn, *white-fleshed potatoes	White, tan, and brown fruits and vegetables are especially good sources of anthocyanins. Additional nutrients will vary by the fruit or vegetable.
Red	*red apples, *tomatoes, *cherries, *cranberries, *beets, *red peppers, *radishes, *watermelon, *raspberries, *rhubarb, *beets, *radicchio, *red onions, *red potatoes	Red fruits and vegetables contribute phytochemicals, such as lycopene, and anthocyanins to a healthy diet.

Read more: <http://www.kids-meal-ideas.com/fruit-and-vegetable-nutrition-chart.html#ixzz1CMLcOoOV>

