

Spear Asparagus



[20-30 minute lesson]

Objectives: Students will be able to...

1. Identify Asparagus as a vegetable that is grown in New York State that is in season in the Spring.
2. Describe how to select and prepare fresh Asparagus.
3. List different ways to cook and eat Asparagus.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Spear Asparagus Trading Card

Step 2: Discuss “Why-to” Spear Asparagus; Focus on how Asparagus is a special springtime fast food. Ask students, “What foods do you think of when someone mentions Springtime?” Spring is when Asparagus is in season and one of the first vegetables they will find at the beginning of the growing season. Refer to the [Pride from A\(pples\) to Z\(ucchini\) Harvest Charts](#). Spring onions and green garlic are harvested at the same time and also happen to be relatives of asparagus. Discuss with students that although they may have seen asparagus in the grocery store during other seasons, spring is when they can find fresh New York State asparagus in farmers’ markets and some grocery stores. LOOK for interesting varieties besides green, like white, purple, or delicate wild asparagus.

SNAP AND GO WITH ASPARAGUS. Explain that fresh asparagus is firm and smooth. Show students how easy it is to prepare asparagus; demonstrate how fresh asparagus naturally breaks with a “snap” at the tough base of the stem. Just snap, rinse, and it is ready to go!

Asparagus is high in vitamin C, vitamin K, and folate. Asparagus is also a good source of vitamin A, vitamin E, and potassium. Vitamin C is an antioxidant that is important for wound healing and immune function. Vitamin K is important for blood clotting and bone health. Folate plays a key role in growth and development.

Step 3: Do the Asparagus Snap!

1. Ask students to stand up tall and stretch their hands high above their heads like a fresh spear of asparagus.
2. Demonstrate a “snappy” move (i.e. jumping jacks) and encourage students to come up with their own move to go with the snap of asparagus.
3. Have students demonstrate their moves and try one another’s.

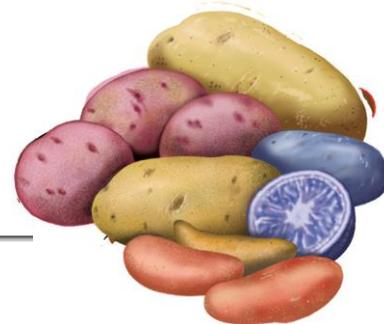
Step 4: Have Students Break into Groups to Discuss Ways They Might Try Asparagus in the Future

Examples:

1. Cold with a favorite dip.
2. Hot off the grill.
3. Roasted with some garlic.
4. Crunchy in a stir fry.
5. Blended in a soup.

Ask students to raise their hands if they will encourage their families to spear more NYS asparagus.

Dig into Potatoes



[20-30 minute lesson]

Objectives: Students will be able to...

1. Explain what happens to a potato that becomes a fast food French fry and why it is less healthy than a whole potato.
2. Name at least three different types of potatoes.
3. Make a commitment to trying different potatoes.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Dig into Potatoes Trading Card

Step 2: Anatomy of a Fry. Ask students to think about what happens to a potato that becomes a French fry, and show them the following flow chart: **Peeling → Cutting → Frying → Salting**

Have Students Break into Groups to Discuss what happens to the potato in each step:

1. How does the potato change?
2. Does the step make the potato healthier, less healthy or make no difference?

Write students’ answers in a chart and explain how and why the potato becomes less healthy as a fry.

Peeling	taking off the peel/skin	Less healthy	Potato skin contains fiber , which is important for maintaining a healthy digestive system.
Cutting	making it all the same shape and size	No difference	Having your potato cut into uniform shape and size means they will all be done cooking at about the same time.
Frying	Cooking in a lot of hot oil	Less healthy	Deep frying adds calories and fat to your potato. Most of the calories and all the fat in fries are a result of deep frying.
Salting	Adding salt	Less healthy	Most Americans eat too much salt, which contributes to high blood pressure.

Ask students to name other ways to cook and enjoy potatoes and write these on the board.

Step 3: Discuss “Why-to” Dig into Potatoes; Focus on the numerous colors and shapes potatoes come in.

Discuss the many different types of potatoes grown in New York State.

1. Ask students to raise their hand to name a potato and tell students names of unfamiliar potatoes on the Dig into Potatoes Trading Card. (**Russet, Red Potato, Yellow/Gold Potato, Fingerling, Adirondack Blue**).
2. Tell students that most restaurant French fries and potato chips are made from Russet potatoes, and ask students what unfamiliar Potatoes are you interested in trying?
3. GIVE ME SOME SKIN – Ask students to commit to trying potatoes with skin by giving you a high five.

Remind students that they can find the New York State potatoes from the Dig into Potatoes Trading Card and discover other potato varieties at the farmers’ market.

Taste Tomatoes

[20-30 minute lesson]



Objectives: Students will be able to...

1. Explain that umami is a Japanese concept that describes the meaty, savory taste found in tomatoes.
2. Articulate why local NYS tomatoes taste different from tomatoes from far away.
3. Commit to eating a local tomato.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Taste Tomatoes Trading Card

Step 2: Discuss “Why-to” Taste Tomatoes; Focus on Umami in Tomatoes

IT'S SO UMAMI, MOMMY! Ask students, “What are the basic tastes?” Tell students to raise their hands if they have an answer and write them on the board. Prompt with questions until you have them all:

- Sweet (How does an apple taste?)
- Sour (How does a lemon taste?)
- Salty (How do potato chips taste?)
- Bitter (How does coffee/grapefruit taste?)

How about umami? **Umami** is called the 5th taste by some and was discovered by a Japanese scientist named Ikeda. Ikeda found that humans can detect a compound called glutamic acid. You might know it as a part of MSG or monosodium glutamate. Umami roughly translates as savory, meaty, brothy and delicious. Really tasty foods are rich in umami. Tomatoes and mushrooms are two of these foods. Parmesan and other aged cheeses are also umami. Can you think of other foods that might be umami?

Examples of other foods: dried fish, seaweed, soy sauce, ham, chicken broth

Step 3: The Local Tomato Challenge. ALL TOMATOES ARE NOT EQUAL. Ask students if they have noticed that some tomatoes taste better than others. *What are the features of a tasty tomato versus a not so tasty tomato? Color? Smell? Texture? Vine-ripened tomatoes taste better because they are picked when they are ripe. Tomatoes that must travel a long distance are picked when they are still green because they are still hard and easier to transport without damage. In August and September, you can find many tomatoes in the farmers’ market. Set up the challenge: Buy one tomato from the farmers’ market and one tomato from the grocery store. (Ask your grocery store manager where the tomatoes were grown.) Cut each tomato into bite-sized pieces and transfer the pieces to two different plates. Ask your family members or classmates to try one bite from each plate and choose the tastier tomato. Record the responses and reveal the winning tomato after everyone has taken the challenge.*

Step 4: Have Students Break into Groups to Discuss Ways They Might Try Tomatoes in the Future

1. What are ways to eat raw tomatoes?
2. What are ways to eat cooked tomatoes?
3. What is your favorite way to enjoy tomatoes?

Ask students to raise their hands if they will encourage their families to take the Local Tomato Challenge and taste more NYS tomatoes.

Pile on Peas

[20-30 minute lesson]



Objectives: Students will be able to...

1. Identify peas as a member of the legume family and different ways peas are sold (fresh, frozen, canned).
2. Write an alliterative sentence about peas using many P's.
3. List different ways to enjoy peas.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Pile on Peas Trading Card

Step 2: Discuss “Why-to” Pile on Peas; Focus on the coolness of eating different parts of pea plants.

PLEASED TO EAT PEA PARTS! Discuss how we can eat the pods and seeds, as well as stems and leaves of most pea plants. Pea flowers are both beautiful and edible! Peas are a member of the legume family, all legumes produce seedpods and are considered Nitrogen fixers. Other common legumes we eat are string beans, soy beans (a.k.a. edamame), and peanuts. Peas are rich in A, C, K and iron. Peas are also a good source of calcium, iron, phosphorous, and potassium.

FRESHNESS MATTERS! The Pea Poll: Ask students to raise their hands if they have tried fresh, frozen or canned Peas. Ask students to share their thoughts on the differences between fresh, frozen and canned Peas. Prompt students by asking about color, texture, and taste. Make a list of attributes for each type of pea. Reflect results of the Pea Poll. Tell students that fresh peas have the most nutrients, followed by frozen, then canned. Ask them how they feel about this information and what they might do as a result.

Step 3: Peas, P's and Parts of Speech. Ask students to think of “P” words that are nouns, verbs or adjectives. Write the words down and ask students to make sentences using “Peas” and as many other “P” words as they can. Ask students to count how many “P” words they used and have them share their sentences with the class by reading them aloud. Starting with those who used the fewest “P” words and end with the student who used the most “P” words.

Examples:

Nouns: peas, pals, paint, pan, pot, plastic, plum, poster, pear, pole, pet, pencil, plate

Verbs: play, pull, push, peel, pose, pester, pretend, practice

Adjectives: purple, plush, practical, positive, pretty, plump, pale, powerful

Sentence: Paula and Pete like to pile plump Peas on their plates.

Step 4: Have Students Break into Groups to Discuss How to Eat Piles of Peas.

1. What type of peas have you tried? (garden, snap, snow)
2. What are ways to enjoy peas as a main ingredient? (pea soup, mashed as a side dish)
3. What dishes can you easily add peas? (salads, rice, stir fry, soups, stews)

Encourage students to look for fresh NYS peas in the spring and summer when they are in season. Remind them that peas are packed with power; ask them to raise their hands if they will encourage their families to pile on more NYS peas.

Rock with Broccoli

[20-30 minute lesson]



Objectives: Students will be able to...

1. Articulate the connection between eating well with “superstar foods” and feeling good.
2. Design their own Broccoli Rock Stars.
3. Commit to eating more broccoli in the future.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Rock with Broccoli Trading Card

Step 2: Discuss “Why-to” Rock with Broccoli; Focus on the connection between eating well and feeling good. SUPERSTAR KIDS EAT SUPERSTAR FOODS! Broccoli is rich in vitamins A, C, K and folate. These vitamins are all important for growth, development and staying healthy and strong. Ask students to think about a Saturday when they felt tired or sick and what kinds of activities they did on that day. Then ask students to think about a Saturday when they felt especially strong and energetic. What kinds of activities did they do on that day? Make a chart with a “Low” column and a “High” column. Reflect to students what they did on Low-energy days and High-energy days. Tell students that eating more superstar foods like broccoli will help them have more High-energy days and fewer Low-energy days, which means doing more and being the best they can be.

Ask students to raise their hands if they want to eat more broccoli.

Step 3: Have Students Break into Groups and Design Their Own Broccoli Rock Star Band.

1. What is the name of the Broccoli Band? (The Brassy Brocs)
2. What is the name of each member of the band? (Rocco)
3. What is the role of each member of the band? (lead singer)
4. Name a fun fact about each member of the Broccoli Band.
(He loves garlic)
5. What is the name of the Broccoli Band’s most popular song/rap?
(Broc’ in the House)
6. Why are you a broccoli fan? (It tastes good/ it’s good for me/it’s just cool)



Source:
<http://www.squidoo.com/leaves-coloring-page>

SUPPLEMENT Have students write lyrics/music for their Broccoli Band song or rap.

Pass out blank broccoli coloring pages. Use the template to the left or create your own broccoli coloring page. Provide crayons, pencils or markers. Ask students to design a Broccoli Rock Star to be a member of their group’s Broccoli Band. Ask students to introduce their band to the world.

Ask students to raise their hands if they will encourage their families to invite some NYS broccoli to rock out at their next party.

Chow Down on Cherries



[20-30 minute lesson]

Objectives: Students will be able to...

4. List 3 reasons cherries are special.
5. Use a chart to figure out how many pounds of cherries are needed to make a pie.
6. Make a commitment to trying NYS cherries.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Chow Down on Cherries Trading Card

Step 2: Discuss “Why-to” Chow Down on Cherries; Focus on the Many Reasons Cherries Are Special.

CHERISH CHERRIES. Cherries are a favorite treat because of their beautiful color, sweet-tart flavor, and distinct aroma. New York State farmers harvest cherries for about one month, mostly during July. Cherries are so tasty; it’s easy to forget that there are other good reasons to enjoy them. Cherries are rich in vitamin C and fiber and a good source of phytochemicals, all important for protecting our bodies against disease. Cherry trees are also treasured for their beautiful pink and white flowers that bloom in the spring. The various types of cherry trees bloom sometime between mid-April and May, and the blossoms last for only 7-10 days.

Step 3: Filling a Cherry Pie Chart = Cherry Math Frozen and canned New York State cherries are available throughout the year because farmers pick and process millions of pounds of cherries during the month of July when they are in season. It takes about 4 cups of fresh cherries to make a cherry pie. When you go to the farmers’ market or store, you might find that cherries are sold by weight. A pound of fresh, whole cherries will give you a little over 2 cups of pitted cherries. How do you know how much to buy? What if you plan to make 2 pies? Ask students to break into groups and work together to complete their charts.

2 lbs. of cherries will give you more than 4 cups of cherries, which is enough to make 1 cherry pie. Show students the following formulas to help them to complete their Cherry Pie Chart:

$$\underline{\quad} \text{ pies} \times 4 \text{ cups of pitted cherries/pie} = \underline{\quad} \text{ cups of cherries}$$

$$\underline{\quad} \text{ pies} \times 2 \text{ pounds of whole cherries} = \underline{\quad} \text{ pounds of cherries}$$

Demonstrate measurements for younger students using beads, marbles, or real cherries!

Number of Pies	Cups of Pitted Cherries	Pounds of Whole Cherries
 1	 4	 2
2	8	4
3	12	6

SUPPLEMENT Add another column to the Cherry Pie Chart and have students calculate how much the cherries for their pies will cost if the price of cherries is \$4.00/pound.

(Clipart source: www.leehansen.com & www.clker.com)

Step 4: Make Cherry Sauce – Combine 4 cups of pitted cherries, 1 cup of sugar and 2 tablespoons of quick tapioca in a 2-quart sauce pot. Bring mixture to a boil over medium heat, stirring frequently. Simmer 2-3 minutes until sauce is thickened. Cool and enjoy over plain yogurt, ice cream, or come up with your own cherry treat! (Recipe adapted from Joy of Cooking)

Ask students to cheer if they will encourage their families to cook and eat more NYS cherries.

Pick Pears

[20-30 minute lesson]



Objectives: Students will be able to...

1. Name 3 different varieties of pears.
2. Name and identify pear parts.
3. Describe how pears look, feel, and taste.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Pick Pears Trading Card

Step 2: Discuss “Why-to” Pick Pears; Focus on the many varieties of Pears. PLENTY OF CHOICES.

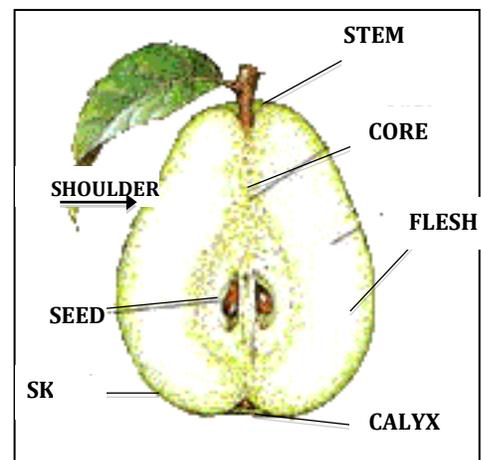
There are many different pears grown in New York State, and some of the most popular include Bartlett, Anjou, Bosc, Comice, and Seckel. These range in color from red, yellow, brown and green. Pears are harvested from mid-August through October and available through the winter. Like apples, onions, potatoes, carrots, and other root vegetables, Pears are a winter storage crop; some pears are harvested to be sold right away in grocery stores and farmers’ markets, while some are stored in cool, dark warehouses to be sold months later. Pears are a good source of vitamin C, fiber and potassium.

Ask students to raise their hands if they have tried pears before. Follow up by asking students to pick a word to describe how pears look, taste, and feel. Write these descriptive words on the board.

Step 3: PAIRS and PEAR PARTS. Have students work in groups to learn the parts of the pear.

Materials: Fresh pears, kitchen knife, plates or paper towels, pear diagrams, toothpicks, drawing paper, pencils.

1. Review the parts of the pear using a diagram like the one shown here.
2. Split the pears lengthwise through the core and distribute one pear half to each group of students.
3. Ask students to locate each part shown in the diagram on their pear. Use toothpicks for pointing.
4. Ask students to individually or together create their own pear diagram by drawing a picture of their fresh pear and labeling all the parts.
5. When students have finished their diagrams, ask them to find the other half of their pear. Join the halves and determine if they match.



SUPPLEMENT Pear taste test: Cut additional pears into bite-size pieces, and label each type. Have students write down which pear(s) they tasted. Ask students if they have words to add to the list of pear describing words from the previous activity.

Ask students to raise their hands if they will encourage their families to pick more NYS pears.

PEAR PART Activity and illustration adapted from USA Pears: <http://pears.usapears.org/justForKids/activities.asp>

Feast on Beets



[20-30 minute lesson]

Objectives: Students will be able to...

1. Articulate that beets are packed with vitamins and minerals.
2. State that beets absorb minerals from the earth.
3. Make Beet dye and use it to create beet art.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Feast on Beets Trading Card

Step 2: Discuss “Why-to” Feast on Beets; Focus on the Nutrient Density of Beets. BEETS CAN’T BE BEAT! Beets are rich sources of vitamin A, vitamin C, and folate. They are also good source of iron, potassium, and phosphorous. Ask students to break into groups and discuss how beets become such power-packed foods. Encourage students to think hard and use their imagination.

1. How do you think all those vitamins and minerals end up in beets?
2. Why do you think beets are described as “earthy” sometimes?

Have students share their answers. Confirm or explain that beets absorb MINERALS through their ROOT SYSTEM and use SUNLIGHT, WATER and other nutrients absorbed through their roots to SYNTHESIZE or make vitamins themselves! Digging up a beet is like mining the earth for gold or diamonds and eating them means getting the minerals we need to stay healthy and strong. Most people think of the beet’s root as the only edible part of the plant, but did you know that the leaves and stems of this amazing plant are nutritious and delicious, too?

Step 3: Beet Art. Beets can be used as a natural dye and have been used by Native Americans to add a deep red color to clothing, baskets, and other handmade items. People also use beets as an alternative to artificial red color in foods, like pasta, candy, and even cakes!

MATERIALS: Fresh red beet root (A pound of beet roots makes about 3-4 cups of dye), large hole box grater, potato masher, 2 large mixing bowls, water, fine mesh strainer, paint brushes, water color paper, aprons or smocks to protect clothes.

1. Wash beets well, scrubbing to remove any dirt or sand, and trim stems if still attached.
2. Use a box grater to shred beets. Place shreds into mixing bowl.
3. Measure volume of beets and add an equal amount of cold water. (2-3 cups per pound of beets)
4. Use potato masher to mash beets in water or mash by hand (wear gloves to avoid staining skin).
5. Strain beet dye into a second bowl.
6. Use ink to paint a beet-inspired work of art or write a beet message!

Notes on extracting beet juice: Students may mash shreds and water by hand in resealable plastic bags. You may use a blender to extract more color. Blend shreds and water at medium speed for one minute. Then proceed with Step 5.

****SUPPLEMENT**** Use your homemade beet color to dye fabric! Cut pieces from old pillowcases, sheets or t-shirts. Soak items in dye overnight. Fix color of dyed fabric by soaking for one hour in a mixture of 1 part white vinegar and 4 parts water. Rinse dyed items with cold water to remove excess dye; hang dry.

Remind students that NYS beets are available through most of the year. Ask students to raise their hands if they will share the amazing qualities of beets at a feast with their family.

Beet dye recipe adapted from “Vegetable Dyes are Hard to “Beet,” Native Americans by Teacher Created Resources.

Polish off Peppers



[20-30 minute lesson]

Objectives: Students will be able to...

1. Describe 3 things to look for in a perfectly ripe pepper.
2. Create a poster that describes different NYS peppers and their relative heat.
3. Make a commitment to eat more NYS peppers.

Step 1: Review “Did you know...?” Fun Facts on the Back of the Polish off Peppers Trading Card

Step 2: Discuss “Why-to” Polish off Peppers; Focus on the Festive Nature of Peppers. WE EAT WITH OUR EYES. Peppers are beautiful seed pods that come in nearly every color of the rainbow. When we choose the best looking peppers, with firm flesh, rich color, and shiny skin, we get peppers that are at their peak, packed with the highest levels of vitamins and phytochemicals they can have. Peppers are rich sources of vitamin C and good sources of vitamin A.

Ask students to think of ways they have enjoyed peppers or seen others enjoy peppers and make a list under the heading, PEPPER POSSIBILITIES. Ask students about ways to eat peppers raw and cooked, sweet and spicy.

Step 3: Create a Pepper Hotness Graph. DID YOU KNOW sweet bell peppers and spicy chili peppers are genetically nearly identical? The scientific names of bell peppers and chili peppers all begin with the genus *Capsicum*. The main difference between these two groups is that chili peppers produce capsaicin [kap-say-uh-sin], the chemical that makes your mouth feel like it is on fire.

NYS Pepper	Description	Scoville Heat Units*
Sweet Bell	Sweet	0
Banana	Sweet	0-500
Cubanelle	Sweet	100-1000
Jalapeño	Medium	2,500-5,000
Scotch Bonnet/Habanero	Hot	100,000-350,000

The hotter the pepper, the more capsaicin it produces. The SCOVILLE SCALE is a system for rating the relative heat of peppers. Growing conditions, like the type of soil and weather, affect how hot a pepper becomes.

*Source: <http://chiliworld.org/>, <http://missvickie.com/howto/spices/peppers/peppersdict.html>

Have students break into groups and use the information about NYS Peppers to make a poster that illustrates the hotness of different peppers. Students can choose to create a BAR GRAPH, use COLOR CODING, or even DRAWINGS of facial expressions to convey the effect of eating each pepper.

****SUPPLEMENT**** Have students research one of the pepper varieties in the chart and add details to their posters: How do you identify the pepper? What region or country is the pepper from originally? What are popular dishes using your pepper?

Remind students that all NYS peppers (sweet, mild, medium or hot) are delicious and nutritious. Ask students to raise their hands if they will encourage their families to polish off more NYS peppers.