Zucchini

GRADE K-1

Month: September
Time Required: 30 minutes
Alternative Tastings: Tomato, Cucumber, Squash

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to distinguish summer and winter squash.
- ❑ Students will be able to identify the edible parts of summer squash.

Materials

- ❑ Whole zucchini
- ❑ Two varieties of summer squash (zucchini, yellow summer squash, straightneck, crookneck, patty pan)
- ❑ Two varieties of winter squash (butternut, acorn, delicata, spaghetti, pumpkin)
- ❑ Serving spoon or squeeze bottle for dressing
- ❑ Paper plates and forks
- ❑ Optional: Prepared bag of spiralized zucchini noodles (or demonstrate this during the lesson) and tongs for serving noodles

Preparation

- ❑ Prepare Honey Mustard Dressing and store in a plastic condiment bottle in the refrigerator or select a dressing of your choice.
- ❑ Optional: Wash zucchini, preparing to spiralize it as an in-class demonstration, or process zucchini with a spiralizer to make noodles ahead of time. Portion into food storage bags, one for each class.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1. Patterns

First grade - 1-LS1-1. LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science connection: Patterns of what plants need to survive (K) & plant parts (1st)

Recommended Books

"Pumpkin Circle: The story of a Garden" by George Levenson
"Mrs. McNosh and the Great Big Squash" by Sarah Weeks
"Seeds! Seeds! Seeds!" by Nancy Wallace
"Vegetables! Life on a Produce Farm (Food From Farmers)" by Ruth Owen
"Muncha! Muncha! Muncha!" by Candace Fleming
"Zucchini Poem" by Robyn Reese

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

If this is your first lesson of the year, introduce yourself to the class and to Pick A Better Snack. Share with students, *When I come to your classroom every month, we're going to have fun trying foods together and learning about each other. So here's something I want to learn about you…* (have students stand up in a circle)

2. Engage Activity: *6 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Physical Activity: Act it Out!

Think in your head (can put fingers up to temples and close eyes), what is something you like to do in the summer? When I say our magic word "zucchini," I want you to silently act out what you're thinking of. Ready? Zucchini! Encourage students to act out the activity for a least 10 seconds. Observe all students' activities and ask a couple of students to share their activity with the class (use pick-a-stick to randomly select students to share). Repeat several times, allowing students to act out different summer activities.

Option: Do another round of Act it Out, asking students to share something they like to do in the winter.

Explore

3. Experiential Learning: *10 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Seat in four small groups (opportunity for 3 deep breaths).

Summer is the season when we grow and eat summer squash. Squash needs lots of sun and warm weather to grow, so it grows well in the summer. Squash also needs a regular source of water to grow. There are other types of squash called winter squash. Winter squash also grows in the summer, but we can store it and eat it in the winter.

Summer + Winter Squash Exploration

I brought several different kinds of squash with me today, and I want you to work together to figure out if it is a summer squash or winter squash! We're going to use our senses to observe different types of squash and look for patterns in their similarities and differences. Split students into four smaller groups. Give two groups each one summer squash (ex: zucchini, yellow summer squash, straightneck, crookneck, patty pan squash), and two groups one winter squash (ex: butternut, acorn, delicata, spaghetti, pumpkin). Ask students to observe the squash using their senses. As a group, they will come up with three words to describe the squash.

Explore (cont'd)

Once each group has come up with their three words, compare the words as a class. Consider writing the description words on the white board for each group. Show the squash from each group as you read through and discuss the descriptive words. Did some of the groups come up with similar words? Did some groups come up with different words? Discuss the difference in how the skin on the squash feels: soft (summer squash) versus hard (winter squash). *Summer squash has soft skin and winter squash has hard skin, so it can be stored and eaten in the winter when it can't grow outside. Think about the skin on your group's squash; do you think it was a summer or a winter squash?* Give students time to decide as a group, or lead a choral response, having all students share at one time. Then, clarify which groups have winter and summer squash and how you can tell the difference.

You can eat the skin of summer squash because it's soft. The seeds on the inside of summer squash are also soft, so you can eat those too. You can eat all parts of summer squash raw, or you can cook and eat it. Winter squash, however, has hard skin and hard seeds. Because of the hard skin, winter squash needs to be cooked before you eat it. You can roast the seeds from winter squash and then eat those, too. Summer squash grows faster than winter squash. It can be planted and harvested twice in the summer. Winter squash, however, needs the whole summer to grow and is harvested in the fall. It can be stored and eaten during the winter.

Show a whole zucchini to the class. *Today, we're going to taste a type of summer squash called zucchini. What are we tasting today* (choral response: *"zucchini!"*). *We are going to taste a fresh zucchini and sample it with a delicious dressing.*

Optional: Food Preparation Demonstration:
I'm going to show you a cooking tool called a spiralizer that can turn our zucchini into noodles because of its soft skin. You can eat all parts of zucchini. Process one or more zucchini into noodles, enough for all students to sample. Point out the skin on the outside, seeds on the inside of the zucchini, and the stem where the zucchini connected to the plant.

4. Tasting Activity: *3 minutes*
The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Before you pass out any zucchini, be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). As students receive their samples, ask them to use their senses to learn about the zucchini while they wait.

Pass out small paper plates and one or two pieces of fresh zucchini (slices, sticks or spiralized). Give each student a squirt of dressing on their plate to dip the zucchini. Consider using this Honey Mustard Dressing recipe from Iowa State University's Spend Smart. Eat Smart.

Optional: Distribute a slice of zucchini along with the spiralized zucchini noodles. Discuss similarities and differences between the two.

Reflect

5. Voting Activity: *3 minutes*
This is a time for students to give their opinion on what they tried!

As students taste the zucchini and dressing, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *6 minutes*
Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Choral Response:
I'm going to ask a question and you're going to quietly think to yourself. When I say our magic word, "zucchini," you can say your answer aloud. Let's practice…

- *What month is it?* (September)
- *Whose class am I in?*
- *What vegetable did we try today?* (Zucchini)
- *Is zucchini a summer squash or a winter squash?* (Summer Squash)
- *How do you know zucchini is a summer squash?* (soft skin, grows in summer, soft seeds, harvested before it's fully grown)

Asking Discussion:
Raise your hand if you're excited to go home and tell your family about tasting zucchini.

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, what else do you remember about zucchini? *Where could you buy zucchini?*

*Leave newsletters and stickers with the teachers to pass out.

Additional Materials

Physical Activity

"Stories in Motion: A Visit to the Vegetable Patch" (Get Movin' Activity Breaks, page 59)
More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Zucchini

- You can eat all parts of summer squash – skin, seeds, and flesh – raw or cooked.
- Zucchini is usually dark green in color.
- Choose zucchini that has smooth, shiny skin and feels heavy for its size. Ripe zucchini is firm and gives slightly to pressure.
- Zucchini can be stored for one week in the refrigerator in a plastic bag. Wash before using.
- Once zucchini has been cut up, it can last for three days in a sealed bag or container in the refrigerator.

Facts About Zucchini

- Zucchini is a warm season crop. It has a short growing season compared to melons and cucumbers. Once the fruit starts to grow, it can grow one inch per day.
- Zucchini is a summer squash. It is different from winter squash because it is harvested and eaten before it matures, so the rind is soft. It is the most common summer squash.
- Zucchini is best when picked small (about 6-8" long).
- Zucchini is considered a vegetable in our diet, but botanically it is the immature fruit of the plant.
- A zucchini plant has large, dark green leaves.
- Zucchini originated in Italy, but most squash varieties came to America from Europe.
- The Native Americans introduced squash as one of the "Three Sisters." The three native plants used for agriculture were corn, beans and squash.

Health Connection

- Zucchini is a good source of Vitamin C. Reinforce by putting up your defense shield (cross arms out in front of chest). Zucchini helps to ward off germs and keep us healthy.

References and Resources

https://spendsmart.extension.iastate.edu/produce-item/zucchini-2/
https://snaped.fns.usda.gov/seasonal-produce-guide/zucchini
https://yardandgarden.extension.iastate.edu/how-to/growing-squash-iowa
https://spendsmart.extension.iastate.edu/video/make-homemade-salad-dressing/#video_player
https://homeguides.sfgate.com/zucchini-plants-start-vine-56658.html

This institution is an equal opportunity provider.
This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. It was developed by the Iowa Department of Health and Human Services. August 2024

IOWA Health and Human Services

Pears

GRADE K-1

Month: October
Time Required: 30 minutes
Alternative Tastings: Apple

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to identify pears as fruit.
- ❑ Students will be able to explain the function of our five senses.

Materials

- ❑ Assortment of materials for sensory exploratory activity (ex: stuffed animal, whistle, book, herbs, pear/apple)
- ❑ Opaque box or paper bag for mystery, sensory exploration
- ❑ Plastic knives (optional)
- ❑ Paper plates or napkins
- ❑ Fresh pears or apples – This is a good month to source local! Consider slicing in class with a pear/apple slicer.

Preparation

- ❑ Gather an assortment of materials for the sensory, exploratory activity.
- ❑ Optional: Use a “5 Senses” body part poster for a print or digital visual aid in discussing senses. See a resource for free poster downloads in the References and Resources section on the last page.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1. Patterns

First grade - 1-LS1-1. LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ “Asking” Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Making Observations

Recommended Books

“Too Many Pears” by Jackie French
“Are We Pears Yet” by Miranda Paul
“Apple Picking Time” by Michele Benoit Slawson
“Farming” by Gail Gibbons
“Food From Farms (World of Farming)” by Nancy Dickman
“From Seed to Plant” by Gail Gibbons

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

If this is your first lesson of the year, introduce yourself to the class and to Pick a Better Snack. If this is your second lesson of the year, briefly review the feature of last month's lesson and what they learned. *Did you ask for zucchini at home?*

2. Engage Activity: *6 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

When I come to your classroom, we're going to have fun trying foods together and learning about each other. We will learn about different fruits and vegetables. These are foods that are good for us and help us grow. We will also move our bodies each time I visit. Moving our bodies is also good for us and helps us grow strong. Today, before we learn about the fruit I brought, let's move our bodies.

Physical Activity:

Lead students through the "Shakedown" physical activity (page 13 of Brain Breaks booklet). Explain to students that they will need to remember two details.

- First, they need to remember "5-4-3-2-1."
- Second, students need to remember "hand, hand, foot, foot." Demonstrate this by shaking one hand, then the other. Then kick out one foot, then the other. Explain to students that they will combine these two things.

Lead students in the "Shakedown."

- Shake one hand five times, counting out loud "5-4-3-2-1." Repeat with other hand.
- Then, kick out one foot five times, counting down "5-4-3-2-1." Repeat with the other foot.
- Repeat all the motions again, counting down from 4 times, then 3, then 2, then 1.

Source: FoodCorps Iowa

Good job! Doesn't it feel good to move! Now, here's something I want to learn about you…

Think in your head (can put fingers up to temples and close eyes), what is something your body helps you do? On the count of three, I want you to tell me what you're thinking of. 1-2-3. Listen to all students' responses and ask a couple of students to share their response with the class.

Explore

3. Experiential Learning: *8 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit (opportunity for 3 deep breaths).

Our bodies help us do all kinds of things (recall student examples: our feet help us dance, our arms help us hug, etc.). *We have 5 special body parts that help us explore and learn every day. These body parts give us our 5 senses. How many senses? (*choral response: *"5 senses").*

Explore (cont'd)

When we use our 5 senses to explore the world around us, we are observing. Use different actions to associate words and movements:

- Our hands help us (choral response, have students gesture to their bodies: touch)
- Our eyes help us (see)
- Our ears help us (hear)
- Our nose helps us (smell)
- And our tongue helps us (taste).

*Visual option: Post a "My 5 Senses" body part poster in a visible location in the classroom; or write words on the board.

Have one opaque box of mystery sensory items in the front of the room. Have the class gesture to the part of their body that they would use to explore the mystery items as you pull them out of the box. Ask the following questions, instructing them to gesture or hold up the corresponding body part. *What sense could we use to observe this* [enter mystery item].

- Touch (pom pom, stuffed animal) - gesture to hands
- Hear (bell, whistle, noise maker) - gesture to ears
- See (book) - gesture to eyes
- Smell (herbs)- gesture to nose
- Taste (pear or apple) - stick out tongue

*Alternate Small-Group Option: Create several mystery boxes of sensory items (pom poms, shaker/noise maker, magnifying glass, herb leaves, a pear or an apple). Tell the class, *In small groups, you will have 3 minutes to quietly explore the mystery box and observe what's inside, using your 5 senses.* Demonstrate a call-back you'll use to get their attention when time is up.

4. Tasting Activity: *6 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

With teacher or student helpers, pass out paper plates and lettuce knives* (plastic serrated knife) to all students. Explain to students, *I'm going to give each of you a slice of fruit called a pear. We're going to take a long time to eat it because we're going to observe and explore everything we can about the pear using our 5 senses before we taste it.*

- **Touch:** Students can close their eyes and feel the pear with their fingers. What does it feel like? Does the skin feel different from the inside?
- **See:** Have students carefully examine the pear, the outside and the inside. What details do they see? Are there any seeds? (Seeds grow on the inside of fruits. Seeds are the part of the plant that can grow into a new plant.)
- **Smell:** Have students bring the pear to their noses and inhale. Ask them to describe the smell.
- **Hear:** Using their plastic knife, have students cut the pear slice into 2-3 smaller pieces. Everyone should be very quiet to listen for any sounds.

*No-Knife Option: Without knives or paper plates, students can tap their fingernail on the skin and listen for any sounds.

Reflect

5. Voting Activity: *3 minutes*
This is a time for students to give their opinion on what they tried!

As students taste the pear, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *5 minutes*
Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Reflection Questions:

- *Will someone share what they liked or loved about the pear?* Select a couple students to share.
- *Will someone share what they would change about the pear?* Select a couple students to share.
- *Raise your hand if you're excited to go home and tell your family about tasting pears.*
- *Is a pear a fruit or vegetable?* (fruit)
- *What is another food (or fruit) you'd like to observe with your 5 senses?*

Asking Discussion:

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy pears? What else do you remember about pears?*

*Leave newsletters and stickers with the teacher to pass out.

Additional Materials

Physical Activity

In Celebration of Farm to School Month: "Stories in Motion: Helping on the Farm." (Get Movin' Activity Breaks, page 64). More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Pears

- Pears don't ripen well on the tree. They are harvested when fully grown but not yet fully ripe.
- Pears are hand-picked, placed in orchard bins and delivered to packing houses, where they are immediately cooled to help ripen consistently.
- To initiate ripening, bring pears to room temperature. Place them in a paper sack on the counter for faster ripening. Refrigerate pears after ripe or to slow the ripening process.
- Pears have a core, which is a hard center part that contains the seeds. We do not eat the core. Eating the skin of the pear increases fiber intake.

Facts About Pears

- Pears are one of the world's oldest cultivated fruits.
- There are over 3,000 known pear types grown around the world. Look for Red and Green Anjou, Bartlett and Bosc, just to name a few.
- Most of the pears grown in the United States are grown in California, Oregon and Washington. The Bartlett pear is America's favorite pear.
- The wood of a pear tree is one of the best woods for manufacturing high quality woodwind instruments.

Health Connection

- A medium pear is about 100 calories.
- It is a good source of Vitamin C. Reinforce with your defense shield (Cross arms in front of chest). It helps to fight off germs and heal cuts and scrapes.
- Pears lead the fruits in sources of fiber (especially with the skin on). Reinforce by rubbing your stomach to show how fiber keeps you full longer and helps with digestion.

References and Resources

https://www.freepik.com/free-photos-vectors/5-senses-poster (Click on an image to download; be sure to include the attribution statement provided.)
http://usapears.org/pears-and-kids-nutrition/
http://usapears.org/pear-varieties/
http://usapears.org/activity-sheets/
https://snaped.fns.usda.gov/resources/nutrition-education-materials/seasonal-produce-guide/pears
https://snaped.fns.usda.gov/seasonal-produce-guide/apples
https://spendsmart.extension.iastate.edu/produce-item/pears/
http://www.farmtoschool.org/
http://www.idalsdata.org/fmnp/index.cfm?fuseaction=main.formFarmersMarketDirectory

This institution is an equal opportunity provider.
This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. It was developed by the Iowa Department of Health and Human Services. August 2024

IOWA Health and Human Services

Sweet Potato

GRADE K-1

Month: November
Time Required: 30 minutes
Alternative Tastings: Carrot, Radish, Jicama, Potato

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to describe characteristics of root vegetables.
- ❑ Students will be able to identify root vegetables as grown underground.

Materials

- ❑ Whole, raw sweet potato
- ❑ Cooler
- ❑ Cleaning wipes
- ❑ Electric skillet or Air fryer
- ❑ Plastic tote (to transport electric skillet)
- ❑ Spatula
- ❑ Power strip (with long cord)
- ❑ Kid-friendly music playlist/speaker
- ❑ Food storage bags
- ❑ Root vegetable examples or images of them for Explore activity
- ❑ Sweet potatoes for tasting (prepped for cooking)
- ❑ Tasting materials (plates, napkins, etc.)
- ❑ Olive oil (or vegetable, canola, etc.)
- ❑ Salt, Pepper
- ❑ Preferred spices (ex: garlic, cumin, etc.)
- ❑ Supplies to clean skillet between classes

Preparation

- ❑ Consider any food prep that should be completed before the lesson rather than during the lesson.

Recommended Books

- ❑ "Oliver's Vegetables" by Vivian French
- ❑ "The Vegetables We Eat" by Gail Gibbons
- ❑ "Strega Nona's Harvest" by Tomi de Paola

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1.
LS1.C Plant needs

First grade - 1-LS1-1.
LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Roots

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

If this is your first lesson of the year, introduce yourself to the class and to Pick a Better Snack.

Share with students, *When I come to your classroom every month, we're going to have fun trying new foods together and learning about different fruits and vegetables.*

2. Engage Activity: *8 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Gather students in a large circle. Have them stand as this is part of the physical activity. *Today we'll be talking about a vegetable that lives in a very special place. But first, I'd like to know something special about where you live.* As an example, share your favorite thing about where you live.

Pass the Potato:

- Ask the question, *what is your favorite thing about where your family lives?*
- *Think to yourself quietly.* Have students close their eyes if they wish, put their fingers to their temples, and think hard.
- Then, pass a sweet potato around the circle, while you play music. Stop the music randomly. Whomever has the sweet potato will share their answer aloud.
- Physical Activity: After a student shares, the class will celebrate them with a "firework clap". All students crouch down, then together you slowly reach for the sky, making a firework noise. When you reach the top, everyone will jump and clap their hands together, making a "shhhhh" noise.
- Repeat as time allows.

Explore

3. Experiential Learning: *10 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit (opportunity for 3 deep breaths).

Today we're going to try sweet potatoes. Sweet potatoes are a type of vegetable called a "root vegetable." There is something very special about where root vegetables live - they grow underground! There are many types of root vegetables that grow underground, and a sweet potato is one kind that we are tasting.

Option 1: Split students into two groups and give each group 1-2 root vegetables (Ex: carrot, radish, beet, potato). Ask students to observe the root vegetable using their senses and compare it to a sweet potato with describing words. As a group, they will come up with three words to describe the root vegetable. Classroom teacher and PABS educator should work with one of the groups.

Once each group has come up with their three words, compare the words as a class. Consider writing the description words on the white board. Did some of the groups come up with similar words? Discuss common traits of root vegetables: hard, solid, bumpy, dirty.

Option 2: Do same activity but as one large group and educator can hold up one root vegetable at a time.

Explore (cont'd)

4. Tasting Activity: *3 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Before you pass out any samples, be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). As students receive their samples, ask them to use their senses while they wait.

There are several ways to try sweet potatoes:
Raw: Spiralize the sweet potatoes and serve with a dip.

Microwave: Before the lesson, pierce whole potato with a fork several times and microwave for 6 minutes, turning regularly. During the lesson, cut in half lengthwise, then score the inside of the potato making horizontal and vertical lines to create a grid - be sure not to cut through the skin!
Then invert the potato skin, revealing perfect cubes to slice off the skin.

Air fryer: Before lesson - prep potatoes (ex: sticks, spiralized strings, small coins). During lesson - toss in an air fryer with olive oil and spice options (ex: garlic, pepper, paprika). You can also use an oven or fry in a skillet. (This is an option to stir the potatoes during the Explore activity).

Reflect

5. Voting Activity: *2 minutes*

This is a time for students to give their opinion on what they tried!

As students taste the potato, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *5 minutes*

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion".

Reflection questions:

- *Will someone share what they liked or loved about the sweet potatoes?* Select a couple students to share.
- *Will someone share what they would change about the sweet potatoes?* Select a couple students to share.
- *Potatoes are a type of what kind of vegetable?* Root vegetable
- *Raise your hand if you're excited to go home and tell your family about tasting sweet potatoes.*
- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*

Leave newsletters and stickers with the teacher to pass out.

Additional Materials

Physical Activity

"Potato Sack Races" (adapted from Team Nutrition Sweet Potato Hill)

Show children the picture of a sweet potato sack race. Have children line up on one side of the room in rows and pretend they are in a sack. Ask one row of students to hop to the other end of the room and wait for rest of class to come across. Hop back if time allows.

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials

What You Need to Know About Sweet Potatoes

- The sweet potato grows underground; it is the root of the plant. Because it grows under the ground, we scrub the outside to remove soil and germs before we cut it open.
- It is very hard when harvested; when you cook it, it becomes soft.
- Sweet potatoes can be long and thin or short and fat, but always taper at the ends.
- Store sweet potatoes in a cool, dry, well-ventilated container. Do not store in the refrigerator as it will produce a hard center and unpleasant taste.
- Sweet potatoes are usually the size of regular white potatoes. The smooth, thin skin can be eaten. Choose firm sweet potatoes with no signs of decay. Look for uniform shape for even cooking. Some sweet potatoes grow in Iowa.
- Find them in the grocery store fresh, canned or frozen.

Facts About Sweet Potatoes

- The Native Americans were growing sweet potatoes when Columbus came to America in 1492. By the 16th century, sweet potatoes were being grown in the southern states.
- North Carolina is the top-producing state of sweet potatoes. They produce 50 percent of the nation's annual crop.
- Sweet potatoes are "cured" (placed in a newspaper-lined box) after harvest for about two weeks. During this time, the sweet potato starch changes to sweet sugar.
- Sweet potatoes are different from yams. Most "yams" labeled in the U.S. are actually sweet potatoes.

Health Connection

- Sweet potatoes are part of the red/orange group in the MyPlate vegetable group. This group is important for our eyes and skin as it has a lot of Vitamin A. Reinforce with super goggles. (Use your fingers to make goggles for your eyes.)
- Sweet potatoes have a lot of Vitamin C, which is important to help cuts heal and keep us healthy. Reinforce with the Vitamin C shield by crossing arms in front of chest.

References and Resources

https://www.fns.usda.gov/tn/discover-myplate-student-workbooks; https://www.fns.usda.gov/tn/myplate
https://snaped.fns.usda.gov/seasonal-produce-guide/sweet-potatoes-yams
https://harvestofthemonth.cdph.ca.gov/Pages/default.aspx
https://spendsmart.extension.iastate.edu/produce-item/sweet-potato-2/
https://fns-prod.azureedge.net/sites/default/files/growit_book4.pdf; https://ncsweetpotatoes.com/

This institution is an equal opportunity provider.
This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. It was developed by the Iowa Department of Health and Human Services. July 2024

IOWA | Health and Human Services

Kiwi

GRADE K-1

Month: December
Time Required: 30 minutes
Alternative Tastings: **Banana**

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to describe a kiwi using their 5 senses.
- ❑ Students will be able to explain how a kiwi grows.

Materials

- ❑ ¼ kiwi with the skin for each student or ½ kiwi with skin and a spoon to scoop kiwi and eat; make sure to get ripe kiwi or buy ahead and allow time for ripening
- ❑ Images of kiwi growing on vines
- ❑ Kiwi video link
- ❑ For optional activity: green yarn, kiwi coloring template (attached in lesson), tape

Preparation

- ❑ Wash and cut kiwi and store in a clean container in the refrigerator. Consider cutting kiwi in class in front of students. For ¼ kiwi per student, cut kiwi in half lengthwise and cut each half lengthwise. (See Knife Skills video in Reference section on the last page.) For ½ kiwi per student, cut kiwi in half through the short center.
- ❑ Have video and photos loaded at the beginning of the lesson.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1. Patterns

First grade - 1-LS1-1. LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ “Asking” Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Making observations (K) & kiwi vines (1st)

Recommended Books

A Fruit is a Suitcase for Seeds” by Jean Richards
“I Love to Eat Fruits and Vegetables” by Shelley Admont

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

2. Engage Activity: *8 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Gather students at the carpet or keep students at their desks. *Today I brought something to taste, and I'd like you to guess what it is. But, before we do that, let's get your brains thinking. I want you to put your fingers to your head* (demonstrate pointing to your temples) *and think of a food that is green.* Give students a minute or so to think quietly to themselves. Then, ask students to share a green food. Students can turn to a partner to share, share all at once when you say "green," or you can call on students.

The food I brought today is green. Let's play "What am I?" to guess what I brought. I am about the same size and shape as an egg. I was named after the national bird of New Zealand. I am green on the inside with little black seeds in the middle. My skin is brown. I am fuzzy on the outside. I am a fruit. What am I? Ask a few students to guess. Give more clues if needed.

Great job! Today we'll be talking about kiwi. Before we learn more about kiwi, let's play a fun game of Red Light, Green light to get our bodies moving.

Physical Activity

Red Light, Green Light (adapted from Brain Breaks booklet, page 21)

1. Choose one student to be the "stoplight." Have them stand at the front of the room. The other students are the "cars" or "walkers," and they start at the opposite wall.
2. The "stoplight" starts the game by saying "Green light!" The other players move forward. Explain how students will move forward (ex: slowly on their tip toes, using a yoga pose, heal-to-toe, etc.).
3. When the "stoplight" calls "Red light!," each player needs to stop and remain still.
4. The "stoplight" then calls "Green light!" and the students move forward. The "stoplight" continues calling "Red light!" and "Green light!" until the students reach the other side of the room.

Have students take turns being the "stoplight" as time allows.

Variations: Allow students to remain at their desks and perform the activities in place; choose activities that get the heart pumping for students to perform on "green." Students will stop and rest on "red." Another idea is to say fruits or vegetables that are green or red (ex: "kiwi" for green and "tomato" for red) instead of the colors "red" and "green."

Explore

3. Experiential Learning: *5 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit where they will eat (opportunity for 3 deep breaths).

We're going to taste a fruit called a kiwi. Kiwis grow on ***vines****.* Note new vocabulary word: vine. Define, write out, and repeat the word vine. *A vine is a long stem that supports the plant as it grows.* Show a picture of kiwifruit growing on vines. *The vine grows up and around posts for support.* Note how the bunches of kiwifruit hang from the vine. *We're going to watch a short video about kiwi. This video talks about two different kinds of kiwi that grow in Oregon.* Show students where Oregon is on the map, if possible. *Watch for the vines with kiwi growing on them in the video.*

Watch Oregon Harvest for Schools' kiwi video (1:25), https://www.youtube.com/watch?v=zySeLrnXoW0, or this kiwi video from Farm Fresh to You, https://www.youtube.com/watch?v=c7UejA4c6Jo, stopping at 1:15. Answer any questions and consider re-watching if time permits, pointing out the vines.

With teacher or student helpers (those passing out fruit must wear gloves), pass out the kiwi to all students. Explain to students, *we're going to use our senses to observe the fruit today before we taste it. We're going to take a really long time to eat it because we're going to observe everything we can about the kiwi using our 5 senses.* Lead students through 5 senses exploration.

> **Touch:** Students can close their eyes and feel the kiwi with their fingers. What does it feel like? How does the skin feel different from the inside?
>
> **See:** Have students carefully examine the kiwi, the outside and the inside. What details do they see? Are there any seeds?
>
> **Smell:** Have students bring the kiwi to their noses and inhale. Ask them to describe the smell.
>
> **Hear:** Have students tap the kiwi with their fingers. Everyone should be very quiet to listen for any sounds.

4. Tasting Activity: *3 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.).

Explore (cont'd)

Taste: Students are invited to taste the kiwi. Give each student ¼ of a kiwi (cut the kiwi lengthwise in half and cut each half again lengthwise.) Encourage students to take a bite of kiwi with the skin and without the skin (bite off only the green flesh). Alternatively, give each student a half of a kiwi and spoon. Show students how to scoop out the kiwi with a spoon. (The kiwi must be soft enough for this to work well.) Encourage students to also take a bite of the kiwi with the skin.

Reflect

5. Voting Activity: *2 minutes*
This is a time for students to give their opinion on what they tried!

As students taste the kiwi, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

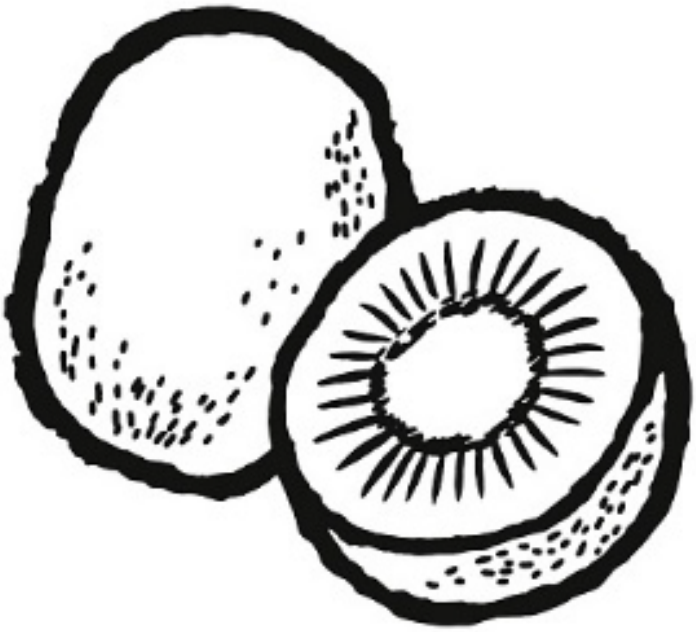
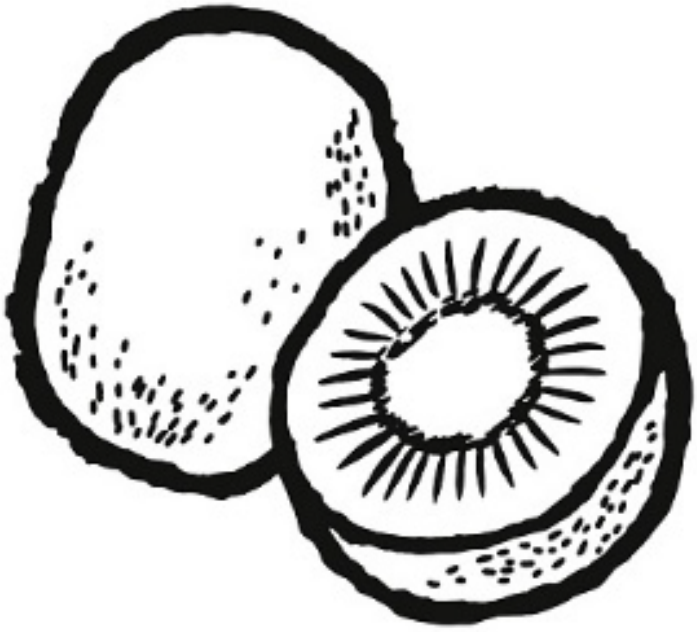
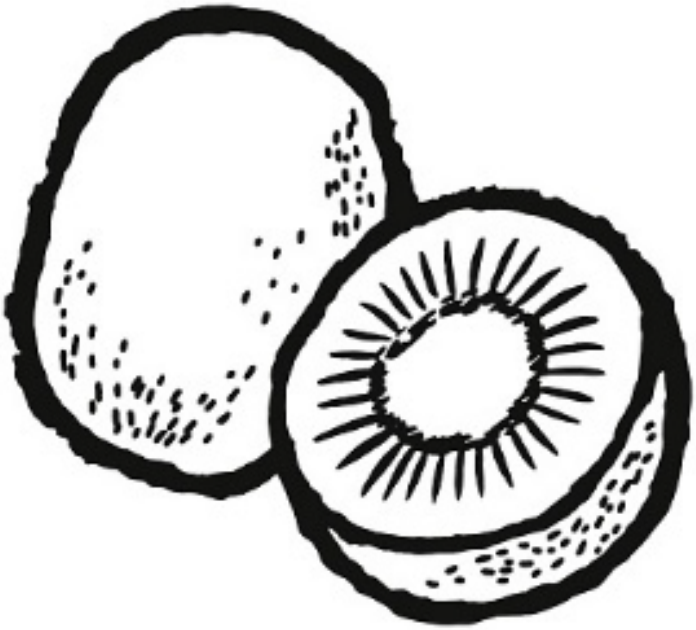
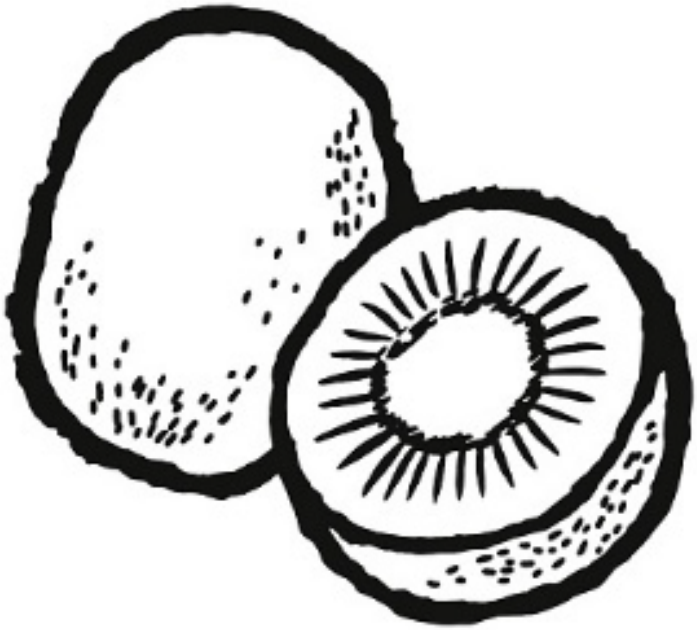
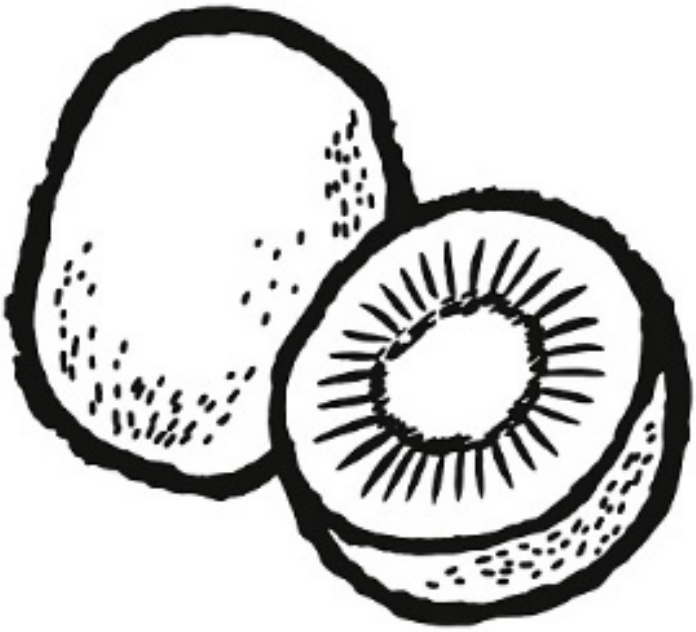
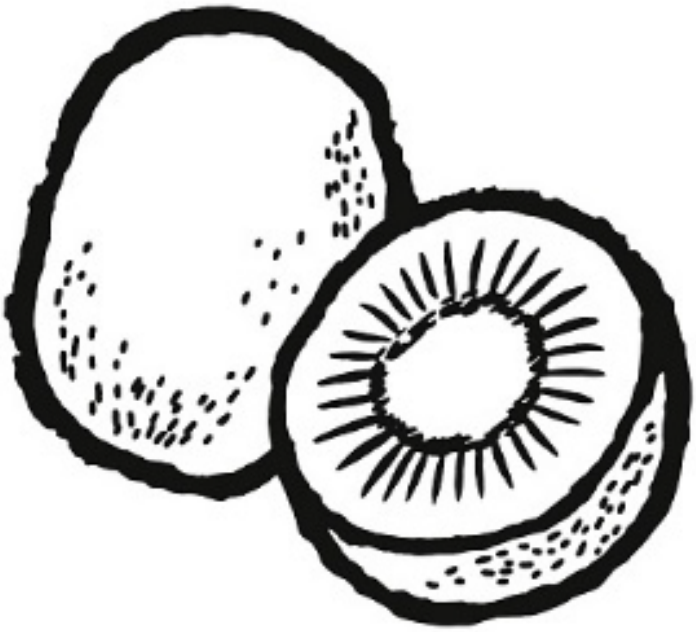
6. Reflection: *10 minutes*
Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Optional: Make a class kiwi vine. Print and cut out one kiwi picture for each student (kiwi coloring template attached). Students will color and sign their name on their kiwi. Attach each kiwi to a long length of green yarn using tape, and work with the teacher to post the class kiwi vine in the classroom.

<u>Reflection questions:</u>

- *What did you like or love about the kiwi?* Select a couple students to share. *Will someone share what you could do to make it better if you disliked it? (mix with other fruit, add to yogurt, put in a smoothie, etc.)* Select a couple of students to share.
- *Will someone share how the kiwi tasted with the skin compared to without the skin?*
- *What does kiwi look like? (green on the inside, brown on the outside)*
- *How does kiwi feel? (smooth and slippery on the inside, fuzzy/hairy on the outside)*
- *What do kiwis grow on?* Vines
- *What is in the middle of the kiwi?* Seeds
- *What are ways you can eat kiwi? (cut in half and scoop out fruit with a spoon, slice a kiwi, with the skin or without, cut up with other fruit, etc.)*
- *How do you know if kiwi is ready to eat? (it is a little soft when you press on it)*
- *Raise your hand if you're excited to go home and tell your grown-ups about tasting kiwi.* Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?* You might also ask additional questions like, *where could you buy kiwi?*

Leave newsletters and stickers with the teachers to pass out.

Additional Materials

Physical Activity

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Kiwi

- Kiwi is usually eaten raw. It can be eaten whole like an apple or cut into quarters like an orange. You can cut the kiwi in half and scoop out the flesh with a spoon. The skin can be eaten, or the kiwi can be peeled. Be sure to wash the kiwi first.
- Kiwi grows on vines on a trellis, much like how grapes are grown.
- Kiwi is a berry and is available year-round. It is usually sold individually. Select firm, unblemished fruit. The size does not affect the flavor.
- Ripe kiwi is plump and gives slightly to pressure. If it is too hard, it is not ready to eat yet. You can help ripen it faster by putting it in paper bag with an apple or banana. Kiwi will keep several days at room temperature and up to four weeks in the refrigerator.
- The serving size for school food service is two whole kiwi (2 whole kiwi = ½ cup serving).

Facts About Kiwi

- Kiwi originated in China over 700 years ago where it was called Yang Tao. In 1906, the seeds were sent to New Zealand and renamed Chinese Gooseberry. Later, the Chinese Gooseberry was renamed “kiwifruit” after New Zealand’s national bird the “kiwi.”
- Kiwi can be used as a natural meat tenderizer (meaning it helps make the meat more tender). Just rub a cut end of kiwi over the meat an let stand 10-15 minutes.
- California produces 98 percent of kiwi grown in the United States. Italy, New Zealand, Chile, France and Japan also grow kiwi.

Health Connection

- High in Vitamin C to fight off germs and heal cuts and wounds; good for our gums. Reinforce with defense shield (Cross arms in front of your chest).
- Good source of vitamin E. Kiwi provides more vitamin E than most fruits (fruits and vegetables are generally not good sources of vitamin E.) Vitamin E is good for your skin and eyes. (The Oregon video in the lesson mentions vitamin E.) Point to skin and eyes.
- Good source of fiber (especially when you eat the skin) to help with digestion and help you feel full. Reinforce by rubbing stomach.

References and Resources

https://spendsmart.extension.iastate.edu/produce-item/kiwi-fruit/
https://snaped.fns.usda.gov/seasonal-produce-guide/kiwifruit
https://foodhero.org/kiwi; Knife Skills – Kiwi & Oranges video (start at 1:11)
https://fruitsandveggies.org/fruits-and-veggies/kiwifruit/

This institution is an equal opportunity provider.
This material was funded by USDA’s Supplemental Nutrition Assistance Program – SNAP. October 2024

IOWA Health and Human Services

Chickpeas

GRADE K-1

Month: January
Time Required: 30 minutes
Alternative Tastings: Edamame, Black Beans, Black Eye Peas

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to recognize chickpeas, and other beans, as seeds.
- ❑ Students will be able to determine that seeds come in all different shapes, sizes and colors.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1. LS1.C: Plant survival needs

First grade - 1-LS1-1. LS1.A: Structure and function

Materials

- ❑ 5 different kinds of dried beans (ex: black beans, garbanzo beans, red beans, navy or Great Northern and pinto beans)
- ❑ 6 (one for each group) small food storage bags with mixed beans
- ❑ 6 egg carton halves (one for each group)
- ❑ Canned chickpeas for tasting, drained
- ❑ If cooking chickpeas in class, air fryer or skillet, plastic tote to transport electric skillet, hand towel, cleaning wipes, power strip, extension cord, oil (olive, canola, vegetable, etc.), 15 oz can chickpeas, salt, pepper or other spices

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ “Asking” Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: What seeds need

Preparation

- ❑ Mix dried beans in a bowl (black beans, garbanzo beans, red beans, navy or Great Northern and pinto beans) and fill 6 small food storage bags.
- ❑ If cooking beans, rinse the canned garbanzo beans and pat dry with a paper towel. Store in a container or food storage bag. The drier the bean, the crispier they’ll turn out and the faster they’ll cook. You may want to pat dry again immediately before cooking.

Recommended Books

“The Sandwich Swap” by Queen Rania Al Abdullah and Kelly DiPucchio; “A Seed in Need” by Sam Godwin; “One Bean” by Anne Rockwell; “Mr. Putter & Tabby Spill the Beans” by Cynthia Rylant

Engage

1. Introduction: *3 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the days lessons.

If cooking beans in class, immediately plug in the electric skillet or air fryer and preheat. Explain to students how you'll cook the garbanzo beans and how to stay safe while using heat sources.

Follow these cooking instructions:

- Air fryer: Preheat to 390 degrees. Once preheated, add your drained chickpeas (pat dry with a paper towel again if needed), 1 tablespoon oil, and seasoning. Set the timer to 10 minutes. Shake the basket once or twice throughout the lesson. After 10 minutes, check for crispiness.
- Electric skillet: Preheat skillet with 1-2 tablespoon oil over medium or medium-low heat (this depends on your electric skillet). Once hot, add chickpeas and seasoning and leave uncovered. Set a timer to 10 minutes. Stir occasionally. After 10 minutes, check for crispiness.

Cooking Tips:

- Feel free to delegate responsibilities with the teacher. Have them stir the beans, while you work with the class. Or vice versa.
- Email the teacher ahead of time to let them know you plan on using a heat source and will need a table close to an outlet, if possible.
- If you notice students getting distracted by the noise, smells, sights of cooking, use that as a teaching moment. Pause and ask students to smell the air together. Or listen very quietly for any sizzling noises. These are good interruptions!

2. Engage Activity: *7 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

At the carpet or with students seated at their desks say, *I have a joke for you.*
You: *Knock Knock.*
Class: *Who's there?*
You: *Bean.*
Class: *Bean who?*
You: *Bean a while since I've seen you!*

That joke makes me laugh because it ***has been*** *a while since I've seen you, but also because it's a clue to what I brought today for us to taste. Can you guess what it is?* (beans!) *That's right,* ***beans****.*

Engage (cont'd)

I want to know what kind of beans you've eaten before. Educators, give examples of different types of beans if students appear stumped. Have students respond in one of the following ways to share the kind of beans they have eaten: 1) pair up with a buddy and share with one another (tell students to find an elbow-buddy; students stick out their elbows and partner with another student that they touch elbows with close-by), 2) in unison when you say the word "bean," or 3) use pick-a-stick or another method to call on students to respond.

I heard a lot of different beans that you have tried before. Name some of the beans students shared. *Today we're going to try a kind of bean called chickpeas, also called garbanzo beans. But first let's get our bodies moving like we always do in Pick a Better Snack with a bean game.*

Physical Activity: Bean Movement Game
For each "bean" I call out, I want you to act out the name. Hold up a bean card (attached in this lesson) as a helpful visual. Consider choosing only three of four "beans" and repeating, if needed. Mix in "frozen bean" so all students freeze. Gradually call out the beans more rapidly. After a few minutes, students still moving on "frozen bean" sit down until all students are seated (or educator chooses to stop).

- Runner bean – run in place
- Chili bean – pretend to shiver and cross arms around chest and rub arms as really cold
- Frozen bean – freeze (stop)
- Baked bean – lie down and bake in the sun
- Jumping bean – jump up and down
- Jelly bean – go all wobbly

We had fun moving our bodies with silly bean names. Now let's take a look at some real beans.

Explore

3. Experiential Learning: *10 minutes*
This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit in groups of not more than four students at their desks, at the carpet or some place around the room (opportunity for 3 deep breaths).

Did you know that all beans are seeds? Seeds are the part of the plant that can grow into a new plant. Seeds need water and warmth to start to grow, and eventually, they need dirt and sun to grow into a full plant. And just like you all, seeds can have lots of different and similar characteristics, like size, shape or color.

I mixed 5 different kinds of beans. I want you to work in your groups to sort the beans in different ways. Give each group a small bag of mixed beans prepared in advance (black beans, garbanzo beans, red beans, navy or Great Northern and pinto beans).

Explore (cont'd)

Display an image (attached to lesson) that shows each bean and its name. Review the beans with the class.

Seed Sorting Activity

Pass out assorted bags of beans and halved egg cartons to small groups. Have groups inspect the beans and sort into egg cups by color, size, shape, solid or patterned, etc. Encourage students to discuss their observations within their groups. At the end of the activity, select 2-3 students to share their observations. *Did anyone see any beans that looked familiar? What beans were new to you? Did you find the chickpeas? What do they look like? How many chickpeas did your group have?*

If you are cooking in class, check in on the chickpeas while students are sorting beans. While students continue working, start prepping samples to be passed out once the activity is done.

4. Tasting Activity: *4 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Before you pass out any samples, be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). As students receive their samples, ask them to use their senses while they wait.

Give each student 2 or so canned chickpeas or the chickpeas cooked in class. Provide plain chickpeas even if tasting chickpeas in hummus, etc.

Reflect

5. Voting Activity: *3 minutes*

This is a time for students to give their opinion on what they tried!

As students taste the chickpeas, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *3 minutes*

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Choral Response:

A choral response is where you pose a question to the class that has a clear answer and can be answered in a few words or less and the students answer all at once. It's nice to have a visual cue to teach the kids.

Reflect

For example, you could say, *I'm going to raise my arms and ask a question to the class. When I lower my arms that means it's the class' turn to answer. Let's practice…*

- *What month is it?* (January)
- *What food did we try today?* (chickpeas or garbanzo beans)
- *What do chickpeas look like?*
- *What part of the plant are chickpeas?* (seeds)
- *What do seeds need to grow?* (Warmth and water; sun, water, dirt)
- *How can you eat chickpeas? (it's the main ingredient in hummus and falafel; add to soup or salads; seasoned and roasted; etc.)*

Asking Discussion:

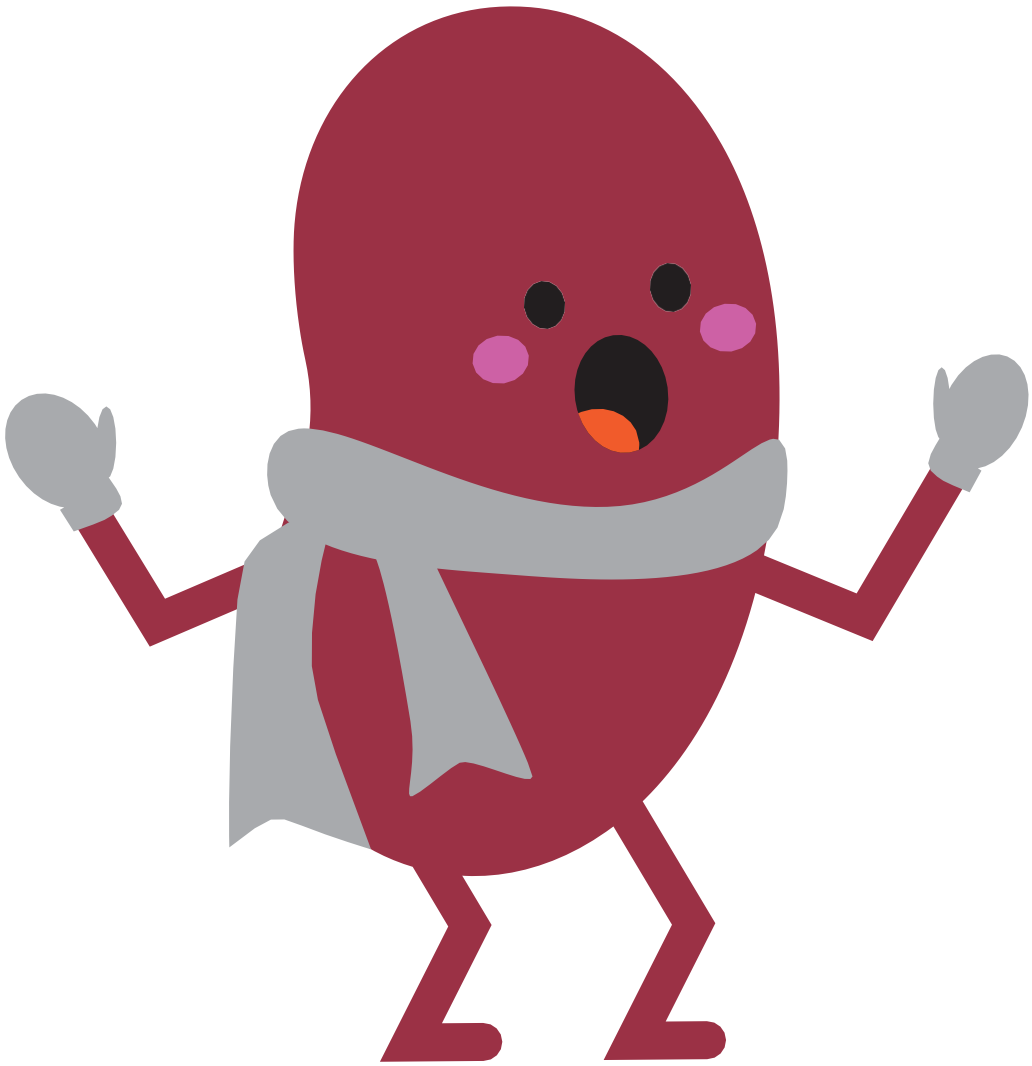
Raise your hand if you're excited to go home and tell your family about tasting chickpeas.

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy garbanzo beans?*

Leave newsletters and stickers with the teachers to pass out.

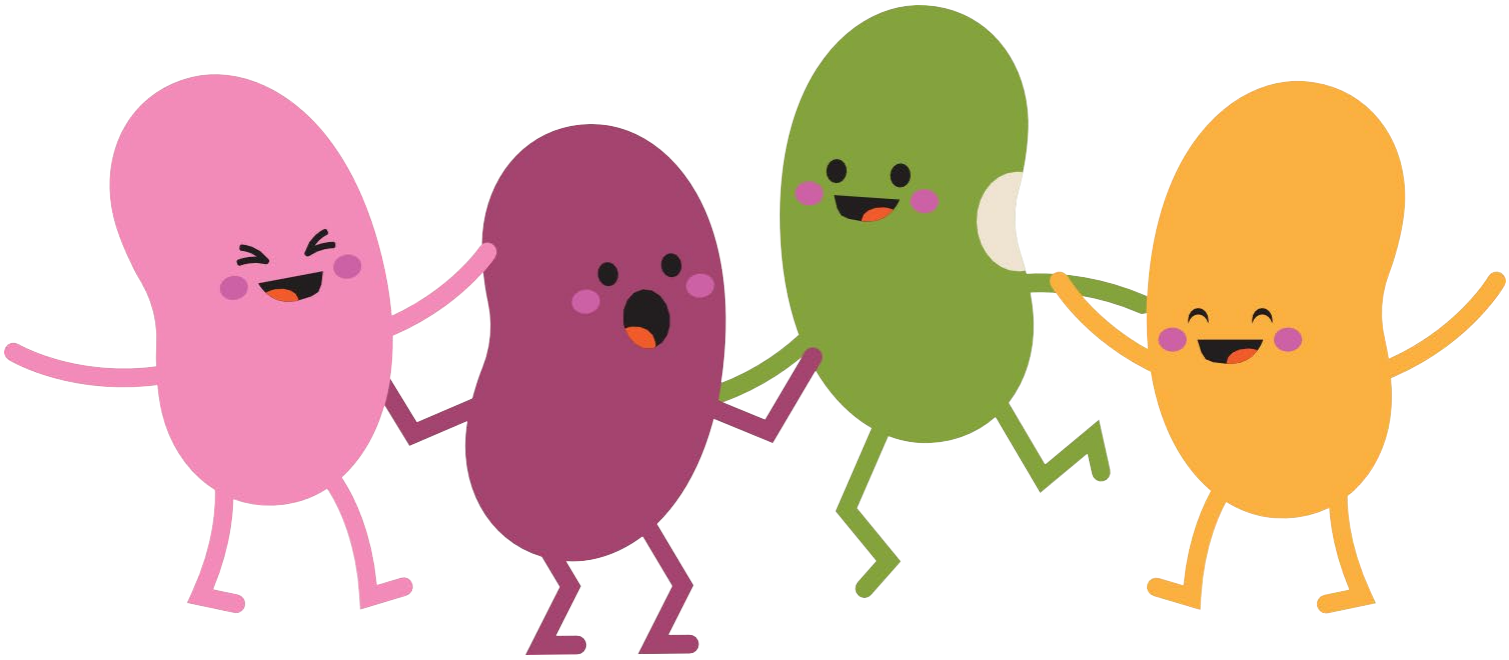
Baked Bean

Chili Bean

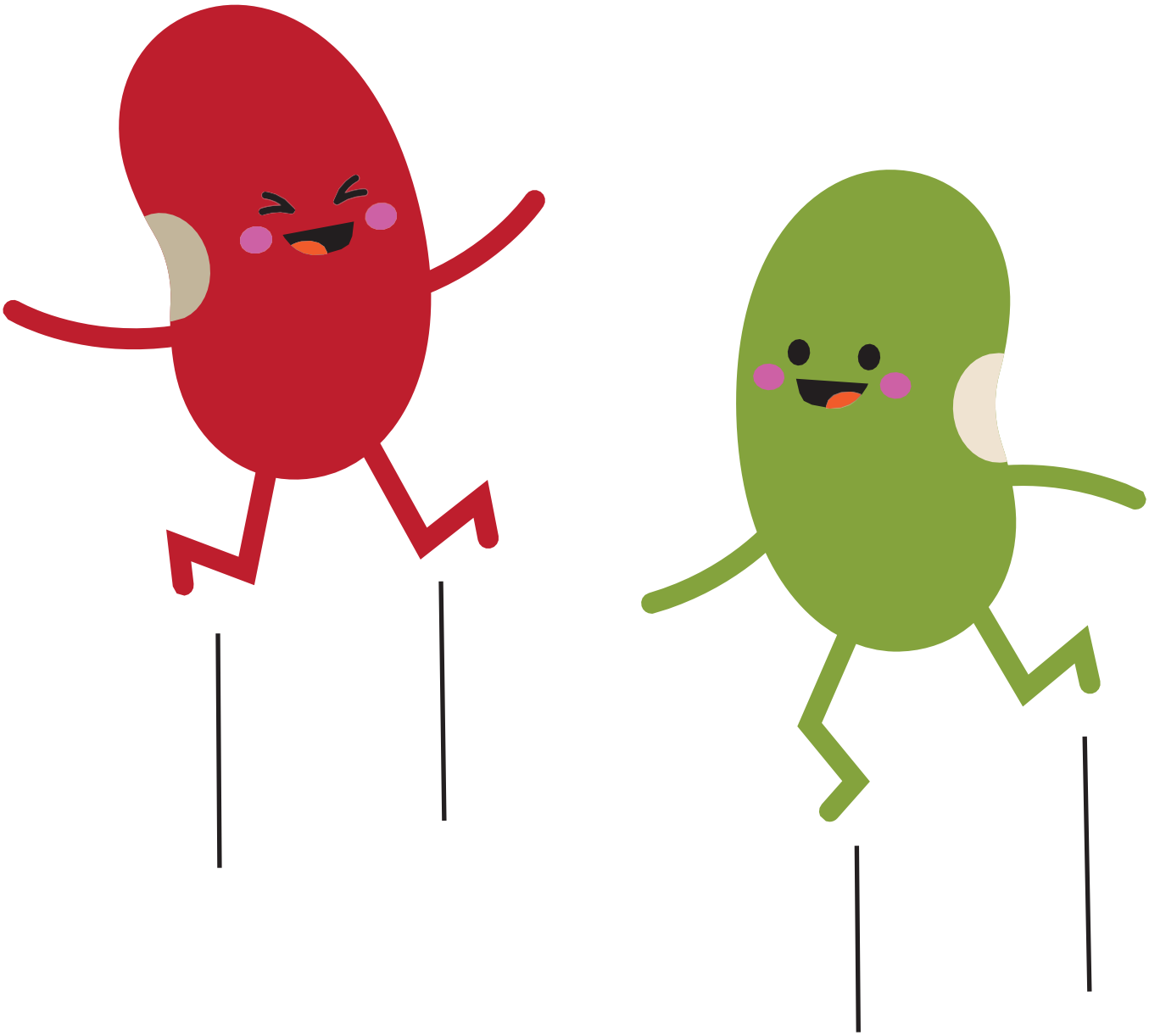


Frozen Bean

Jelly Beans



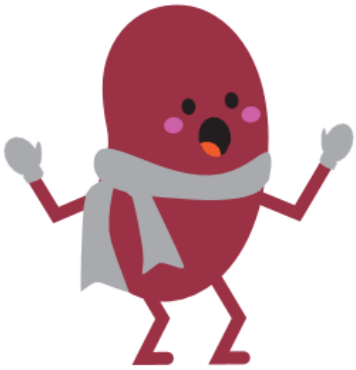
Jumping Beans



Runner Bean

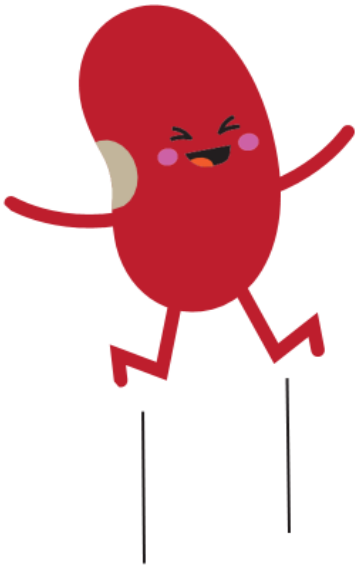
Baked Bean

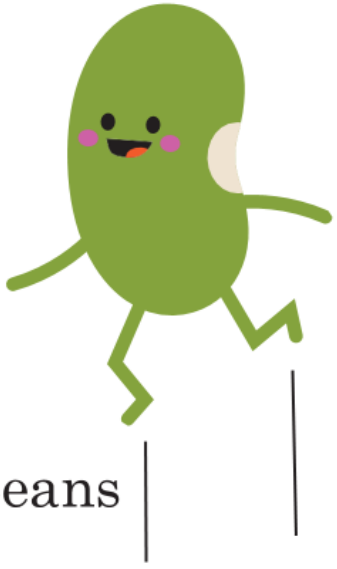
Runner Bean



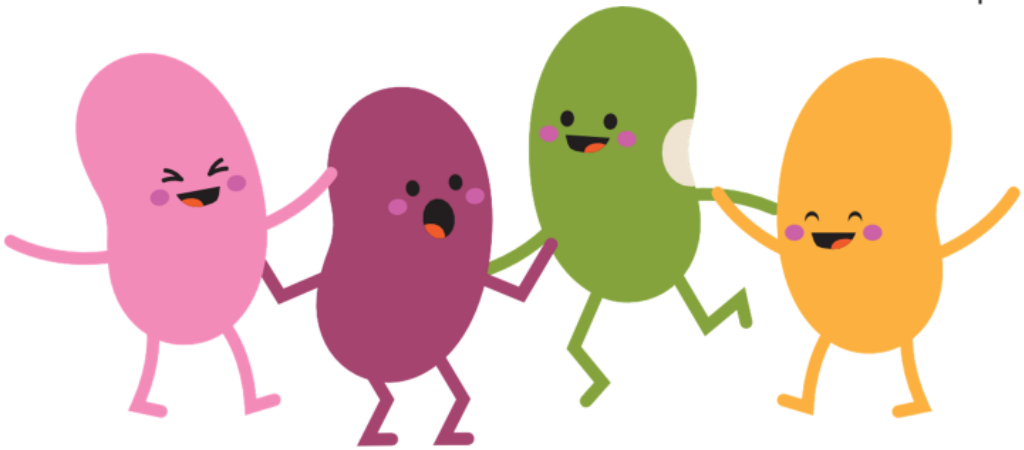
Chili Bean

Frozen Bean





Jumping Beans



Jelly Beans

Chickpeas

Red Beans

Navy Beans

Pinto Beans

Black Beans

Additional Materials

Physical Activity

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Chickpeas

- Available in dried, canned and frozen forms.
- Beans and peas contain plant protein, iron and zinc, which are similar to nutrients in meat, poultry and fish, so they can be counted in the protein group.
- Beans and peas contain dietary fiber, folate and potassium, which are common nutrients in the vegetable group. Chickpeas can count as a protein serving or a vegetable serving.
- One-half cup of cooked beans provides about 8 grams of protein.
- Beans and peas are mature forms of legumes and include kidney beans, pinto beans, black beans, black-eyed peas, chickpeas/garbanzo beans, split peas and lentils.
- Chickpeas grow in pods on small bushes; one seed pod contains 1-3 chickpeas.

Facts About Chickpeas

- One of the world's oldest cultivated crops. Cultivation goes back 7,000 years in some parts of the world.
- Chickpea and garbanzo beans are the same thing and are a member of the pea family.
- The chickpea has a small beak that looks like a chick's beak, giving it the name chickpea.
- The kidney bean is shaped like a kidney.
- Some heirloom varieties of beans are: Eyes of Goat, Tongues of Fire and Mortgage Lifters. Heirloom vegetables are grown from seeds that have been passed down through generations.

Health Connection

- Chickpeas are a good source of protein. Reinforce by flexing muscles.
- They are also high in fiber. Rub stomach to reinforce they help food move through the digestive tract and help keep us full longer.

References and Resources

https://foodhero.org/beans
https://spendsmart.extension.iastate.edu/pantry-picks/beans/
https://spendsmart.extension.iastate.edu/recipe/after-school-hummus/
https://spendsmart.extension.iastate.edu/recipe/peanut-butter-balls/ (substitute chickpeas for great northern beans and Sunbutter for peanut butter, if needed).
https://www.eatright.org/food/planning-and-prep/recipes/pizza-hummus-recipe
https://yardandgarden.extension.iastate.edu/how-to/all-about-beans
https://www.agmrc.org/commodities-products/vegetables/chickpeas

This institution is an equal opportunity provider.
This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. November 2024

IOWA Health and Human Services

Pineapple

GRADE K-1

Month: February
Time Required: 30 minutes
Alternative Tastings: Banana

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will conclude that pineapples grow far away from Iowa.
- ❑ Students will be able to explain that different fruits grow near and far from Iowa.

Materials

- ❑ Paper plates
- ❑ Forks or toothpicks
- ❑ Knife
- ❑ Cutting board
- ❑ Whole pineapple
- ❑ ½ pineapple per 25 students
- ❑ Tajin seasoning (optional)
- ❑ Fruit images (see below) & tape
- ❑ Food mile index (see below)
- ❑ Recipe card template (see below)
- ❑ Pineapple corer (if demonstrating)

Optional
(if making fruit salad recipe)

- ❑ 1½ apples per 25 students
- ❑ 4 bananas per 25 students

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1
LS1.C: Plant survival needs

First grade - 1-LS1-1
LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletter, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Plant survival needs (K) & plant parts (1st)

Preparation

- ❑ Cut the pineapple into bite size pieces.
- ❑ Fruit Salad ingredients: Wash the apples. You could cut apples and bananas in advance, but there will likely be browning.
- ❑ Communicate with classroom teacher to have Google Earth map prepared to be pulled up on screen.

Recommended Books

"Before We Eat: From Farm to Table" by Pat Brisson
"Pineapple Pete's Remarkable Feat" by Josephine Baskin Minow
"How Did That Get in My Lunchbox?" by Chris Butterworth
"I Eat Fruit" by Hannah Tofts
"Exotic Fruit" by Huy Voun Lee
"What's The Fuss" by Jude Navas
"Pineapples Don't Grow on Trees!" by Jeremy and Josie Schroeder

Engage

1. Introduction: 2 minutes

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

Show students three large, printed images of fruit (included in lesson) and have them say the fruit names with you (choral response): apple, pineapple, banana. Place the pictures in a line across the classroom: the apple toward the front of the room, the pineapple in the middle of the room, and the banana at the back of the room. You may need tape to hang on classroom wall, so they are high enough for students to see.

2. Engage Activity: 8 minutes

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

With students seated at their desks or carpet, say*, I want you to think quietly to yourself and decide, of these three fruits, which one is your favorite to have as a snack? Apples, pineapples, or bananas? Think in your head and when I say "go," you will quietly walk to the picture of your favorite fruit.* Give students 5-10 seconds to think; say *"go."* Observe and support students to move to their fruit of choice.

Introduce the concept of food miles. To do so, have the Google Earth map (link below) pulled up on screen and progress through the slides as you explain foods grown FAR, FARTHER, and FARTHEST away. (Students can move to the front of the room to look at the visuals together.)

Explain, *The United States gets most of its pineapples from Costa Rica. That means that when you eat a pineapple it's traveled thousands of miles to get to you. In fact, all of the fruits we have available this time of year were grown outside of Iowa, like pineapple.*

- (Slide 1, Iowa – where we live) *Most fruits we eat cannot survive outdoors in Iowa winter weather. What makes survival hard in our winter weather?* (the very cold temperatures) Standing at the front of the room (closest to the apple group), explain, *Apples grow really well in Iowa during the summer and fall, but it's winter, so we have to get apples from FAR away states like Washington.*
- (Slide 2&3, Washington) Write the word "far" on the board. Show the slides so they can see distance from Iowa to Washington. (See video in Reference section for information about how Washington apples are stored in a controlled environment after harvest, so they stay fresh year-round.)
- (Slide 4&5, Costa Rica) *Pineapples grow even FARTHER away, in tropical places like Costa Rica.* Write the word "farther" on the board. Show the slides so they can see how much farther Costa Rica is from Iowa.
- (Slides 6&7, Peru) *And bananas grow the FARTHEST away in tropical places like Peru.* Write the word "farthest" on the board. Show the slides so they see how Peru is the farthest away from Iowa.
- Have students repeat these words. *Let's say these words together: far, father, farthest. Apples grow far away, pineapples grow farther away, bananas grow farthest away.*

Visual Resource Links: A visual will help the students understand the lesson objective. You are welcome to use other visual resources, but the Google Earth slides link is provided here. Google Earth map: 7 slides progress to demonstrate far (apples in Washington), farther (pineapples in Costa Rica), & farthest (bananas in Peru). Google Map of locations: shows lines and distances between Washington, Costa Rica, and Peru.

Engage (cont'd)

Physical Activity

With students gathered together in the front of the room, say, *We're going to play a movement game while listening to a song about the meaning of the words "near" and "far." When you hear the word "near," you should squat down onto the ground (demonstrate). When you hear the word "far," you should jump up into the air (demonstrate). Ready?* On smart screen/projector, play the Sesame Street - "Near and Far" Song.

Explore

3. Experiential Learning: 8 minutes

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Students can remain at front of room seated together for the Explore activity.

While holding up a whole pineapple, say, *For our tasting today, we're going to try our "farther fruit" from our activity: pineapple. Pineapples grow in the center of a leafy plant in tropical places that are hot and have lots of rain. We can eat the bright yellow inside of the pineapple after we chop off the crown and the skin* (demonstrate if preparing tasting from fresh, whole pineapple or explain that this has already been done).

Let's watch a video to learn more about how pineapple is grown. (The shorter video is recommended for this age group. How do Pineapples Grow? – YouTube) After the video, ask the students to share a few things they learned about how and where pineapples are grown.

Depending on your time, you could add in additional activity from options below:

- Option 1: You can select a book from recommendation list and read to the class.
- Option 2: Make fruit salad in front of class to use for tasting. (As facilitator, you can prepare the ingredients in front of class. Place a small portion on each plate so they can try the three fruits together.)

Directions for Option 2: Make the fruit salad: Farther, Farthest Fruit Salad

Today we are going to prepare our own fruit salad using the fruits from our earlier activity: pineapple, apple, and banana. This is called a Far, Farther, Farthest Fruit Salad, to describe where our fruit came from. Using choral response: *the apple grows **far**, the pineapple grows **farther**, and the banana grows **farthest** away from Iowa.* This is also an excellent time to remind students that *apples can grow near, right here in Iowa, but not during the cold winter months. In Iowa, they are typically ripe and harvested in the fall.*

Now that we have learned more about how pineapples grow, let's try it. (Pineapple should be offered plain whether it is fresh, canned, or thawed from frozen. You can demonstrate how to use the corer or have it pre-cut. If you choose to make the fruit salad recipe, encourage them to try the pineapple first by itself before trying with other fruits.)

Have students sit at their desks (opportunity for 3 deep breaths) before you offer the tasting.

Explore (cont'd)

4. Tasting Activity: 2 minutes

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Explain to students that we're going to taste the pineapple first. Be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). Ask students to use their senses while they wait until the entire class is ready to taste the pineapple together.

Reflect

5. Voting Activity: 2 minutes

This is a time for students to give their opinion on what they tried!

As students taste the pineapple or fruit salad, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: 8 minutes

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

If you took less time in the EXPLORE section, you may have more time for the REFLECT activity. This optional activity can help add to the reflection section.

Optional Reflection Activity: Coloring Pages

As students finish eating, pass out printed half-sheet coloring pages (template below). Instruct students to draw and color the far, farther, farthest fruits that they just tasted. Review names of the fruits, plant structures such as stems and peel, and which one grows far, farther, and farthest from Iowa.

Asking Discussion:

Raise your hand if you're excited to go home and tell your family about tasting pineapple.

- Ask a student with a raised hand*: if you wanted to try this at home, how might you ask your grown- ups?*
- *Which fruit did we discuss today grows far from Iowa?* (Apple) *Which grows farther?* (Pineapple) *Which one grows the farthest?* (Banana)
- You might also ask additional questions like, *what is something you remember about pineapple?*
  Which parts of the pineapple do we cut off before eating? (crown, skin, core), *where could you buy a pineapple?*

Leave newsletters and stickers with the teacher to distribute.

FAR Fruit	**FARTHER** Fruit	**FARTHEST** Fruit
Apple	Pineapple	Banana
Draw a picture!	*Draw a picture!*	*Draw a picture!*

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December 2024

IOWA Health and Human Services

Pick a Better Snack Lesson

FAR Fruit	**FARTHER** Fruit	**FARTHEST** Fruit
Apple	Pineapple	Banana
Draw a picture!	*Draw a picture!*	*Draw a picture!*

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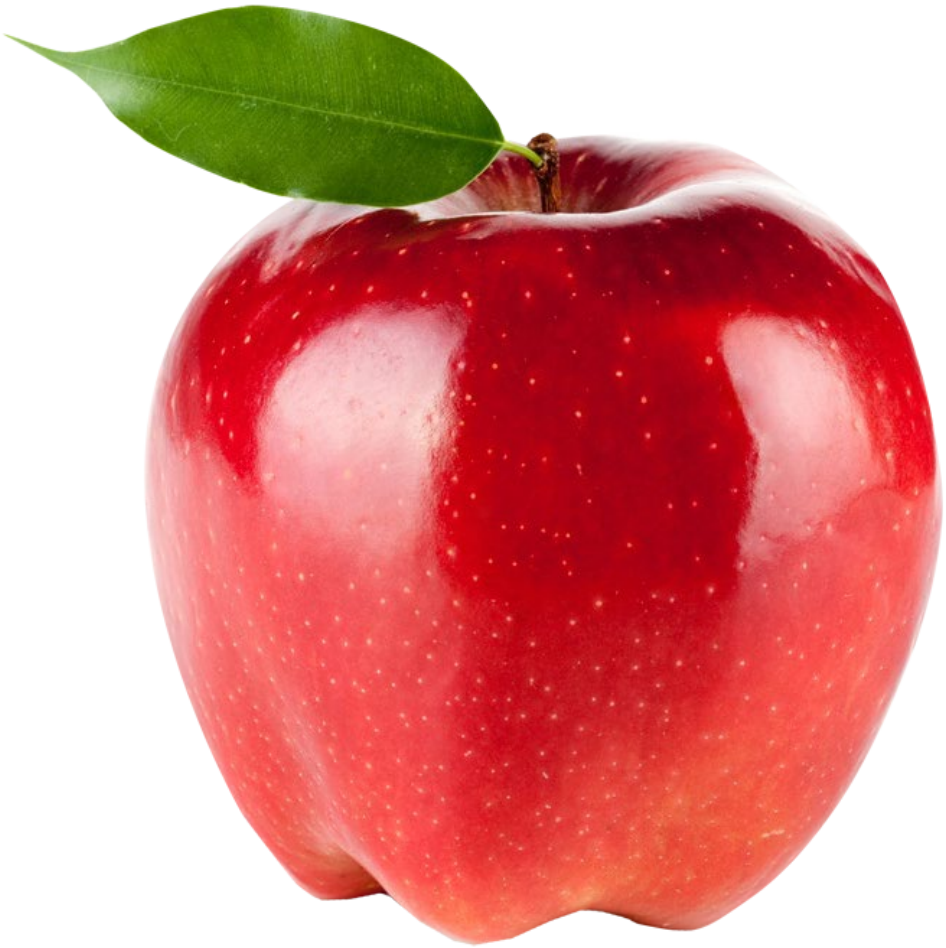
December 2024

IOWA Health and Human Services

APPLE



BANANA

PINEAPPLE

Additional Materials

Physical Activity

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Pineapple

- Pineapple does not grow in Iowa. It requires a tropical or subtropical environment. It can grow year-round in Hawaii, Southern California and Southern Florida.
- Purchase pineapples that are plump and fresh-looking with a fresh green crown top. Avoid soft or dark spots with dry-looking leaves. A ripe pineapple is usually mostly yellow, especially at the base. The inside can be nearly white to yellow.
- The leafy crown, rind and core are usually cut off before eating.
- Pineapples do not ripen after they have been picked.
- Pineapple is sold fresh, canned, dried, as juice and frozen.

Facts About Pineapple

- Pineapple originated in Brazil and Paraguay in South America.
- Christopher Columbus may have carried it back to Spain.
- The name pineapple in English (or piña in Spanish) comes from the similarity of the fruit to a pinecone.
- The pineapple crown is used to plant a new plant.
- It takes 18-20 months to get the first fruit. The next crop takes another 15 months.
- The pineapple is a symbol of hospitality.

Health Connection

- Pineapple is high in Vitamin C, which helps us fight off germs, heal cuts and wounds and keep our gums healthy. Reinforce with defense shield (Cross arms in front of chest).
- Pineapple is a good source of fiber, for healthy digestion and to make you feel full. Reinforce by rubbing stomach.

References and Resources

https://snaped.fns.usda.gov/seasonal-produce-guide/pineapples
https://fruitsandveggies.org/fruits-and-veggies/pineapple/
How to Grow A Pineapple for Kids – YouTube (4:40 in length) – Explains how to plant and harvest pineapples.
How do Pineapples Grow? – YouTube (1:40 in length) – Explains how pineapples grow.
https://www.youtube.com/watch?v=9PZlQVdtpn8 – Explains how Washington apples are harvested in the fall, but they stored in a controlled environment so that they can be shipped to stores year-round.

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IOWA Health and Human Services

Sugar Snap Peas

GRADE K-1

Month: March
Time Required: 30 minutes
Alternative Tastings: Green Peas, Snow Peas, Okra

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to recognize peas as seeds.
- ❑ Students will be able to identify parts of a pea plant, including pods.

Materials

- ❑ Fresh sugar snap peas, washed (2 per student)
- ❑ Napkins or small paper plates
- ❑ Flashlight and spray bottle with water (for the physical activity)
- ❑ Classroom whiteboard
- ❑ Images of snap peas (attached)
- ❑ Optional: printed recipe and worksheet (attached)

Optional *(if cooking sugar snap peas)*

- ❑ 2 tbsp sesame or olive oil,
- ❑ 1 lb sugar snap peas, washed

Optional (cont'd)

- ❑ 1 tsp minced garlic (in a jar)
- ❑ 1 tbsp reduced-sodium soy sauce or tamari (a gluten-free alternative, but check label)
- ❑ 1 tsp chili oil (optional)
- ❑ Sesame seeds (optional)
- ❑ Platter or bowl, serving utensil
- ❑ Measuring spoons
- ❑ Cooler and ice pack
- ❑ Water bottle with water (for cleaning)
- ❑ Hand towel
- ❑ Electric skillet
- ❑ Power strip and extension cord

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1 LS1.C: Plant survival needs

First grade - 1-LS1-1 LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Plant survival needs (K) & observing plant structures (1st)

Preparation

- ❑ Wash the peas.
- ❑ Optional: Print recipe and worksheet for each student.

Recommended Books

"Eat Your Peas, Louise!" by Pegreen Snow
"Little Pea" by Amy Krouse Rosenthal
"Pick, Pull, Snap!: Where Once a Flower Bloomed" by Lola M Schaefer

Engage

1. Introduction: *4 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

If cooking sugar snap peas in class, as soon as you arrive in the classroom, plug in the electric skillet and preheat. Explain to students how you'll cook the sugar snap peas and how to stay safe while using heat sources. Use the following instructions (the recipe is also attached):

Follow these cooking instructions:

1. Heat 2 tablespoons sesame oil in a skillet over medium heat or medium-low heat (this depends on how hot your electric skillet gets).
2. Add 1 pound sugar snap peas to hot oil. Cook for 5-7 minutes, uncovered.
3. Add 1 teaspoon minced garlic and 1 tablespoon reduced-sodium soy sauce or tamari, stir. Cook for another 1-2 minutes. Be careful not to burn the sauce; tamari and soy sauce burn quickly.
4. Remove from heat and toss in 1 teaspoon chili oil. Sprinkle with sesame seeds. Enjoy!

Cooking Tips:

- Feel free to delegate responsibilities with the teacher. Have them stir the peas, while you work with the class. Or vice versa.
- Email the teacher ahead of time to let them know you plan on using a heat source and will need a table close to an outlet, if possible.
- If you notice students getting distracted by the noise, smells, sights of cooking, use that as a teaching moment. Pause and ask students to smell the air together. Or listen very quietly for any sizzling noises. These are good interruptions!

2. Engage Activity: *8 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Ask students, *what did we taste in Pick a Better Snack in January?* Call on students to share what they remember. *That's right, we tasted chickpeas. And what part of the plant are chickpeas?* Pick different students to share. *Yes, chickpeas are seeds. Today, I brought another kind of seed that we eat. Can you guess what it is? It's a vegetable. It's green. It's small and round. It grows in a pod on the plant. It starts with a "p.".* Make the "p" sound. Allow students to guess. *You got it. Peas!*

There are different kinds of peas, like green peas (also called garden peas), snow peas and sugar snap peas. Today we're trying sugar snap peas. Let's all say that name together (choral response): *sugar snap peas. Peas are seeds, just like the chickpeas we tried in January are seeds. We've learned that seeds need two things to sprout and grow; they need warmth and water. What do seeds need?* (choral response): *warmth and water. Great, now let's act out how seeds sprout with our bodies.*

Engage (cont'd)

Physical Activity: Story in Motion - Story of A (Pea!) Seed

Suggest checking with the teacher before the lesson to ask about student sensory concerns due to water mist and flashlight.

Show me what a tiny pea seed looks like (students crouch down).

- **Water***: I'm going to come around and give water to these baby seeds* (mist water bottle above students' heads; alternatively, wiggle your fingers over the students to mimic rain.)
- **Sunshine:** *We also need warmth from sunshine to grow. I'm going to come around and shine some sun on you* (shine flashlight on their arms or toes, sweeping over the entire class. Or, put your arms together to make a circle like the sun and move around the students).
- **Sprout:** *Now, wiggle like seeds getting ready to burst! Start wiggling slow, and a little faster and faster! When I clap my hands, let's sprout out of our seeds, just a little bit. Ready, grow* (clap!) (students stand up halfway)
- **Seedling:** *I'm going to give you a little more water and a little more sun* (repeat water and sun). *When I clap my hands, you are going to grow into a tiny seedling; you'll be halfway to a full-grown plant. Ready, grow* (clap!) (students stand up fully)
- **Plant:** *You are very thirsty plants. Let me give you some more water!* (repeat water) *And some more sun!* (repeat sun shinning) *This last time when I clap my hands you are going to grow into a full-sized plant. Ready?* (clap!) (students put arms up high or into the star yoga pose)
- Repeat the sequence faster (1-2 more times)

Transition: *Now when I clap my hands again, we are no longer going to be pea plants. We are going to be students back in our classroom and return to our seats* (clap).

Explore

3. Experiential Learning: 9 minutes

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Have students sit at their desks (opportunity for 3 deep breaths).

Today we're trying sugar snap peas. Sugar snap peas grow on plants. Show images of sugar snap peas (included in lesson). *The sugar snap peas grow inside a pod.* Point to the pods in the photos. *The pod is a special part of the snap pea plant that we can eat. The pod protects the seeds. The seeds, or the peas, are inside the pod. We eat the pod with the peas inside.*

When we ate chickpeas in January, did we eat the pod or just the seeds (beans)? Consider having students wave their hands above their head if they think we ate the pod or wave their hands in front of their body if they think we didn't eat the pod. *When we ate chickpeas, we only ate the seed (bean). We didn't eat the pod. In fact, we only looked at the beans* (recall the bean sorting activity and photos*). We didn't see how chickpeas grow in small pods, but they do!*

Explore (cont'd)

Optional – Draw and Label:
Let's draw a picture of a pea pod. Have students pull out a piece of paper, small white board or pass out the worksheets included in the lesson (ask the teacher or student helpers to assist). Draw a pea pod on the white board in the classroom while students draw at their desks. Describe the shapes as you draw it. *Let's label it together.* Label "pod" as a class, spelling the word together: p-o-d. Say the word together: *pod*. Next label "peas", spelling the word together: p-e-a-s. Say the word together: *peas*. *The peas are the seeds. Not all pods have the same number of peas inside. How many peas did you draw in your pod?*

Snap Pea Dissection Instructions:
Have students wash their hands or use hand sanitizer before dissecting the pea so that they are ready for the tasting. Give each student two sugar snap peas. Tell students to leave one on their napkin or plate for later and to pick up one pea pod. W*e're going to explore and dissect, or open, a sugar snap pea before we taste it. We will use our senses to explore the snap pea as we dissect it; we will look at it, touch it, smell it, and listen to it - but don't eat it yet.* Have students observe the snap pea. Ask, *what do you notice about the snap pea? How does it feel? What does it smell like?*

Many little peas grow inside one pod. We're going to guess how many peas are inside this pod before we open it up and look inside. Think in your head and then hold up your fingers to show me your guess (verbalize students' guesses as they show the class).

Let's find out if we guessed right. We are going to use our fingers to carefully pull the pod apart to observe how many peas are on the inside. Demonstrate how to break the snap pea in half and pull apart the pod. Tell students to listen as they break open the pod. *How many peas do you see? Did you guess right?* Listen to students' reactions as they dissect their snap pea. Share what you hear.

Cooking tips: If you are cooking sugar snap peas for the tasting, check in on the peas while students are dissecting. Start prepping samples to be passed out once the activity is done. Have another lesson and don't have time to wash the skillet? Simply squirt water into the hot skillet to cool it down, then wipe it clean with a rag. Do not wait more than 4 hours before washing with soap.

4. Tasting Activity: *4 minutes*
The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Tell students to pick up the second sugar snap pea. Taste the fresh sugar snap pea together. Encourage students to listen for a sound when they take a bite. Students may also eat the dissected pea. You could add a dip, such as hummus (connect back to chickpea lesson in January), or try Savory Yogurt Dip or a similar dip. Another option: Taste the sugar snap pea stir-fry prepared in class. In this case, you could give students only one fresh sugar snap pea to dissect and taste. Students can compare the fresh snap pea to the cooked snap pea. Vote twice if students taste both a fresh and cooked snap pea.

Reflect

5. Voting Activity: 2 minutes

This is a time for students to give their opinion on what they tried!

As students taste the sugar snap peas, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: 3 minutes

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion".

Choral Response:

I'm going ask a question and you're going to quietly think to yourself. When I say the word, "peas," you can say your answer aloud. Let's practice…

- *What month is it?* (March)
- *What food did we try today?* (Sugar Snap Peas)
- *What are two things plants need to grow?* (Water and sunshine)
- *What do peas grow in?* (Pods)
- *What part of the plant are peas?* (Seeds)
- *Can we eat the pod of the sugar snap pea?* (Yes, unlike with green peas where we only eat the peas. Or chickpeas, where we only ate the bean.)
- *How can you eat sugar snap peas?* (Plain, fresh; with a dip; cooked in a stir-fry, etc.)
- *Snap peas grow well in Iowa. Have you ever eaten a sugar snap pea from the garden?*
- *What are other peas you eat?* (green peas, snow peas)

Asking Discussion:

Raise your hand if you're excited to go home and tell your family about tasting sugar snap peas.

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy sugar snap peas?*

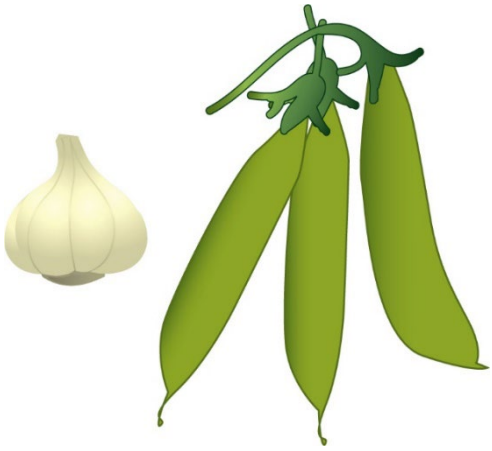
Optional, share printed copies of Sugar Snap Pea Stir Fry recipe for students to take home.

Leave newsletters and stickers with the teacher to pass out.

Sugar snap pea plant – the pods

Sugar snap pea plant growing on a trellis

Sugar Snap Pea Stir Fry



Ingredients:
2 tablespoons sesame oil (vegetable or olive oil will work too)
1 pound sugar snap peas
1 teaspoon minced garlic
1 tablespoon reduced-sodium soy sauce (or tamari – check for gluten free)
1 teaspoon chili oil (optional)
Sesame seeds (optional)

Directions:
1. Heat sesame oil in a skillet over medium heat.
2. Add sugar snap peas to hot oil. Cook for 5-7 minutes, uncovered.
3. Add garlic and soy sauce or tamari, stir. Cook for another 1-2 minutes. Be careful not to burn the sauce; tamari and soy sauce burn quickly.
4. Remove from heat and toss in chili oil. Sprinkle with sesame seeds. Enjoy!

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IOWA Health and Human Services

Pick a **Better Snack** Lesson

Sugar Snap Pea Stir Fry

Ingredients:
2 tablespoons sesame oil (vegetable or olive oil will work too)
1 pound sugar snap peas
1 teaspoon minced garlic
1 tablespoon reduced-sodium soy sauce (or tamari – check for gluten free)
1 teaspoon chili oil (optional)
Sesame seeds (optional)

Directions:
1. Heat sesame oil in a skillet over medium heat.
2. Add sugar snap peas to hot oil. Cook for 5-7 minutes, uncovered.
3. Add garlic and soy sauce or tamari, stir. Cook for another 1-2 minutes. Be careful not to burn the sauce; tamari and soy sauce burn quickly.
4. Remove from heat and toss in chili oil. Sprinkle with sesame seeds. Enjoy!

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IOWA Health and Human Services

Sugar Snap Peas!

Draw and label a picture of the pea pod here:

I think there are _____ peas inside the pea pod.

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Pick a Better Snack Lesson

Sugar Snap Peas!

Draw and label a picture of the pea pod here:

I think there are _____ peas inside the pea pod.

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Additional Materials

Physical Activity

"Wiggles" (from Get Movin' Activity Breaks book, page 10). More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Peas

- Peas grow in Iowa; They do well in cooler temperatures (plant in early spring and late fall), not the intense summer heat.
- Peas are a member of the legume family, which includes plants with pods enclosing fleshy seeds.
- Sugar snap peas have an edible, crunchy pod with sweeter, full-sized peas inside. Snow peas also have a pod that you can eat. Their pod is flatter with smaller peas.
- Green peas must be shelled before eating; the pods are not edible.
- Green peas can be found in the grocery store fresh, canned or frozen.
- Fresh sugar snap pea pods should be firm, bright green and appear ready to burst.
- Keep unwashed sugar snap peas in the refrigerator for up to three days.

Facts About Peas

- Today only 5% of peas grown are sold fresh. Most are canned.
- Sugar snap peas began in the 1960s by crossing green peas and snow peas.
- Sugar snap peas convert their sugar to starch just hours after harvest. Keep the peas cold to slow down the conversion of sugar to starch to help them stay sweet.

Health Connection

- Sugar snap peas, snow peas and green peas are excellent sources of Vitamin C, to help heal cuts and wounds and keep our immune system strong. Reinforce with defense shield (Cross arms out in front of chest.)
- Peas are a good source of fiber, to help you feel full longer and move food through your body. Reinforce by rubbing stomach.
- Green peas contain Vitamin A, to help keep our eyes healthy. Reinforce with super goggles (Make goggles with your hands over your eyes.)
- Green peas have more protein than many other vegetables, about 4 g per ½ cup. (Use your arms to show your muscles.) One cup of sugar snap peas has about 2 g protein.

References and Resources

https://yardandgarden.extension.iastate.edu/how-to/growing-peas-iowa
https://www.extension.iastate.edu/news/ask-isu-extension-garden-experts-about-growing-peas
https://snaped.fns.usda.gov/seasonal-produce-guide/peas
https://spendsmart.extension.iastate.edu/produce-item/peas/
https://foodhero.org/recipes/parmesan-peas

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IOWA Health and Human Services

Peach

GRADE K-1

Month: April
Time Required: 30 minutes
Alternative Tastings: Plum, Apricot, Avocado

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to identify sources of food for bees.
- ❑ Students will be able to discuss the process of pollination.

Materials

- ❑ Link to bee pollinating video
- ❑ Fruit/Flower cards (attached)
- ❑ "Bea's Bees" book by Katherine Pryor
- ❑ Song or bee sound for physical activity
- ❑ Peaches for tasting (recommend frozen or canned)
- ❑ Napkins or small paper plates

Optional *(if making bees):*

- ❑ Black and yellow chenille sticks/pipe cleaners – 1 stick each per student
- ❑ White chenille sticks/pipe cleaners – ½ stick per student

Preparation

- ❑ Print the attached flower/fruit cards and fold the paper in half horizontally, so the flower and the fruit are on opposite sides.
  - Consider laminating the cards to better withstand reuse.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1 LS1.C: Plant survival needs

First grade - 1-LS1-1 LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletters, Stickers
- ❑ Lesson Objectives
- ❑ Science Connection: Things plants and insects need (K) & plant and animal structures (1st)

Recommended Books

"These Bees Count!" by Alison Formento
"Animal Pollinators" by Jennifer Boothroyd
"From Pit to Peach Tree" by Ellen Weis
"The Beeman" by Laurie Krebs and Valeria Cis
"Bea's Bees" by Katherine Pryor
"The Perilous Pit" by Orel Protopopescu
"Brilliant Bees" by Linda Glaser

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

2. Engage Activity: *5 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Gather students in a large circle or have them remain at their desks. *Today, we're going to learn about how flowers and bees share with each other. But first I want to know, what is something that you like to share? Think about this in your head, and when I say "buzzzz," turn to a partner and share your thoughts. "Buzzzz."* Give students time to discuss, making sure all students have a partner and time to share. *"Buzzzz"* again to get students attention. Randomly select a few students to share aloud (pick a stick would work well here).

Discuss responses and then say, *just like we share* (insert students' examples), *flowers share food with bees.*

Explore

3. Experiential Learning: *14 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Seat students (opportunity for 3 deep breaths). *Bees and flowers help each other. We're going to watch a short video of bees visiting flowers to learn how they help each other.* Play this 1-minute video, pausing if preferred, and narrate what is happening: Bees in slow motion pollinating apple blossoms (0:58). Repeat the video if needed.

- (0:06) *The bee visits the flower looking for food.*
- (0:11) *The bee finds food. Bees get two kinds of food from flowers:* ***nectar*** *and* ***pollen****. Nectar is a sweet juice, and pollen is a yellow powder.*
- (0:16) *While the bee collects the food from the flower, some of the pollen sticks to the bee's legs in a special structure called a pollen basket.* Point to the yellow pollen baskets on the bee's legs.
- (0:22) *The bee then flies to another flower to get more food. When it visits the new flower, some of the pollen falls off the bee's legs onto the flower.* (The video doesn't show pollen falling off the legs.)
- (0:30 - 0:58) *The bee is moving pollen from flower to flower while it eats. This is called* ***pollination****.*
- *Pollination is the transfer of, or moving of, pollen from flower to flower.*
- *Pollination helps the flower become a fruit. Once the flower is pollinated, it can produce fruit.*

Bees need flowers for food, and flowers need bees for pollination, so that they can turn into fruit. We've tasted fruit this year in Pick a Better Snack that needs pollination to grow. What fruit have we tasted this year? (pear, kiwi, pineapple) *That's right! Pears, kiwi, pineapple all grow because of pollination. Many fruits need pollination to grow, like oranges, apples, avocados, cranberries, blueberries, lemons and limes, and many more. Another fruit that grows because of pollination is – peaches! Today we are going to taste peaches.*

Explore

Optional (You will likely have time for this, unless you are making the chenille stick bees): *First, I want to read you a book about pollination. The title of the book is "Bea's Bees." The author is Katherine Pryor. The illustrator is Ellie Peterson*. Point to the names on the book. As you read, ask questions like:

1) *What do bees eat?* (pollen and nectar)
2) *What does a bee do to help flowers?* (moves pollen from flower to flower to pollinate it)
3) *How does pollination help a flower?* (makes it able to grow fruit)
4) *Why are bees important to us?* (they help give us food)

Physical Activity

Before we taste peaches, we are going to move our bodies and act out pollination. Set up the flower/fruit cards around the room. (The cards are folded in half so that one side is a flower and the other side is a fruit). All the cards should have the flower side faced up. Tell students that they are the bees. When they hear the "Bees Buzzing" sound effect or the Betty and the Turnips, "Little Bees" song (or a similar song), they will move to any flower in the room. When the sound stops, they should be at a flower. With students in small groups at flowers scattered around the room, say a physical activity for them to do and the number of reps (ex: say "Do 5 toe touches").

Tell students that bees communicate to one another by wiggling their bodies. This is called the waggle dance. (See the resource page for videos to learn about the waggle dance.) Students can wiggle their "bee-hinds" as one of the physical activities. After each physical activity, play the buzzing sound or song again while students move to a different flower. Stop the sound and say a different physical activity. Repeat for several rounds. After a few minutes, end the activity. Say, *Great job, bees! You have pollinated all our flowers.* Turn the card over and show the fruits that are now able to grow.

Optional: Rather than students serving as the bee, have students make chenille stick/pipe cleaner bees to fly to each flower in the room. See directions included in the lesson.

Have students return to their seats for the tasting. If they made bees, instruct students on what to do with their bee.

4. Tasting Activity: *3 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Before students receive samples, be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). As students receive their samples, ask them to use their senses while they wait.

Since peaches are not in season this time of year, making it difficult to find a tasty, ripe peach, provide canned or frozen peaches to taste. If using canned, look for peaches packed in 100% juice. Optional: lightly sprinkle cinnamon on peaches.

Reflect

5. Voting Activity: *2 minutes*

This is a time for students to give their opinion on what they tried!

As students taste the peach, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *4 minutes*

Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Choral Response:

I'm going to ask a question and you're going to quietly think to yourself. When I say "buzzzz," you can say your answer aloud. Let's practice…

- *What month is it?* (April)
- *What food did we try today?* (Peaches)
- *What do flowers share with bees?* (Food - nectar and pollen)
- *How do bees help flowers?* (Pollination)
- *What is pollination?* (transfer or movement of pollen from flower to flower)
- *What is a fruit that grows because of pollination? (peach, kiwi, pear, pineapple, apple, lemon, etc.)*

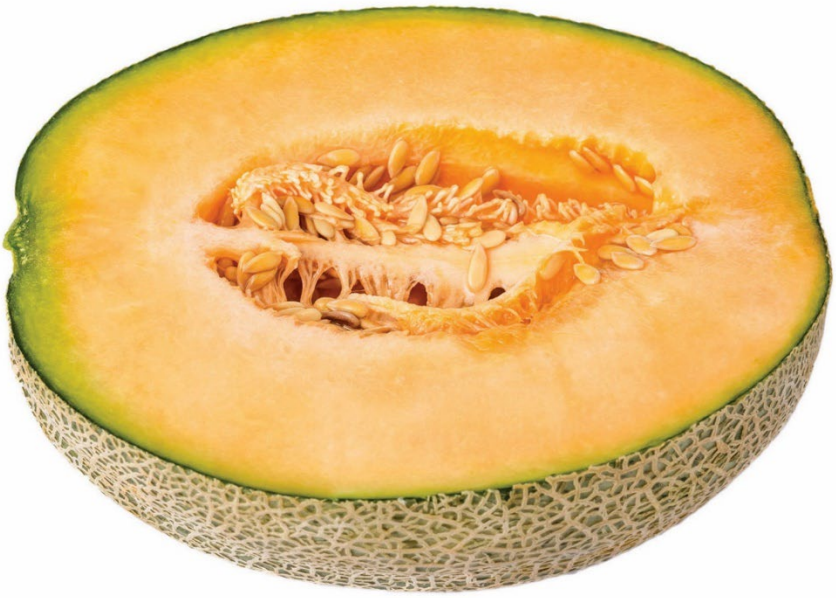
Asking Discussion:

Raise your hand if you're excited to go home and tell your family about tasting peaches.

- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *where could you buy peaches?*
- *When could you eat peaches at home? Do you see peaches at school lunch, breakfast or snack?*

Leave newsletters and stickers with the teachers to pass out.

CANTALOUPE



CRANBERRIES

MANGO

STRAWBERRY

PEAR

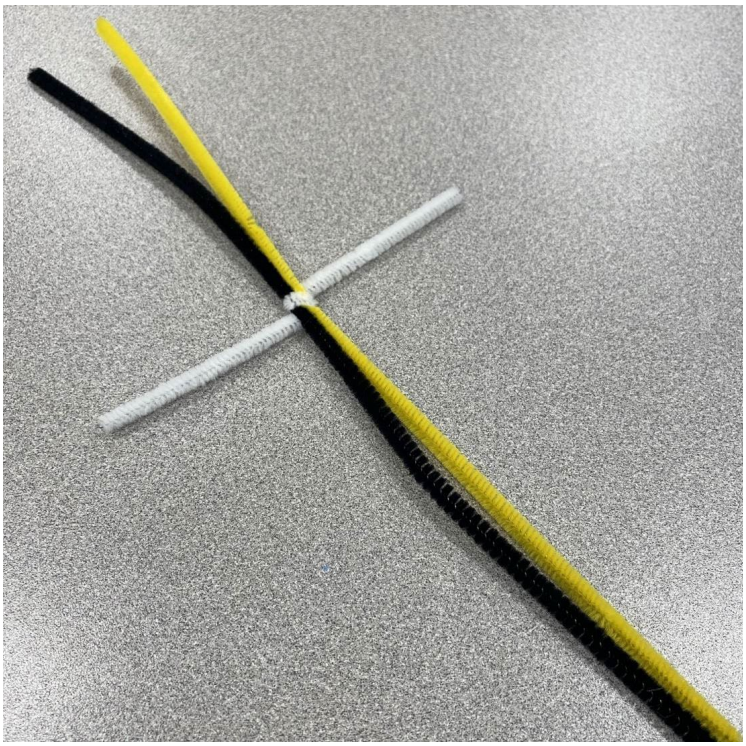
KIWI

PEACH

Chenille Stick/Pipe Cleaner Bees

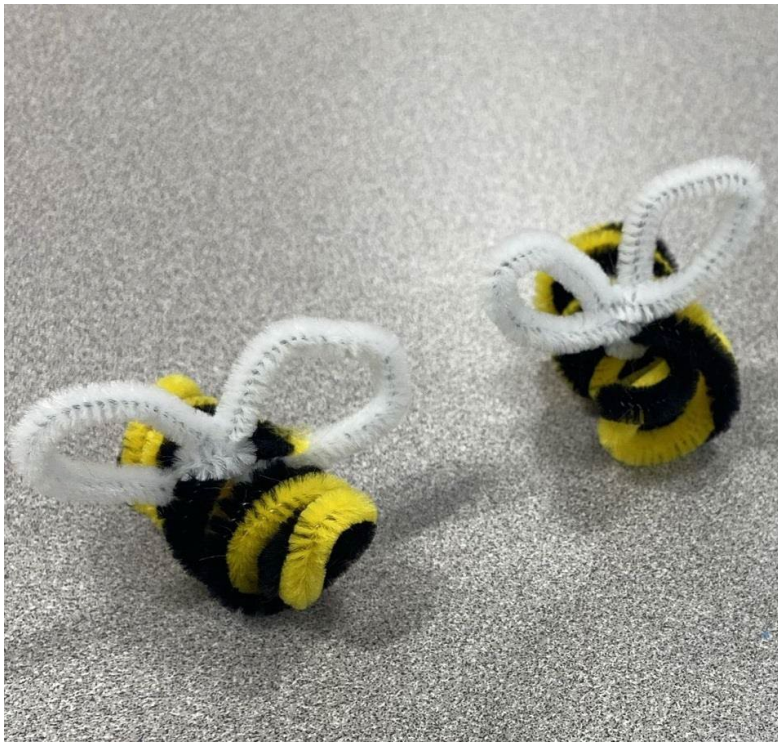
Step 1: Give each student a black, yellow and white (shorter) chenille sticks (aka pipe cleaners).

Step 2: Wrap the white stick around the yellow and black sticks.



Step 3: Wrap yellow and black sticks around your finger and point the white ends up.

Step 4: Bend in each white end to form wings. Pull the sticks off your finger.



Additional Materials

Physical Activity

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Peaches

- Peach season is May to October, peaking in June, July and August.
- Peaches discolor quickly when cut open. To keep from discoloring, sprinkle peach with lime or lemon juice.
- Nectarines are a type of peach with smooth skin (no fuzz). Choose peaches with no blemishes.
- Peach trees are short-lived (only about 20 years).
- Peaches don't get sweeter once picked, so pick at peak ripeness for the best taste.
- Peaches can be eaten fresh, frozen, dried or canned. Enjoy them plain for a snack or with a meal as well as in appetizers and entrees.

Facts About Peaches

- The Spanish brought the peach to America. It became a favorite of the Native Americans.
- Peaches are considered a stone fruit because the fruit surrounds a shell with a seed.
- The United States is the world's leading grower of peaches.
- Most peaches grow in California, Georgia and South Carolina in the United States. Georgia is known as the "peach state." California leads the country in peach and nectarine production.

Health Connection

- Peaches are a good source of Vitamin C. Reinforce with defense shield. (Cross arms in front of chest to ward off the germs).
- Peaches have Vitamin A. Reinforce with super goggles. (Make goggles with your hands over your eyes).
- Peaches have fiber, to help you feel full and move food through your body. Reinforce by rubbing your stomach.

References and Resources

https://www.youtube.com/watch?v=LA1OTMCJrT8 – Learn about the Waggle Dance
https://www.youtube.com/watch?v=pb1IRI-YePU&t=59s – More about the Waggle Dance
https://spendsmart.extension.iastate.edu/produce-item/peaches/
https://snaped.fns.usda.gov/seasonal-produce-guide/peaches
https://fruitsandveggies.org/stories/5-facts-about-canned-foods/
https://www.fs.usda.gov/managing-land/wildflowers/pollinators/what-is-pollination
https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/
https://gardenatschool.wordpress.com/2012/06/16/pollination-games/

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IOWA Health and Human Services

Spinach

GRADE K-1

Month: May
Time Required: 30 minutes
Alternative Tastings: Kale

Lesson Goals

- ❑ Students will increase their knowledge of fruits and vegetables.
- ❑ Students will learn to try new fruits and vegetables and increase their preference for them.
- ❑ Students will learn that their peers like to eat fruits and vegetables.
- ❑ Students will learn how to ask their parents/caregivers for the fruits and vegetables tasted in class.

Lesson Objectives

- ❑ Students will be able to associate play and energy.
- ❑ Students will be able to identify what plants need to make energy.
- ❑ Students will be able to identify the function of leaves.

Materials

- ❑ Bag of leaves collected from various trees and garden plants
- ❑ K-1 photosynthesis image (attached)
- ❑ Fresh spinach
- ❑ Napkins or paper plates

Optional Items:

- ❑ Book: “Sylvia’s Spinach”
- ❑ Play Your Way One Hour a Day cards (attached)
- ❑ Ingredients for Dressing and gallon Ziploc bag
- ❑ Supplies for planting activity: small cups, soil, spinach seeds, small cups for watering

Preparation

- ❑ Optional: Print attached Play Your Way One Hour A Day cards and cut in half; prepare one per student.
- ❑ Collect 25-30 leaves outdoors, from various trees, garden plants, or grocery store (examples: kale, collards, spinach, maple, oak, lettuces, cabbage, herbs, etc.).
- ❑ Send classroom teacher any links you want to use.

Standards Connection

This lesson supports the following Iowa Core standards.

Health Education
Standards 1, 2, 3, 4, 5, 7, 8

Science
Kindergarten - K-LS1-1 LS1.C: Plants need water and light

First grade - 1-LS1-1 LS1.A: Structure and function

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ “Asking” Discussion
- ❑ Newsletters, Stickers
- ❑ Science Connection: Plant survival needs (K) and function of leaves (1st)

Recommended Books

“Sylvia’s Spinach” by Katherine Pryor
“Our Community Garden” by Barbara Pollak
“Muncha! Muncha! Muncha!” by Candace Fleming
“Tiny Green Thumbs” by C.Z. Guest
“From the Garden” by Michael Dahl
“Frog and Toad Together” by Arnold Lobel (Chapter 2: The Garden)

Engage

1. Introduction: *2 minutes*

The "Introduction" section is a time to introduce yourself, recap previous lessons, establish norms, or introduce the day's lesson.

2. Engage Activity: *8 minutes*

The "Engage Activity" section has two purposes: 1) to activate students' prior knowledge and 2) to engage every student.

Gather students in a circle. *Say, Think of a way you like to play. It could be your favorite game, a dance, a sport, something you like to do outside or at recess. Think about this in your head and when I say the word, "leaves," act out your favorite way to play. "Leaves."* Give students a minute or so to act out their activity, then randomly select a few students to share.

Thank you all for sharing! When we move our bodies by playing (insert student examples), *we get energy. What do we get when we move our bodies?* Choral response: *energy*! *Today, we're going to learn about how leaves make energy.*

Book Option: If time allows, consider reading a book such as:

- Katherine Pryor's "Sylvia's Spinach". Connection to the lesson: *We're going to read a book about a little girl's journey to try a new leafy vegetable.*
- Barbara Pollak's "*Our Community Garden."* Connection to lesson: *We're going to read a book about kids who like to play outside in a garden.*

Physical Activity: Story in Motion "Working in the Garden"

Now that we have learned more about growing vegetables [whether it be in a windowsill like in "Sylvia's Spinach" or in a garden like in "Our Community Garden"] *let's act out working in a garden*.

- Read the bullet pointed story to the students and have them act out each part as you read: Story in Motion: Working in the Garden

Alternative Physical Activity Option:

Another activity to consider is leading the students through some simple yoga poses. This resource provides six simple yoga poses that represent growing from a seed, to bloom, to butterfly.

- Plant Yoga: From Seed to Bloom: Spring Yoga Sequences for Kids

If you prefer showing a video they follow along to, here are two options:

- Seed to Tree Yoga: Seed To Tree | Yoga For Kids | Ages 3+ | 3 Minutes
- Energizing Yoga: Energizing Yoga | Yoga For Kids | Brain Break | Ages 3+ | 5 Minutes

Explore

3. Experiential Learning: *8 minutes*

This is a time for students to familiarize themselves with what you'll be tasting. The best way to do this is through a hands-on or exploratory activity.

Seat students in a circle (opportunity for 3 deep breaths). Pass out an assortment of leaves to students, they can pass them around or share with a partner if there's not enough for them to each have one. Leaves can be collected outside on trees, from the garden, or grocery store (examples: kale, collards, spinach, maple, oak, lettuces, cabbage, herbs, etc.). Ask students to examine their leaves. *What do you see? What does the leaf feel and smell like? Where do you think the leaves came from?*

- Option: break the classroom into 2 groups. The classroom teacher can support one group while the PABS educator works with the other.
- Option: have students work in partners or small groups to compare and contrast their leaves.

Tell students, *We're all holding leaves. These leaves came from different plants, such as* (share plant source; consider sharing pictures of full plants on a slide or doc-cam). *Leaves have an important job. Leaves make energy for plants by taking in* ***sunshine*** *and* ***air****. Then, leaves combine sunshine and air with* ***water*** *from the plant's roots to create energy.* Show attached image for a helpful visual (this image is simplified from grade 2-3 photosynthesis lesson). Repeat these three terms with kinesthetic movements several times:

- ***Sunlight*** (wave hands and fingers overhead)
- ***Water*** (rain hands down from overhead to the ground)
- ***Air*** (put hands around mouth and blow out).

There are many types of leaves that we can eat. Today, we're going to try a leaf called spinach. Just like leaves make energy for plants, we get energy when we eat leaves like spinach! With student or teacher helpers, pass out tasting materials.

Optional: Spinach Seed Planting: Bring materials to plant spinach seeds with students that they can take home. This would be a good connection to the book reading, "Sylvia's Spinach".

4. Tasting Activity: *3 minutes*

The "Tasting Activity" section is when students get to try the fruit or vegetable. Don't forget to review your food tasting norms (for example, "don't yuck my yum").

Before students receive samples, be sure to review your brave tasting rules (for example, don't yuck my yum, we all try together, etc.). Identify a couple students to help with hand sanitizer and pass out napkin or paper plate. As they receive their samples, ask them to use their senses while they wait.

It is recommended to have the students try a bite of spinach with or without dressing. If you want to offer dressing, consider making a small batch in front of the students. Place a few droplets on a plate with the spinach leaf or dip their leaf in the jar before handing to them or placing on napkin/plate. (A little goes a long way with this type of dressing.) [Mix equal parts oil and orange juice (or lemon/lime) with a sprinkle of seasonings (oregano or other herbs in a jar.)

- Example: 1 Tablespoon olive oil + 1 Tablespoon juice + sprinkle of seasonings for a small classroom size batch. Add to gallon size bag of spinach and shake before distributing.
- How to Make Salad Dressing.pdf | Powered by Box

Reflect

5. Voting Activity: *2 minutes*
This is a time for students to give their opinion on what they tried!

As students taste the spinach, have them vote with their thumbs. Observe their voting and offer positive reinforcement regarding the Brave Taster Rules. If a student dislikes the tasting, perhaps ask what they would change about it.

6. Reflection: *7 minutes*
Reflection is one of the most important processes for students to process and retain new information or experiences. Give students an opportunity to reflect on what they've learned or tried in your lesson. This is an excellent place for students to practice the "Asking Discussion."

Play Your Way One Hour A Day: *Playing gives us energy. Wouldn't it be fun to play every day this summer?! Think about some of your favorite ways to play that you can do this summer.*

- Optional: Pass out "Play Your Way One Hour A Day" cards.
- You can instruct they brainstorm and share their summer activity goal or take time for them to draw on the card. They may not be able to write out sentences, but you could write a few short ideas on the board based on what they share.

Choral Response: *I'm going to ask a question and you're going to quietly think to yourself. When I say "leaves," you can say your answer aloud. Let's practice…*

- *What month is it? (*May)
- *What food did we try today?* (Spinach)
- *What plant part is spinach?* (Leaves)
- *What three things do leaves need to make energy for plants?* (Sunshine, water, air)
- *How long should we play and be active each day?* (One Hour)

Asking Discussion:
Raise your hand if you're excited to go home and tell your family about tasting spinach.

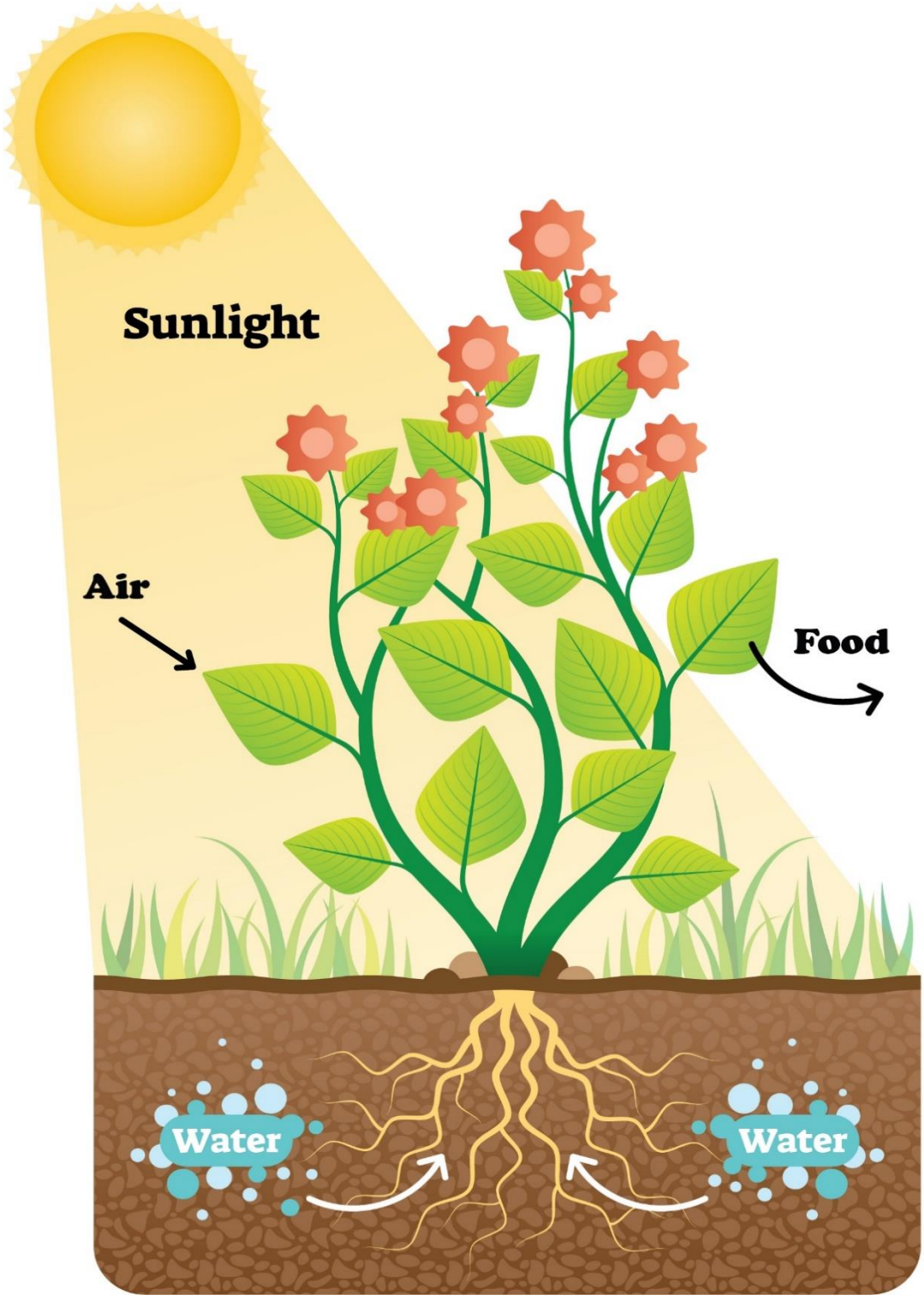
- Ask a student with a raised hand: *if you wanted to try this at home, how might you ask your grown-ups?*
- You might also ask additional questions like, *what is something you remember about spinach, where could you buy spinach?*

Since it is the last lesson of the year, thank the class for being such great learners this year and ask a few reflection questions about the other lessons.

- *What other vegetables and fruits did we try this year that you liked? (Zucchini, Pear, Sweet Potato, Kiwi, Chickpea, Pineapple, Snap Pea, and Peach)*
- *What fruits or vegetables have you tried at home?*

*Leave newsletters and stickers with the teachers to pass out.

Leaves make **energy** for plants.



Play Your Way One Hour A Day!

This summer, I will play:	Draw a picture of play!
1.	
2.	
3.	

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IOWA Health and Human Services

Pick a better snack Lesson

Play Your Way One Hour A Day!

This summer, I will play:	Draw a picture of play!
1.	
2.	
3.	

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IOWA Health and Human Services

Additional Materials

Physical Activity

More ideas for physical activity are available at https://hhs.iowa.gov/pick-better-snack/materials.

What You Need to Know About Spinach

- Choose spinach with fresh, crisp green leaves with no spots or signs of damage.
- Spinach is a dark green vegetable. While all lettuces are healthy, darker leafy greens generally offer more nutrition (e.g., spinach v. iceberg lettuce).
- Spinach is available fresh, frozen and canned.
- Wash fresh spinach under clean, running water before eating. Bagged spinach is pre-washed and ready to eat.
- Spinach is an annual plant, so it must be planted each year.
- Spinach can grow in Iowa and grows best in cool, damp weather. Peak seasons are spring and fall.

Facts About Spinach

- Spinach originated in Persia (modern Iran). It was not commonly eaten in the U.S. until the early 19th century.
- Spinach was the first frozen vegetable available commercially.
- Many Americans associate spinach with Popeye, a 1929 cartoon character who ate spinach to gain his strength.
- Annual consumption of spinach increased drastically from 1992 to 2002 according to USDA's Economic Research Service, mostly due to availability of pre-cut, bagged spinach.
- California produces the most spinach grown for commercial use in the U.S. Other states that produce much of the commercially grown spinach are Arizona, New Jersey and Texas.

Health Connection

- Spinach is high in vitamin C, which helps to heal and protect the body. Reinforce with defense shield and cross arms in front of chest.
- Spinach is high in Vitamin A, which is important for eyes, skin and growth. Reinforce with super goggles and make circles with hands over eyes.
- Spinach is an excellent source of fiber, which helps with digestion and helps us feel full longer. Reinforce by rubbing stomach.

References and Resources

https://spendsmart.extension.iastate.edu/produce-item/greenslettuce/
https://snaped.fns.usda.gov/seasonal-produce-guide/spinach
https://www.cdc.gov/physical-activity-education/guidelines/?CDC_AAref_Val=https://www.cdc.gov/healthyschools/physicalactivity/guidelines.htm
http://togethercounts.com/wp-content/uploads/2017/11/K-2_Curriculum_ALL-1.pdf
https://www.youtube.com/watch?v=peQwwRPWnjs - SNAP-Ed tips on Spinach
https://growing-minds.org/documents/spinach-smoothies.pdf/ - Spinach Smoothie recipe

This institution is an equal opportunity provider. This material was funded by USDA's Supplemental Nutrition Assistance Program – SNAP. March 2025

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