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 (straightneck squash, patty pan)
- ❑ Two varieties of winter squash (butternut, acorn)
- ❑ Prepared bag of spiralized zucchini noodles (or demonstrate this during the lesson)
- ❑ Serving spoon or squeeze bottle for dressing
- ❑ Tongs for serving zucchini noodles
- ❑ Paper plates and forks

Preparation

- ❑ 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.
- ❑ Select or make a dressing of your choice to serve with the zucchini noodles.

Recommended Books

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

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, Bingo cards, Stickers, Incentives
- ❑ Science connection: Plant patterns (K) & plant parts (1st)

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 learn 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.

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! 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.

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 students in a large circle (opportunity for 3 deep breaths).

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

Summer + Winter Squash Exploration

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. We're going to observe some winter and summer squash and look for patterns in their similarities and differences. Split students into four smaller groups. Give two groups a variety of summer squash (ex: zucchini, straightneck squash, patty pan squash), and two groups a variety of winter squash (ex: butternut, acorn, delicata). Ask students to observe the squash using their senses. As a group, they will come up with three words to describe the squash. Classroom teacher should work with two small groups as the PABS educator works with the others. *Option: split the class into two small groups (rather than four) and the classroom teacher can work with one group.*

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. 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.

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.

If possible, 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."

Reflect (cont'd)

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)

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, incentives, stickers, and BINGO sheets with the teachers to pass out.

Additional Materials

Physical Activity

"Stories in Motion: A Visit to the Vegetable Patch" (page 59)
More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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://harvestofthemonth.cdph.ca.gov/documents/Summer/021712/ED_Zucchini_Newsletter_Final.pdf
https://fns-prod.azureedge.net/sites/default/files/gd_lesson1_0.pdf
https://hortnews.extension.iastate.edu/2003/4-1-2003/squash.html
https://homeguides.sfgate.com/zucchini-plants-start-vine-56658.html
https://www.gardenguides.com/80661-train-zucchini-vine-trellis.html

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Pick a better snack™

IDPH IOWA Department of PUBLIC HEALTH

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

Preparation

- ❑ Gather an assortment of materials for the sensory, exploratory activity.
- ❑ Option: make or print a “My 5 Senses” body part poster for visual aid in discussing senses.

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

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, Bingo cards, Stickers, Incentives
- ❑ Science connection: Making observations

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.

2. Engage Activity: *6 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, standing circle. Share: *When I come to your classroom, we're going to have fun trying foods together and learning about each other. So 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, without saying anything, I want you to act out what you're thinking of. 1-2-3. Observe all students' activities, and ask a couple of students to share their activity 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"). 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

Explore (cont'd)

**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 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.*
- *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, incentives, stickers, and BINGO sheets with the teachers to pass out.

Additional Materials

Physical Activity

"Reach, Twist, Snap"
Act out harvesting apples/pears.
Reach up on tip toes with arms over head.
Twist wrist to snap off the fruit from the tree.
Put feet flat on floor after have snapped off fruit.
Twist the upper torso side to side.
Twist whole body to ground, scrunching down to ground (like doing the twist). Repeat all 2-3 times.

More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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

http://usapears.org/pears-and-kids-nutrition/; http://usapears.org/pear-varieties/
https://harvestofthemonth.cdph.ca.gov/Pages/default.aspx
https://snaped.fns.usda.gov/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/

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Pick a **better** snack™

IDPH Iowa Department of Public Health

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

- ❑ One fresh sweet potato
- ❑ Variety of at least four fresh root vegetables (Ex: one carrot, one radish, one beet, one potato)
- ❑ Cooking/tasting materials

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, Bingo cards, Stickers, Incentives
- ❑ 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.

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. *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, put their fingers to their temples, and think real 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 several times.

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 will taste today.

Split students into four smaller groups and give each group one root vegetable (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 should work with two small groups as PABS educator works with the others. *Option: split the class into two small groups (rather than four) and the classroom teacher can work with one group.*

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.

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.

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, incentives, stickers, and BINGO sheets with the teachers 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://idph.iowa.gov/inn/play-your-way/brain-breaks.

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/

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Pick a better snack™

IDPH Iowa Department of Public Health

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

- ❑ ½ kiwi per student
- ❑ 1 hula-hoop
- ❑ Images of kiwi growing on vines
- ❑ Green yarn
- ❑ Kiwi coloring template (attached below)
- ❑ Tape

Preparation

- ❑ If serving halved kiwis, wash and cut into equal halves and store in a clean container.
- ❑ If using online pictures and videos, have loaded at the beginning of the lesson.

Recommended Books

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

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, Bingo cards, Stickers, Incentives
- ❑ Science Connection: Making observations (K) & kiwi vines (1st)

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 large circle. *Today we'll be talking about kiwis, a fruit that grows on a special plant that provides **support.*** Note new vocabulary word: support. Define, write out, and repeat the word support. *To give support means you help others grow by giving them what they need. To have support means you're taken care of; you have what you need to grow.* Share a personal example of someone who supports you.

Now think to yourselves, who supports you? It could be teachers, grandparents, aunts/uncles, neighbors, parents, siblings, friends, etc. Think of someone who supports you. Stand up when I call that person… One by one, share an example of someone who supports the students. Ask several students to share examples of how they feel supported by the family members and friends they acknowledge as they stand and sit. After you have run through the list, ask *"did we miss anyone?"* to see if students have any additions. Thank the students for sharing.

Now, we're going to play a game that shows how we can all support each other by working together as a team. Explain and lead students in the Hula-Hoop Challenge.

Physical Activity: Hula-Hoop Challenge (from PlayWorks)

- Students stand in a circle with plenty of room between them. Start by walking around the circle with the hula hoop, helping each student practice going through it.
- Then set up the challenge without holding hands, simply going through the hoop, then passing it over to the next person.
- After they have done this successfully, demonstrate how to get body through the hula-hoop without using hands, while holding hands in the circle.
- The educator walks along with the hoop, helping students as needed.
- Have group cheer each other on.
- After one time around, discuss successes and challenges and try again.

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).

Explore (cont'd)

*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. Just like we need support to grow, vines need support as they grow.* 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 and are supported by the vine. *We're going to watch a short video that shows us how vines grow up a big tree that gives them support.*

Vine video: https://www.youtube.com/watch?v=fGBIT4ly-Vs Watch until 1:21 (longer or shorter).

With teacher or student helpers (those passing out fruit must wear gloves), pass out halved kiwis 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: Using their plastic knife, have students cut the kiwi into 2-3 smaller pieces. 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.).

Taste: Students are invited to taste the kiwi, first tasting the edible skin on the outside and then the inside fruit.

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."

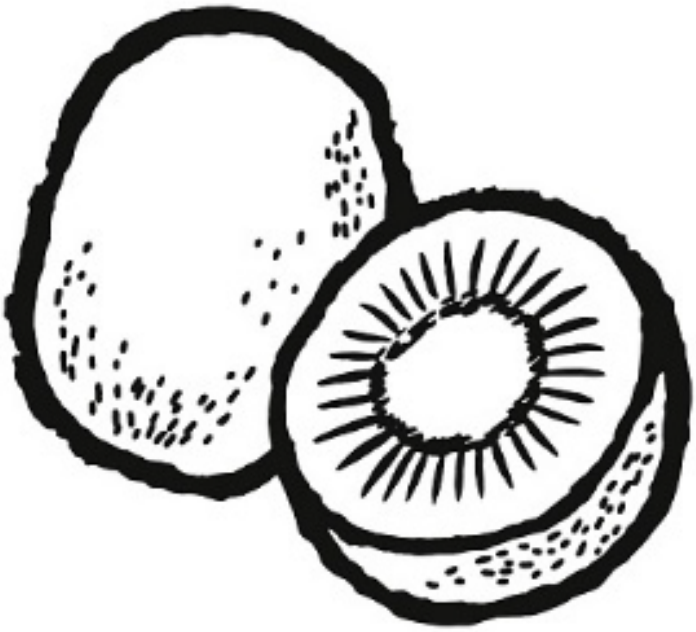
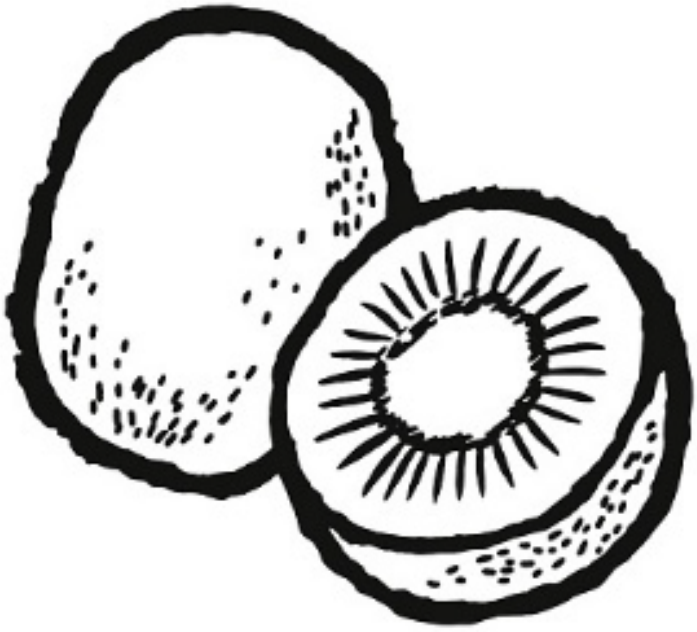
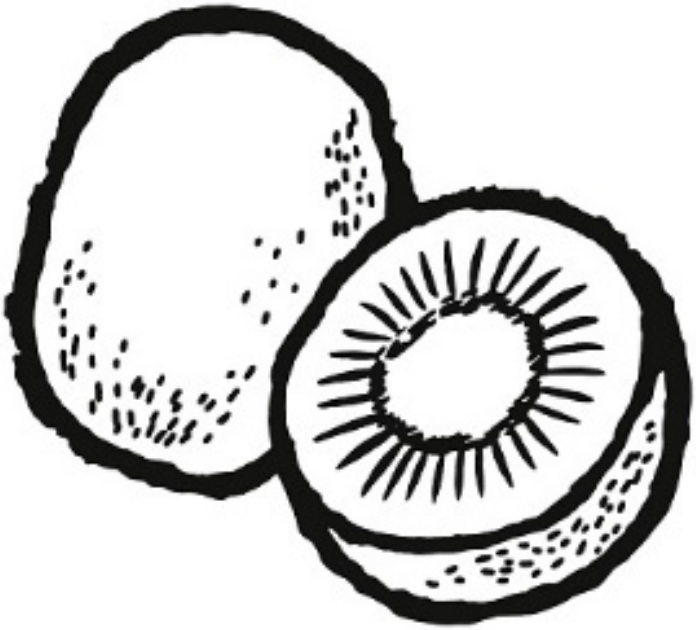
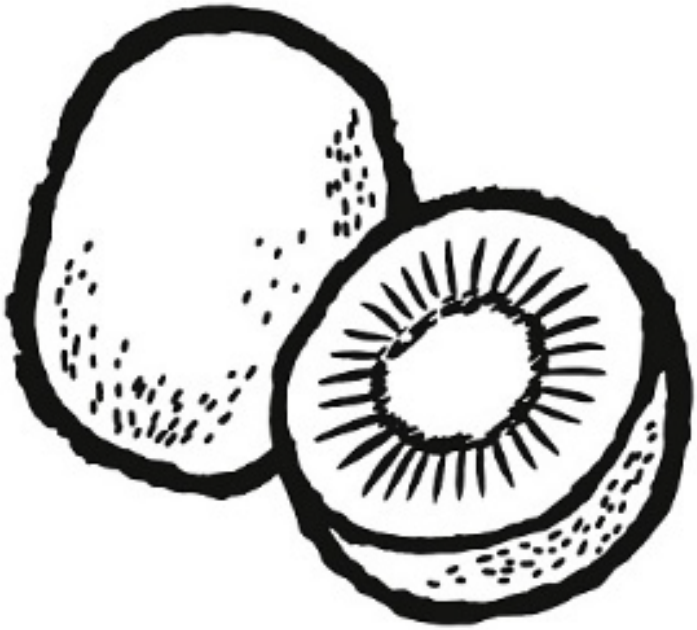
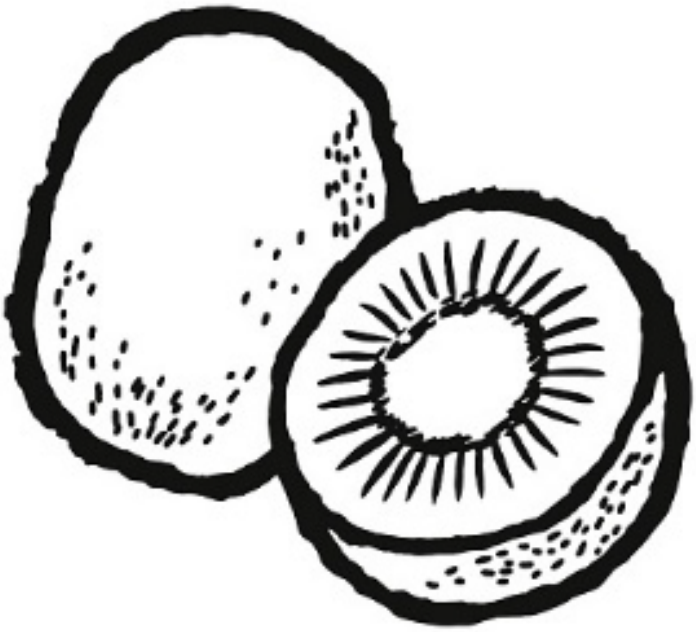
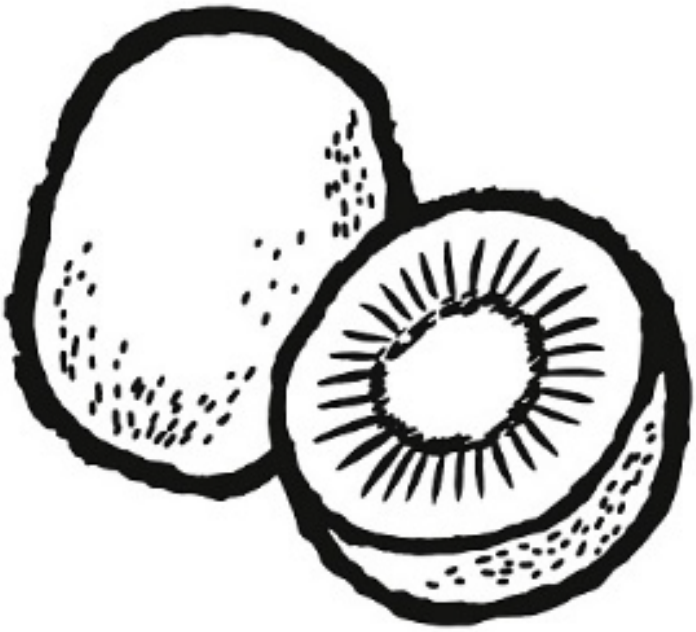
Reflect (cont'd)

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.

Reflection questions:

- *Will someone share what they liked or loved about the kiwi?* Select a couple students to share.
- *Will someone share how the skin on the outside of the kiwi tasted compared to the fruit on the inside?*
- *Will someone share what they would change about the kiwi?* Select a couple students to share.
- *What do kiwis grow on?* Vines
- *What was on the inside of the kiwi?* Seeds
- *Raise your hand if you're excited to go home and tell your family about tasting a 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 kiwis?*

Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.

Additional Materials

Physical Activity

"Stories in Motion: 3-2-1 Blast-off! A Trip to the Moon" (page 55) (a tie into the lesson on fueling our bodies like rockets).
More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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 fiber to help with digestion and help you feel full. Reinforce by rubbing stomach.
- Phytochemicals: natural plant chemicals that may help prevent disease and promote good health. Some phytochemicals give fruits and vegetables their color so it's important to eat a variety of different colored fruits and vegetables.

References and Resources

https://www.fns.usda.gov/tn/serving-myplate-yummy-curriculum
https://spendsmart.extension.iastate.edu/produce-item/kiwi-fruit/
https://snaped.fns.usda.gov/seasonal-produce-guide/kiwifruit
http://harvestofthemonth.cdph.ca.gov/Pages/Downloads.aspx
https://fruitsandveggies.org/fruits-and-veggies/kiwifruit/

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Pick a better snack™

IDPH Iowa Department of Public Health

Garbanzo Beans

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 identify what a seed needs to sprout.
- ❑ Students will be able to recognize garbanzo beans, and other beans, as seeds.

Materials

- ❑ Cooler
- ❑ Cleaning wipes
- ❑ Electric skillet or air fryer
- ❑ Plastic tote (to transport electric skillet)
- ❑ Spatula
- ❑ Power strip (with long cord)
- ❑ Water bottle with water
- ❑ Rags
- ❑ Small food storage bags (for Bean Buddies)
- ❑ Paper towels (for Bean Buddies)
- ❑ Tasting materials (plates, napkins, etc.)
- ❑ Garbanzo beans for roasting
- ❑ Olive oil (or canola, vegetable, etc.)
- ❑ Salt, pepper
- ❑ Permanent marker (for Bean Buddies)
- ❑ Tape (for Bean Buddies)
- ❑ Serving cups or napkins

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, Bingo cards, Stickers, Incentives
- ❑ Science Connection: What seeds need

Preparation

- ❑ Rinse the 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.
- ❑ Prepare a Bean Buddy to troubleshoot any issues and have a model to show students.

Recommended Books

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

Engage

1. Introduction: *5 minutes*

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

As soon as you arrive in the classroom, immediately plug in the electric skillet or airfryer 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 and dried chickpeas, 1 tbsp 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 tbsp oil over medium or medium-low heat (this depends on your electric skillet). Once hot, add dry 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: *10 minutes*

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

At the carpet, *Today we're trying beans and there are lots of different types of beans!*

Physical Activity: Bean Movement Game

For each "bean" the educator calls out, the students act out the name. The educator can hold up a bean card (shared at the end of this lesson) as a helpful visual. Consider choosing only three of four "beans" and repeating. 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

With all students seated, *Every bean is a seed. Inside every seed is a baby plant. Seeds need special care to sprout and grow. I want to know, what is something you help take care of?* (Educator shares personal example: pet, child, sibling, friend, etc.)

Engage (cont'd)

Think-pair-share:

- *Think to yourself quietly.* Have students close their eyes, put their fingers to their temples, and think real hard.
- *Once you've thought of something that you take care of, crouch-down and curl-up like a tiny seed.*
- After several seconds, once everyone is crouched-down, select students to share out. If you use "pick a stick," this is a good way to randomly select students to share.

So everyone in this class takes care of something, and you all shared some great examples. Give examples from the activity that demonstrate shared characteristics.

Explore

3. Experiential Learning: *7 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).

Bean Buddies Sprouting Activity: *Seeds need our special care to sprout and grow. We need to give them two things: warmth and water.* (Choral response/repeat-back: *What do we need to give seeds?* Class says aloud, *warmth and water*) *We're each going to make friends with a seed today, and take care of it by giving it what it needs to sprout.* Show students your model bean buddy necklace. *My bean buddy here will get water from this wet paper towel and will get warmth from my body as I wear it. Eventually, after enough warmth and water, it will sprout. We're each going to make a bean buddy to wear and take care of.* Students can work independently or in small groups.

- Pass out a paper towel to each student and a couple of spray bottles to share (predetermine the number of spritzes that will adequately dampen the towel, and tell students to only use that many).
- Pass out one seed to each student, and have students fold their paper towel behind the bean.
- Pass out small food storage bags, and have students place their bean inside. Attach the baggie to a piece of yarn, turning the bean buddy into a necklace.
- Have students clean up and wear their bean buddies.

**Option: if it's not possible to make necklaces, tape students' bean buddies to the window to give them warmth. Students can write their names onto the baggies before taping onto the window.

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.

Reflect

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

As students taste the roasted garbanzo beans, 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 all answer at once. It's nice to have a visual cue to teach the kids. 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)
- *Whose class am I in?*
- *What food did we try today?* (Garbanzo beans)
- *What two things do seeds need to grow?* (Warmth and water)
- *What lives inside every seed?* (A new, baby plant)

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

- 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, incentives, stickers, and BINGO sheets with the teachers to pass out.

Additional Materials

Physical Activity

More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

What You Need to Know About Garbanzo Beans

- Available in dried, canned and frozen forms.
- Beans and peas contain plant protein, iron and zinc, similar to nutrients in meat, poultry and fish, so they can be represented in the protein group.
- Beans and peas contain dietary fiber, folate and potassium, which can be represented in the vegetable group. They 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, garbanzo beans (chickpeas), split peas and lentils.
- Chickpeas grow in pods on small bushes; one seed pod contains 2-3 chickpeas.

Facts About Garbanzo Beans

- 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 garbanzo bean 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://fns-prod.azureedge.net/sites/default/files/diginposter_dancing.pdf
https://spendsmart.extension.iastate.edu/recipe/after-school-hummus/
https://www.eatright.org/food/planning-and-prep/recipes/pizza-hummus-recipe
https://www.agmrc.org/commodities-products/vegetables/chickpeas
https://www.fns.usda.gov/tn/discover-myplate-student-workbooks

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Pick a better snack™

IDPH Iowa Department of Public Health

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 and/or cutting boards
- ❑ Disposable or reusable plastic kid-knives (for each student)
- ❑ Forks
- ❑ Knife
- ❑ Cutting board
- ❑ 1 ½ apples per 25 students
- ❑ ½ pineapple per 25 students
- ❑ 4 bananas per 25 students
- ❑ Tajín seasoning (optional)
- ❑ A whole pineapple
- ❑ Fruit images (see below)
- ❑ Map (see below)
- ❑ Near, Far, Farther coloring page (see below)

Preparation

- ❑ Cut the pineapple into 1 ½ inch cubes (or big enough for a student to cut into 2 or more pieces).
- ❑ Wash the apples.
- ❑ You could cut apples and bananas in advance, but there will likely be browning.

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, Bingo cards, Stickers, Incentives
- ❑ Science Connection: Plant survival needs (K) & plant parts (1st)

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 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.

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. 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. 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.* Write the word "far" on the board. *Pineapples grow even FARTHER away, in Costa Rica.* Write the word "farther" on the board. *And bananas grow the FARTHEST away in Peru.* Write the word "farthest" on the board. 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.*

Optional Visual: Students can move to the front of the room to look at the visuals together.
Google Earth map of locations: show to demonstrate near, far, and farther (select *Present* and move through 7 slides to show apples in Washington, pineapples in Costa Rica, bananas in Peru).
Google Map of locations: show lines and distances between Washington, Costa Rica, and Peru.

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.

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

Far, Farther, Farthest Fruit Salad
While holding up a whole pineapple, say, *For our tasting today, we're going to try our "farther fruit" from our activity: pineapple. Pineapple 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). *You're going to be a chef today and prepare your 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.

Before passing out materials, be sure to review the following safety:
- Always cut down.
- Always place your knife down on the table when you're not using it.
- Use pinching fingers or the bear claw to protect your fingers.

Pass out paper plates to each student. Paper plates can serve as both their cutting board and their plate, if you're not using reusable cutting boards. *Before* passing out knives, pass out the first piece of fruit and demonstrate how to properly cut it up. *Then* pass out knives. (Passing out plates and fruit first means no idle hands holding knives while waiting for fruit).

Continue passing out fruit, demonstrating how to cut.

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 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.

Reflect (cont'd)

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."

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?*
- 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, incentives, stickers, and BINGO sheets with the teachers to pass out.

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

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

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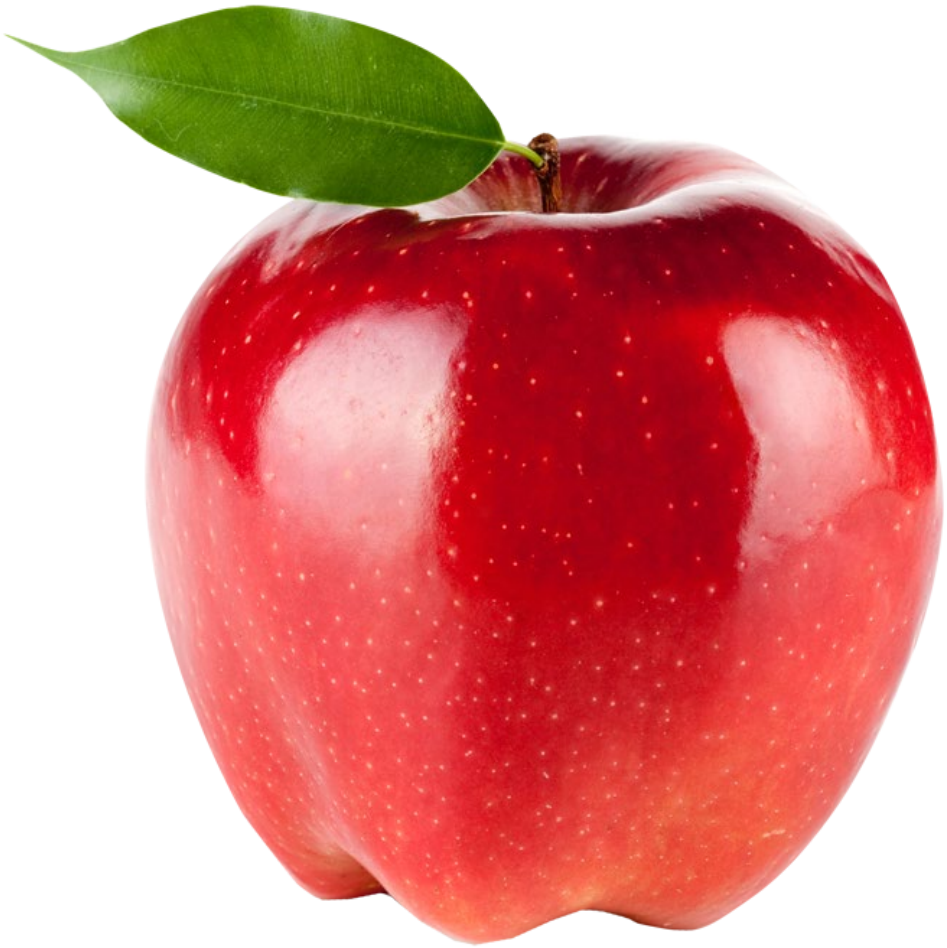
APPLE



BANANA

PINEAPPLE

Additional Materials

Physical Activity

"Stories in Motion: Planes, Trains and Automobiles" (page 67)

More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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
https://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/figure_food_production.html

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Pick a better snack™

IDPH Iowa Department of Public Health

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

- ❑ 2 tbsp sesame or olive oil
- ❑ 1 lb sugar snap peas, washed
- ❑ 1 tsp minced garlic (in a jar)
- ❑ 1 tbsp reduced-sodium soy sauce or tamari (a gluten free alternative, but check label to verify)
- ❑ 1 tsp chili oil (optional)
- ❑ Sesame seeds (optional)
- ❑ Cooler
- ❑ Ice pack
- ❑ Measuring spoons
- ❑ Water bottle with water (for cleaning)
- ❑ Tasting plates or cups
- ❑ Serving utensil
- ❑ Gloves
- ❑ Hand towel
- ❑ Cleaning wipes
- ❑ Electric skillet
- ❑ Power strip and extension cord
- ❑ Printed: recipes and worksheet (below)
- ❑ Water bottle with water (for physical activity)
- ❑ Flashlight

Preparation

- ❑ Wash the peas.

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

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, Bingo cards, Stickers, Incentives
- ❑ Science Connection: Plant survival needs (K) & observing plant structures (1st)

Engage

1. Introduction: *5 minutes*

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

As soon as you arrive in the classroom, immediately 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 sesame oil in a skillet over medium heat or medium-low heat (this depends on how hot your electric skillet gets).
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!

***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.

At the carpet, *Today we're trying snap peas. Let's all say that name together* (choral response): *snap peas*. *Peas are seeds, just like the garbanzo beans we tried in January. 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.*

Story in Motion - Story of A (Pea!) Seed: *Show me what a tiny pea seed looks like* (crouch down).

- **Water***: I'm going to come around and give water to these baby seeds* (mist water bottle above students' heads).
- **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).
- **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)!
- **Seedling:** *I'm going to give you a little more water and a little more 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)!
- **Plant:** *You are very thirsty plants, let me give you some more water! And some more sun! This last time I clap my hands you are going to grow into a full sized plant. Ready?* (clap)
- 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: 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 at their desks (opportunity for 3 deep breaths).

Snap Pea Dissection Instructions: *We're going to explore and dissect a snap pea before we taste our stir fry. You will each get one snap pea and a worksheet. Remember, we will use our senses to explore the snap pea as we dissect it - look at it, touch it, smell it, and listen to it - but don't eat it.* With teacher or student helpers, pass out snap peas, worksheets and hand sanitizer to all students.

Draw & Label: *First, we'll draw a picture of the pea pod - let's say that together: pod.* Using a doc-cam, draw a picture of the pea pod while students do this on their papers; describe the shapes as you draw it. *The pod is a special part of a snap pea plant that we can eat. The pod protects the seeds. Let's label it together* (label 'pods' as a class, spelling the word together).

Guessing & Dissecting: *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 guess there are 4 peas in this pod; I'm going to draw 4 peas* (show the class as you draw 4 peas inside the pod on the doc-cam). *Now you do the same thing - guess how many peas are inside your pea pod, write that number on your paper and draw that many inside your pod. Let's label the peas together* (label "peas" as a class, spelling the word together). *Next, we will use our fingers to carefully pull the pod apart to observe how many peas are on the inside.* Students begin dissecting and discussing their observations.

***Cooking tips:
- While students are doing this activity, check in on the peas. While students continue working, 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").

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. Taste the fresh sugar snap pea together, and then taste the stir fry.

Reflect

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

As students taste the stir fry, 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 magic word, "peas," you can say your answer aloud. Let's practice…

- *What month is it?* (March)
- *Whose class am I in?*
- *What food did we try today?* (Sugar Snap Peas)
- *What do peas grow in?* (Pods)
- *What are two things plants need to grow?* (Water and sunshine)

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?*

*Share printed copies of Sugar Snap Pea Stir Fry recipe for students to take home.
Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.

Sugar Snap Pea Stir Fry

Ingredients:
2 tbsp. sesame oil (olive oil will work too)
1 lb. sugar snap peas
1 tsp. minced garlic
1 tbsp. reduced-sodium soy sauce (or tamari – check for gluten free)
1 tsp. 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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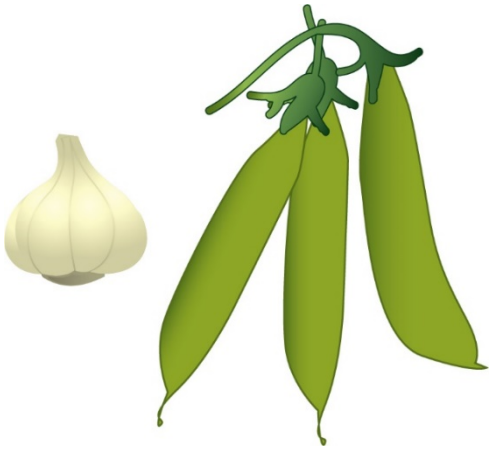
Pick a **better** snack™ Lesson

Sugar Snap Pea Stir Fry



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1 lb. sugar snap peas
1 tsp. minced garlic
1 tbsp. reduced-sodium soy sauce (or tamari – check for gluten free)
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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

"Get Movin' Engergizer: Wiggles" (page 10)
More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

What You Need to Know About Sugar Snap Peas

- Peas grow in Iowa. They may be eaten raw or cooked.
- Peas can be found in the grocery store fresh, canned or frozen.
- Peas are a member of the legume family, which includes plants with pods enclosing fleshy seeds. Peas do not take as long to cook as dried legumes, such as split peas and pinto beans.
- Sugar snap peas have an edible, crunchy pod with sweeter, full-sized peas inside.
- 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.
- Snow pea pods should be shiny and flat, with very small peas that are barely visible through the pod.

Facts About Sugar Snap Peas

- Today only 5% of peas grown are sold fresh. Most are canned.
- Peas have been around since ancient times. Some date back to 10,000 years ago.
- Sugar snap peas began in the 1960s by crossing green peas and snow peas.
- The third president of the United States of America, Thomas Jefferson, planted more than 30 kinds of peas in his garden in Monticello, VA.
- There are two types of peas: those with edible pods (sugar snap peas and snow peas) and those with inedible pods (green peas, also called sweet peas or garden peas).
- Sugar snap peas are edible pod peas that are called mange tout, a French term meaning "eat all."
- 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.)
- Green peas are a good source of Vitamin A, to help keep our eyes healthy. Reinforce with super goggles (Make goggles with your hands over your eyes.)
- Green peas are a good source of fiber, to help you feel full longer and move food through your body. Reinforce by rubbing stomach.

References and Resources

https://www.extension.iastate.edu/news/ask-isu-extension-garden-experts-about-growing-peas
https://snaped.fns.usda.gov/seasonal-produce-guide/peas
https://educateiowa.gov/pk-12/nutrition-programs/school-meals/communication-tools#Program_Promotion
https://www.eatright.org/food/resources/national-nutrition-month; https://schoolnutrition.org/

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September 2020

Pick a better snack™ IDPH Iowa Department of Public Health

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

- ❑ Pollination demonstration necklaces (attached, one per student)
- ❑ Sticky notes (pollen)
- ❑ Peach tasting (fresh - sliced, frozen, canned or dried)
- ❑ Napkins

Preparation

- ❑ Make cards for Pollination Demonstration:
  - Print the attached flower/fruit cards (enough for one per student), and fold the paper in half horizontally, so the flower and the fruit are on opposite sides.
  - Punch a hole in the top of paper, and run a long piece of yarn through the hole to create a necklace.
  - Consider laminating the cards for reuse from class to 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
LS1.C: Plant survival needs

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

Lesson Checklist

- ❑ Physical Activity
- ❑ Tasting
- ❑ Voting
- ❑ "Asking" Discussion
- ❑ Newsletters, Bingo cards, Stickers, Incentives
- ❑ 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: *6 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. *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: *12 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). *We're going to watch a short video of bees visiting flowers.* Play this 1-minute video: Bees in slow motion pollinating apple blossoms. *What are the bees doing as they visit these flowers? Getting food! Bees get two kinds of food from flowers:* ***nectar*** *and* ***pollen****.* Note new vocabulary words; write out and repeat. *Nectar is a sweet juice and pollen is a yellow powder. Bees have special structures called pollen bags on their back legs so they can collect pollen and bring it home. Bees need flowers! Let's watch the video again and observe the bees eating nectar and pollen.* Again, play and narrate this 1-minute video: Bees in slow motion pollinating apple blossoms (pause to show a picture of pollen).

Something important for the plant is also happening as the bee is eating nectar and pollen: ***pollination.*** Note vocabulary word. Write out and repeat with students. *When a bee visits a peach flower to eat, some of the pollen sticks to the bee's body. Looking for more food to eat, the bee carries the pollen to the next flower. Here, the pollen falls off the bee's body and onto the flower. Plants need pollination because pollination turns the flower into a fruit. Later today we will taste peaches, a fruit that grows thanks to bees pollinating the peach tree flowers. First, let's play a game to simulate (act out) the process of pollination.*

Pollination Demonstration

(Adapted from Science and Health Education Partnership Pollination lesson.)

- Have all students stand in a circle. Pass out flower-fruit necklaces (cards attached) to all but 8-9 students. Tell these students that they are the flowers. (Note: the flower side of their necklace should be facing forward, with a small sticky note attached to the center to represent pollen).

Explore (cont'd)

- The remaining 8-9 students will act as bees. Ask bees to enter the circle and say, *the bees have left their hive in search of food and they found a field of flowers!* As bees buzz around the center of the circle, play this "Bees Buzzing" sound effect. When the buzzing stops, bees will visit a flower.
- The flower will share their pollen (sticky note) with the bee (ask the bees to keep the sticky note stuck to their hand). *Now, the bees are carrying pollen to another flower.*
- Instruct bees to buzz around the center of the circle again. When the buzzing stops, they will choose another flower. *Now, these new flowers and the bees will share pollen* (flowers and bees trade pollen). *When this happens, the flower is pollinated and will become a fruit* (instruct students to turn over their necklace to show that they are now a fruit).
- Bees and flowers will continue to share pollen and flip their necklaces until all flowers are pollinated. The demonstration ends when all of the flowers have been pollinated and turned into fruits.

Facilitation Options:

- Option: have students say "*thank you for sharing bee/flower" to one another.*
- Once pollinated, ask students to sit to make it clear they are no longer flowers.
- If time allows, consider rotating bee and flower students.

Transition to tasting: Instruct students to deposit their necklaces in a specific location and pick-up a peach segment and napkin before returning to their desks.

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.

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: *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."

Optional song: Betty and the Turnips, "Little Bees" (1:21)

Reflect (cont'd)

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)
- *Whose class am I in?*
- *What food did we try today?* (Peaches)
- *What do flowers share with bees?* (Food - nectar and pollen)
- *How do bees help flowers?* (Pollination)

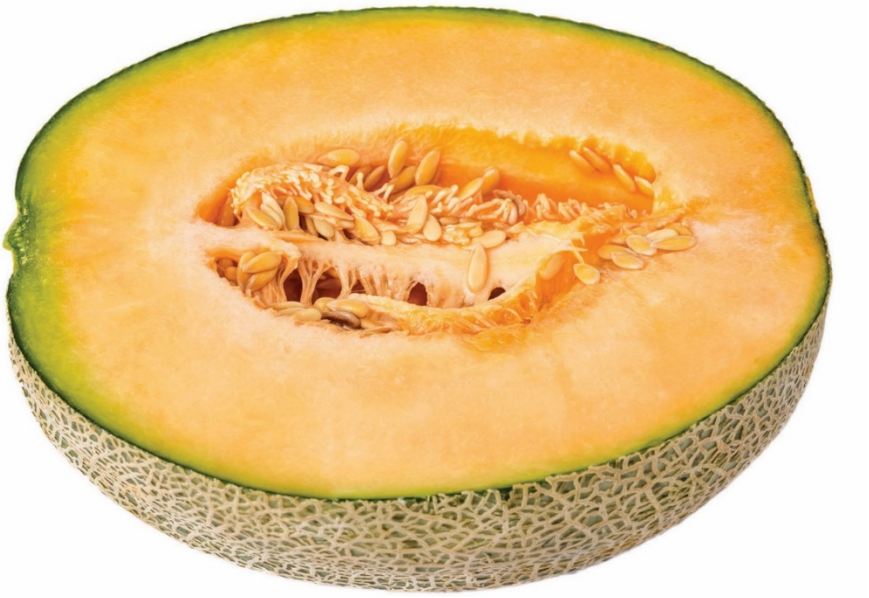
Asking Discussion:

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?*

*Leave newsletters, incentives, stickers, and BINGO sheets with the teachers to pass out.

CANTALOUPE



CRANBERRIES

MANGO

STRAWBERRY

PEAR

KIWI

PEACH

Additional Materials

Physical Activity

Bees communicate by movement. They shake their "bee-hinds" in a line and circle back to the start. This tells other bees where to find food. Lead students in a bee "waggle dance." Perform an exercise for 15 seconds each (e.g., flap your arms, jog in place, shake a leg, squat, touch elbow to knee, stretch on tiptoes, touch toes). Move around the room if space allows. (Educators, learn more about the waggle dance in video 1 or video 2.)

More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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.

Facts About Peaches

- The peach originated in China.
- The Latin name for peach means Persian plum, because Romans imported it from Persia (now Iran) 2000 years ago.
- The Spanish brought the peach to America. It became a favorite of the Native Americans.
- 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.
- The United States is the world's leading grower of peaches.
- Peaches can be fresh, frozen, dried or canned. Enjoy them plain for a snack or with a meal as well as in appetizers and entrees.

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://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://kidsgrowingstrong.org/pollinator-works/; https://www.youtube.com/watch?v=zy3r1zlC_IU
https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/
https://www.nrdc.org/sites/default/files/bee-deaths-FS.pdf
https://gardenatschool.wordpress.com/2012/06/16/pollination-games/

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Pick a better snack™

IDPH Iowa Department of Public Health

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 (optional: dressing)
- ❑ Napkins or paper plates
- ❑ Play Your Way One Hour A Day cards (attached)
- ❑ Optional book: "Our Community Garden"
- ❑ Optional planting activity: small cups, soil, spinach seeds, small cups for watering

Preparation

- ❑ 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 or garden plants (examples: kale, collards, spinach, maple, oak, lettuces, cabbage, herbs, etc.).

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, Bingo cards, Stickers, Incentives
- ❑ Science Connection: Plant survival needs (K) and function of leaves (1st)

Recommended Books

"Our Community Garden" by Barbara Pollak
"Muncha! Muncha! Muncha!" by Candace Fleming
"Sylvia's Spinach" by Katherine Pryor
"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 magic 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 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.*

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 students in a circle (opportunity for 3 deep breaths). Pass out an assortment of leaves to students, one per student. Leaves can be collected outside on trees or from the garden (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 they 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 over the 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).

Explore (cont'd)

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, or leave these materials for the classroom teacher to plant with students at a later time.

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.

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: *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."

Play Your Way One Hour A Day: *Playing gives us energy. Wouldn't it be fun to play every day this summer! Write and draw some of your favorite ways to play that you can do this summer.* Pass out "Play Your Way One Hour A Day" cards.

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)
- *Whose class am I in?*
- *What food did we try today?* (Spinach)
- *What plant part is spinach?* (A leaf)
- *What three things do leaves need to make energy for plants?* (Sunshine, water, air)

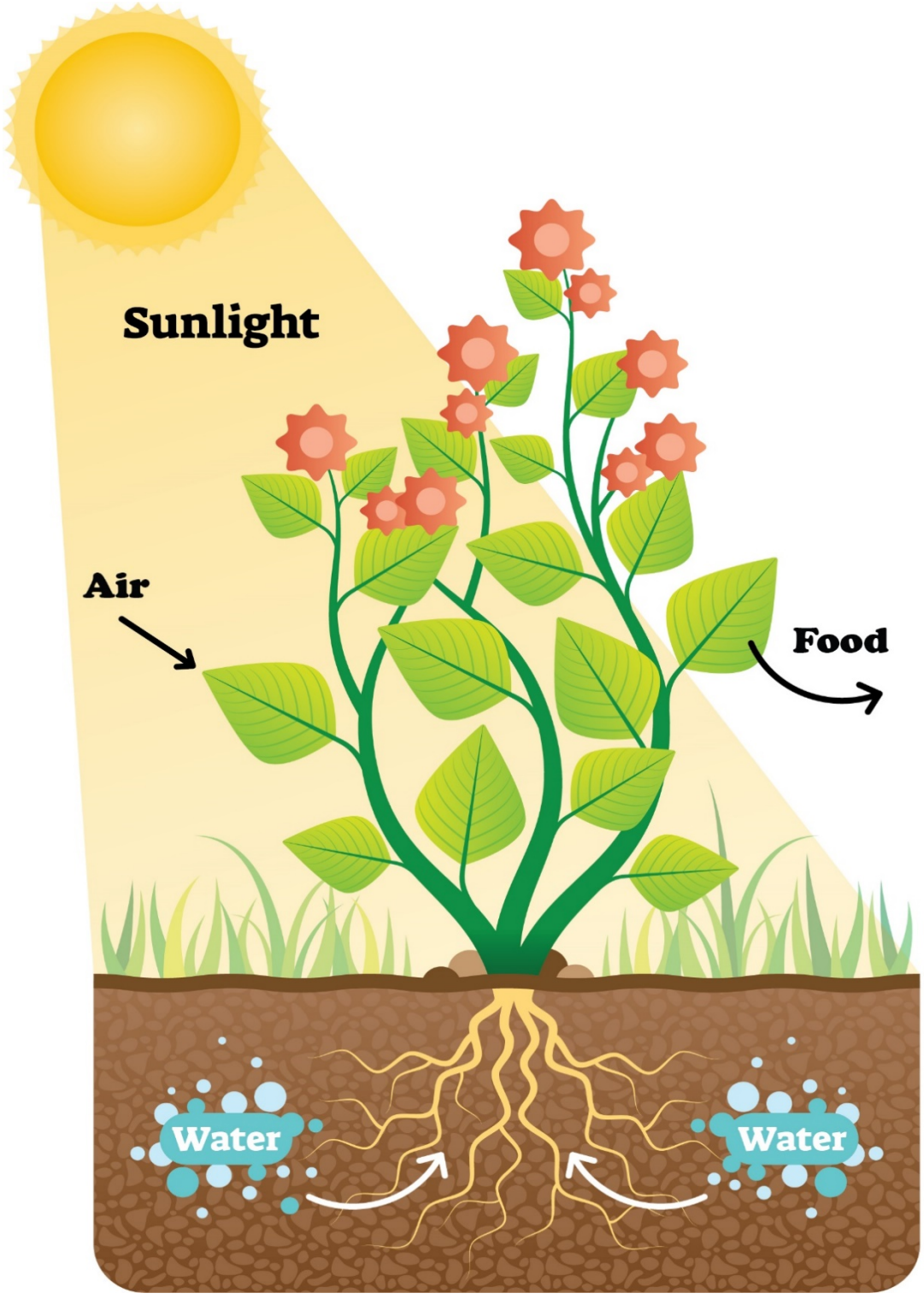
Asking Discussion:

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?*

*Leave newsletters, incentives, stickers, and BINGO sheets 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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Pick a **better** snack™ Lesson

Play Your Way One Hour A Day!

This summer, I will play:	Draw a picture of play!
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Additional Materials

Physical Activity

"Stories in Motion: Working in the Garden" (page 54). Or "Shakedown" (page 13). More ideas for physical activity are available at https://idph.iowa.gov/inn/play-your-way/brain-breaks.

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
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http://togethercounts.com/wp-content/uploads/2017/11/K-2_Curriculum_ALL-1.pdf
https://fns-prod.azureedge.net/sites/default/files/growit_book3.pdf

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