



Lesson 5: Leaves and Fun in the Sun

Lesson Objective

Students will ...

- Try (with at least one of four senses) a leafy green vegetable in the classroom.
- Report completing **Lesson 4** Food Adventurer mission of trying a stem vegetable at home or in the cafeteria.
- Try a leafy green vegetable in the cafeteria or at home after this lesson.

Lesson Overview

There are five activities for Lesson 5.

- 1. Food Adventurer, Mission Accomplished** (5 minutes)
Students will report on the new stem vegetable they tried as part of the Food Adventurer mission that was given to them in Lesson 4.
- 2. Stretch and Balance** (5 minutes)
Students will participate in a physical activity that reinforces healthy messages.
- 3. Plant Pantomime Party** (10 minutes)
Students will participate in a physical activity that reinforces the function of leaves on a plant.
- 4. Food Adventurer Adjectives - Crunchy Baked Kale Chips Recipe** (15 minutes)
Students will help make and will be offered an opportunity to try a healthy recipe.
- 5. Garden Options** (20 minutes)
Students will continue work on their mural or indoor/ outdoor garden. **Choose Activity 5A or 5B.**

What you will need

General Materials and Supplies

- Food Adventurer Mission Log (one per student).
- Pocket folders (optional, one per student) to collect additional student materials.
- Basic Educator Kit - Class/Garden/Food Prep (Appendix C)
- Food Adventurer Definition (Appendix A, page 1 of Mission Log)
- Fruit and Vegetable Flashcards (Appendix L)

Activity 1, Food Adventurer, Mission Accomplished

- Food Adventurer Mission 4 worksheet (page 13 of Mission Log)
- GHK Food Adventurer stickers - one per student (Appendix I)

Activity 2, Stretch and Balance

- MyPlate Garden Poster (Appendix E)

Activity 3, Plant Pantomime Party

- Plant Part Poster (Appendix D)

Activity 4, Food Adventurer Adjectives, Crunchy Baked Kale Chips Recipe

- Access to soap, sink and paper towels to wash hands or hand sanitizer
- Flip chart paper of Food Adventurer adjectives (from Lesson 1)
- Food Adventurer Adjectives worksheets - one per student (Appendix H, pages 3 – 6 of Mission Log)
- Crunchy Baked Kale Chips recipe sheets - one per student (Appendix N). Recipes may also be found on the Oregon State University Food Hero website (<https://www.foodhero.org>).
- Crunchy Baked Kale Chips ingredients (refer to recipe)
- Supplies for cooking Kale Chips

Activity 5A, Mural Garden Option—Adding the leaves

- Art supplies for adding elements to the garden mural

Activity 5B, Indoor or Outdoor Garden Options

- Flip chart paper or chalkboard space, with list of garden rules and seeds planted (from Lesson 1)
- GHK flash cards of vegetables and fruits whose seeds are planted
- Access to soap, sink and paper towels to wash hands
- Garden journal pages, pencils or pens, clip boards

Take Home Materials

- Food Hero Recipe (Kale Chips)

Supplementary Materials (as needed)

- Crayons, storybook, journal and/or coloring sheet

Preparation

Activity 1, Food Adventurer, Mission Accomplished

- None.

Activity 2, Stretch and Balance

- Hang MyPlate Garden Poster in the classroom.
- Discuss with the Classroom Teacher the appropriate volume for students to call out the names of vegetables and fruits, and recite MyPlate messages.

Activity 3, Plant Pantomime Party

- Hang Plant Part Poster in the classroom.

Activity 4, Food Adventurer Adjectives - Crunchy Baked Kale Chips Recipe

- Set up flip chart or arrange for space on the board to compile the list of Food Adventurer adjectives.
- Gather ingredients for the recipe. If available, gather kale from the garden.

- Prepare recipe for taste.
- Photocopy Food Adventurer Adjectives Worksheet

Activity 5A, Mural Garden Option - Adding the leaves

- Prepare mural garden activity.

Activity 5B, Indoor or Outdoor Garden Options

- Gather supplies needed.

Supplementary Activities (as needed)

- Talk to the Classroom Teacher about Lesson 5 supplementary activities.

Take Home Materials

- Food Hero Recipe (Kale Chips)

Teaching outline

Activity 1: Food Adventurer, Mission Accomplished

The last time we met, I gave all of you Food Adventurers a mission. Does anyone remember what your mission was?

Allow the students to raise hands and answer.

Your mission was to try a new stem vegetable. Remember, Food Adventurers can try new foods in many different ways. We can use our eyes to see, or our noses to smell. We can use our hands to touch, or we can use our mouths to taste.

Point to your eyes, nose, hands and mouth as you speak. Instruct students to turn to **page 13** of their Mission Logs and fill out the worksheet for **Mission 4**. Read each direction aloud, and have students fill in their answers. Call on students who have raised their hands.

- (Read) *Since the last lesson, did you try a new stem vegetable? What did you try?*
- (Follow-up) *Did you try it with your nose/eyes/hands/mouth? What did your eyes tell you? What did your nose tell you? How did it feel? How did it taste?*
- (Read) *Where did you try it? Was it at home, in the cafeteria or somewhere else?*
- *Did you like it? Would you try it again?*

Great job, Food Adventurers! Remember to be on the lookout for new stem vegetables in the cafeteria, or at home. Some of these foods will be new to some of you, like the (repeat names of foods that were new to the class). Some of these foods will be ones you really like, such as (repeat names of foods that the class liked). Some will be ones that you may not have liked in the past. Please wear this sticker to let everyone know that you tried a new food as part of your Food Adventurer mission.

Pass out GHK Food Adventurer stickers, and allow students to put them in Food Adventurer mission booklet or attach them to their shirts or sweaters.

Activity 2: Stretch and Balance

Today, we're going to begin class by stretching our bodies. Raise your hand if you've ever stretched your body. Can you demonstrate your favorite stretches?

Allow students to answer or demonstrate.

We're going to do the Growing Healthy Kids stretch. Our movements and stretches will remind us to eat healthy. Let's get started!

Have children stand up, with their hands at their sides.

Our first exercise is called the Food Adventurer! Stand up straight and tall. Raise your hands high over your head, like a Food Adventurer Hero. We're Food Adventurer Heroes, flying through the air in search of new vegetables and fruits to try. What new vegetables and fruits do you want to try?

Allow children to answer.

Let's turn right. Bend slightly at the waist and lean your arms to the right. Now let's turn left. Bend slightly at the waist and lean your arms to the left. Now let's fly back down to the ground to try some new root vegetables. What new root vegetables do you want to try?

Allow children to answer. If they can't think of any root vegetables, you can prompt them with 'carrots, parsnips, radishes, beets.' Repeat this exercise by having students reach high towards a fruit tree to try some new fruits, or to fly back down to the garden to harvest stem vegetables.

Great job Food Adventurers! Remember to be on the lookout for vegetables and fruits that you can eat for snacks and at mealtimes. Food Adventurers can complete missions at home, at school, or anywhere vegetables and fruits can be found.

Our second exercise is called the MyPlate Balance. What does MyPlate remind us to do?

Point to the MyPlate Garden Poster. Allow students to answer.

MyPlate is a picture that reminds us to eat healthy. The vegetables and fruits groups on MyPlate remind us to fill half of our plate with vegetables and fruits.

Point to the fruits, vegetables and grains groups on MyPlate.

This MyPlate picture reminds us to eat healthy foods. Balance on your right leg and say, "Fill half my plate with vegetables and fruits!" Balance on your left leg and say "60 minutes of play every day!"

Allow children to practice balancing on one leg, and then the other. Repeat 3 times, each time increase balancing interval by 5 seconds.

As children are balancing, have them repeat MyPlate messages as well as name different fruits, vegetables. You can add challenging elements to this exercise, if children are able, by having children lift their hands above their head as they balance, or by having them hop on one foot.

Great job! You've been Food Adventurer Heroes, searching for new vegetables and fruits to try. You've practiced your balance. You've named vegetables and fruits that you can eat for healthy snacks or meals. You've stretched and moved your bodies. You burned Energy Out, and named healthy choices for Energy In.

Activity 3: Plant Pantomime Party

Talk the students through a modified plant pantomime. Make sure students are at least arms-length apart before starting this exercise.

In an earlier GHK lesson, we came up with a fun way to remember the six plant parts. We used different parts of our body to represent the different parts of a plant.

Point to the Plant Part poster, and remind students about the different hand and body movements that they learned in Lesson 1 (Six Yummy Plant Parts), as a way to remember the different plant parts.

- **Roots** Wiggle your feet.
- **Stem** Move hand the length of the body to show skeleton
- **Leaves** Shake your hands out to the side.
- **Flower** Raise your arms above your head and point to hair
- **Fruit** Point to face
- **Seeds** Point to eyes

We are going to get some fun physical activity pretending we're leafy green vegetables! Stretch out your arms, and spread the fingers on your hands. Which leafy green vegetable are you going to be? Wiggle your hands and fingers if you would like to answer.

Call on students to answer.

Leaves need sunlight to make food for the rest of the plant. Keep your arms spread wide and out to your sides, so that you make a 'T' with your body and your arms. Rotate your hands, so that your palms face up. Wiggle your fingers to catch the sun. Once you catch the sun, rotate your hands, so that your palms are facing behind you.

Demonstrate, by rotating your arms at the shoulder, so that your palms face up and then behind you.

Turn your hands, so that your palms are facing up again.

Repeat three or four times, ending with students' palms facing up.

Air is an ingredient our leaves need to make food! I'm going to count to four. While I count to four, I want you to slowly take one big breath in. Then I'll count to four, and we'll all slowly breathe out. (Remind students not to blow air into each other's faces)

Demonstrate this breathing technique to students, and then recite a four-count for breaths in and a four-count for breaths out. Repeat two or three times.

Our leaves also need water and nutrients from the soil. Water and soil nutrients are other ingredients that leaves use to make food. Can you use your feet as roots to get water and nutrients from the soil? Stand up tall on your toes, then rock back on your heels, so that your feet are flat on the ground. Wiggle your toes to pull water and nutrients up and into your plant roots.

Demonstrate calf raises to students, and have them repeat this exercise three or four times.

Our plants need to stand strong, even when it's windy. Do you have a strong stem? Keep your arms out to your sides, and bend at the waist. Now bend to the other side. Stems must be strong, but flexible. You bend, but you don't break.

Demonstrate side bends to students, with arms spread out to your sides. Have students repeat this exercise three or four times.

Now we need to catch more sunlight to power our leaves. Turn your hands, so that your palms face up. Wiggle your fingers to catch the sun. Boy, it's starting to get warm! Turn your hands, so that your palms face behind you. This will keep our plants cool. We don't want to flower, just yet. Gardeners harvest leafy greens before they flower. This is when leafy greens taste best.

Demonstrate shoulder rotations before moving to the final exercise. In the final exercise, students can be 'harvested' or allowed to 'go to seed.' Students who are 'harvested' will be asked to name their favorite leafy green vegetable, and to pantomime leaves blowing in the wind. Students who 'go to seed' will be asked to shake out their hair, to plant more seeds in the garden.

I need to harvest some leafy greens to make a salad or to add to a sandwich. I will 'pick' some of you before you start to flower. Others, I'm going to let flower and make seeds. We'll use these seeds to plant more leafy greens in our garden. Who wants to be harvested now? Who wants to flower and make seeds?

Allow students to answer through pantomime. Circulate among the students, and 'harvest' those who want to be harvested. As you harvest, ask students to name the leafy green vegetable they were pretending to be.

For my leafy greens that are still growing in the garden! We're moving from cool, spring weather to warm, summer weather. Many leafy greens start to flower when the temperature gets too warm. Hold your head up tall, as you start to flower. The flowers of plants eventually turn

into seeds.

Point to your head (flower) and eyes and hold out your hair (seeds), as you speak.

Let's plant our seeds in our garden, so we can grow even more leafy green vegetables.

Bend at the waist, and use your hands to shake out your hair. At the end of the activity, students may sit back down.

Great job, everyone! Now, I have a few questions for you. Raise your hand if you would like to answer.

- *What was the energy that you used to power your leaves?(sunlight)*
- *What does a plant make in its leaves? (food for the rest of the plant)*
- *Was air an ingredient that your leaves used to make food? (yes)*
- *Can you name one more ingredient that you used? (water or nutrients from the soil)*
- *When do leafy green vegetables start to flower in the garden? (when it gets warm)*
- *Where do the seeds of a leafy green vegetable come from? (the flowers)*

Plants, including leafy green vegetables, grow because of energy they get from the sun. Leafy green vegetables also need soil nutrients, air and water to grow. In our garden, we can easily grow leafy greens and other vegetables. We just need to make sure: to choose a sunny spot for our garden; to plant our vegetables in good soil that have the nutrients our vegetables need; and water our vegetable plants regularly.

Even if you don't have a garden at home, you can grow leafy green vegetables in pots. You can place the pots in a sunny window in the winter or on a porch or patio in the summer.

Activity 4: Food Adventurer Adjectives - Crunchy Baked Kale Chips Recipe

Pass out Food Adventurer Adjective worksheets (Appendix H).

We're going to be Food Adventurers, and try a healthy snack made from kale. Kale is a leafy green vegetable. Eating leafy greens, like kale, is a great way to vary our veggies. This kale has been baked into a crunchy veggie chip. The kale was lightly coated in olive oil and sprinkled with seasoned salt.

If necessary, remind students about proper hand washing technique (Appendix B).

But first, before handling, preparing or eating food, we need to wash our hands! We want to make sure that we keep our hands clean. This will help to keep us healthy.

Remind students of their Food Adventurer mission. Refer back to Lesson 1, Activity 2, for the full script of spoken prompts and directions associated with a Food Adventurer Adjectives recipe activity.

Remember, Food Adventurers try new fruits or vegetables with one or more of their senses. You can try the chips with your eyes, your fingers, your nose or your mouth.

Activity 5A: Mural Garden Option - Adding the leaves and flowers

Review all that has gone on the mural garden so far. If students are creating individual murals, this may be a good time for students to make sure all elements up to this point have been included (see Appendix S) for mural additions lesson by lesson.

In the last few weeks, students prepared the garden, planted seeds in the mural and added the roots and stems of their growing plants. Students also added the soil and sun, sources of water, and examples of physical activity. Today, ask students to add the leaves and flowers to the garden. You can remind them that leaves are where plants make food and flowers make seeds; we can eat both. You can give students leeway to add the leaves as they like, but may direct students to add the leaves so that they come out from the stem.

Have students use garden journal sheets to draw a plant with all 6 plant parts and label each part. Have students answer the question with complete sentences, “How do leaves get energy in?”

Activity 5B: Indoor or Outdoor Garden Options

The last time we met, we checked on our garden plants. Can anyone remember the name of a veggie plant growing in our garden? We also recorded what we observed about our plants (by drawing or writing) in our garden journal. Would anyone like to share something they wrote or drew in their garden journal?

Allow students to respond, and share what they last recorded in their garden journal.

Today we're going to check on our garden plants. Before we go out into the garden (or go to the indoor garden), who can tell me our garden rules?

Call on students, referring to the list of garden rules that were developed in Lesson 1. These rules may be written on the board, or displayed on a piece of paper which is hanging on a wall.

Choose one or more of the options listed below.

- **Harvest:** If there are leafy green vegetables near maturity in an established indoor or outdoor garden, you can have students harvest, wash and taste the leafy greens. If students are washing and tasting the leafy greens, make sure that they practice good hand washing technique when handling and tasting food. If available show plants that are producing seeds.
- **Garden Journal:** If students are keeping a garden journal, you can have them measure the height of the plants that they sowed from seeds, or draw their observations. If they have measured their plants in the past, they can compare this week's observations with those of previous weeks.

Another option is to have students draw vegetables in the garden, and note how they look similar to or different from the same vegetables as they might remember them from home or the grocery store. Use the GHK flash cards as needed.

Closure

Today we learned about leafy green vegetables. Spinach, lettuce, kale and chard are all leafy green vegetables that are part of a healthy and balanced diet. We can harvest leafy green vegetables when they're young (for baby greens or baby spinach), or when they get bigger. If we let our leafy greens grow too long, they may flower and make seeds. We might even see this happen in our garden. The next time we are together we will learn more about fruits that we eat.

Food Adventurers - I have a mission for you to complete! Your mission is to try a leafy green vegetable. This mission can be completed in the cafeteria or at home. Remember, you can try it with your eyes, your hands, your nose—and maybe even with your mouth. Food Adventurers - do you accept this mission? If so, shout out YES!

Allow students to answer.

Wonderful! I can't wait to hear how your missions went, the next time we meet. Make sure to share what you did today with your family.



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Supplementary activities

These activities are for the Classroom Teacher to do with the students before you return for the next lesson.

- **Supplementary Activity 1 - Storybook and Discussion and Journal** - Read the storybook to children and then lead a discussion on key points that connect the book to GHK messages and activities. Sample discussion questions can be found below. Children then write or color about what they learned on a journal sheet. Journal sheets will be collected and will be compiled into a book after the final lesson.

Storybook Option: *The Cabbage Soup Solution*, by Erika Oller

- **Supplementary Activity 2 - Coloring Sheets** - Discuss Lesson 5 coloring sheet message and caricature drawing, and how it is connected to the messages and activities in Lesson 5. Allow children to color the sheet. Allow children to display their colored sheets on their desks/tables and invite them to walk around to see others' art. Coloring sheets will be collected and will be compiled into a book after the final lesson.

Supplementary Storybook Activity: Sample Discussion Questions and Journal Sheet Ideas *The Cabbage Soup Solution*, by Erika Oller

Discussion Questions

- *What edible/eatable plant part did Elsie grow?* (cabbage - leaves)
- *What did Elsie cook from her edible/eatable plant part?* (soup)
- *Turn to the page with many veggies on the doorstep. How many colors of veggies do you see?* (four – brown, red, green, orange. This is an example of VARIETY!)
- *Did Elsie get any physical activity in the book?* (planting, picking and loading her truck with cabbages)
- *Is Elsie a Food Adventurer? Why?*

Journal Sheet Idea

- Draw a picture of a cabbage from Elsie's garden. If appropriate, students can label what edible/eatable plant part it is.