LESSON SUMMARY

The purpose of this lesson is for students to explore the differences between winter and spring gardens and the food they produce. Students will observe the size, shape, color and weight of winter vegetables. Students will plant spring seeds and seedlings for the school garden, and use seed catalogs to plan a spring garden.

Objective: At the end of the lesson, students will be able to discuss some of the differences between the Winter and Spring gardens.

BIG IDEA

We eat different vegetables from the garden in winter and spring.

GUIDING QUESTIONS

What are the differences between winter and spring gardens?
Why is it important for gardeners and farmers to plan ahead?

TIME

Each lesson can be taught in a 90-120-minute block or divided into multiple shorter lessons using small group activities from the Explore section.

DC EARLY LEARNING STANDARDS

Approaches to Learning/ Logic and Reasoning
1. Attends and engages with curiosity
2. Shows persistence
3. Approaches tasks flexibly

Communication and Language
6. Uses language to express self

Social and Emotional Development
29. Expresses a variety of feelings and learns to manage them
31. Manages own behavior
32. Develops positive relationships with adults
33. Engages and plays with peers
MATERIALS LIST

1. Copy of Sophie’s Squash
2. Sample winter vegetables for Engage/Explore.
3. Seasonality Chart
4. Scale and rulers for exploring vegetables
5. Journals or paper and drawing implements
6. Winter Squash and dramatic play items, baby wipes and washable markers
7. Seed tape materials, if applicable (see end of lesson for instructions including materials)
8. Seed catalogs
9. Recipe ingredients and materials

CONNECTED TEXTS

Sophie’s Squash by Pat Zietlow Miller

RECIPES

Winter Recipes:
- Sweet Potato Quesadillas
- Butternut Squash Soup
- Roasted Butternut Squash
- Sweet Potato Biscuits

Spring Recipes:
- Spinach Salad
- Simple Seedy Slaw

All FoodPrints recipes available here: freshfarm.org/recipes

VOCABULARY

seasons: One of four different times of the year characterized by different weather and daylight hours.
winter: The season of the year with the shortest number of daylight hours and coldest weather.
spring: The season of the year during which the weather warms and plants begin growing.
summer: The hottest season of the year; gardens are full of produce.
fall: The weather is getting cooler and the leaves are falling; gardens still have produce.

To learn more about the FoodPrints program and download the entire curriculum, visit freshfarm.org/foodprints

DC EARLY LEARNING STANDARDS

Literacy
10. Demonstrates comprehension of printed materials read aloud

Math
15. Demonstrates knowledge of number and counting

Science and Engineering
19. Investigates living things
20. Investigates physical objects

Physical Development, Health and Safety
37. Demonstrates behaviors that promote health and safety
38. Demonstrates competent eating behaviors through the maintenance of positive eating attitudes, optimal food acceptance skills, self-regulation of food intake, mindful food choices and positive body image

The Arts
28. Explores the visual arts

DC Environmental Literacy Framework
The World Around Us: How can we use our five senses to learn about the environment?
**ENGAGE**

The goal of this portion of the lesson is to engage students in learning by tapping into prior knowledge and experiences, piquing their interest and building curiosity. Use this time to guide students through thinking about the Big Idea and Guiding Questions.

- Welcome students to FoodPrints classroom. Share that it is an exciting time for the garden because the weather is beginning to get warmer and we are getting excited about what we will be planting. We will be saying goodbye to many of the vegetables we eat during the winter and hello to everything we will plant and look forward to eating in the spring and summer.
- If convenient, you can walk with your students to the garden. Otherwise, show them a photo of the winter garden or ask them to remember what the garden looks like this time of year.
- Place examples of winter vegetables (list attached) in the center of the circle.
- Ask students to name the different vegetables -- potatoes, carrots, beets, apples, and squash -- and ask if they can think of what they have in common. Explain that we have these vegetables at the end of winter because they can be stored for a long time. Most of these fruits and vegetables are the roots or the fruits of the plant, and have a hard outside and less water inside, which helps keep them from rotting.
- Ask students to say Goodbye to these vegetables. You can pick up each vegetable, name it and ask students to say good-bye to each of the vegetables you name. Explain that now it is time for spring and for new vegetables to grow.
- Ask students what spring vegetables they would like to say hello to. Take turns saying hello to broccoli, kale, spinach, etc. March is time for gardeners and farmers to plan and begin to plant! Read the book Sophie’s Squash. Ask students to point out seasonal changes.
**EXPLORE**

In this section, students work as a class or in small groups to explore the guiding questions through hands-on and minds-on investigations, along with experiences in the garden and kitchen. The adult leading each small group acts as a facilitator to assist students in coming to their own understanding. Please choose from the activities below that fit best with your students, class time, and learning goals.

1. **Classroom - Math/Science: Explore Winter Vegetables.** Students can explore a variety of winter vegetables, including winter squash, carrots, beets, winter radishes, sweet potatoes, turnips and apples (see attached list for more options). They can sort and organize the vegetables in a number of different ways: by size, by weight, with or without roots, etc. Although PreK students will not use these tools accurately, they can experiment with rulers and a scale. If there is time, have students draw pictures of the produce in their journals.

![Winter Vegetables](image)

2. **Classroom - ELA: Dramatic Play.** Have an assortment of winter squash available for handling (especially useful is butternut squash). Students can draw faces on the squash (using washable markers), dress or wrap the squash in blankets (dish towels, scraps of cloth, or little blankets all work well), and use boxes or bins as beds or cradles. Students can act out the story of Sophie’s Squash as well as create their own stories using the squash babies they create. At the end of this activity, have students give their squash babies a bath using a wipe. This will wash off the drawings they have done and leave the squash ready for the next group to use them. If you would like, you can also bury an entire squash in the garden as a class, just like Sophie does.

![Dramatic Play](image)
3. Classroom - Science/Art: Planning a Garden. Students look through seed catalogs to plan which fruits and vegetables they would like to grow in their school garden. Students may either cut and paste pictures from the catalogs, or draw the pictures they find in their journals or on the worksheet included at the end of this lesson. Focus on plants that grow in our region. You can find a useful list of local foods organized by months attached and also in the FRESHFARM Seasonality Chart.

4. Classroom/Garden - Science/Math: Seed Tape. Students begin spring planting, either indoors or outdoors, depending on the weather. Ask students to count out seeds, and (with the help of an adult) to plant them with accurate spacing according to the seed package instructions. One way to do this is to have students make seed tape. (Seed tape instructions are attached to this lesson.) The chart below highlights seeds to start growing in the DC region in March. Review the DC School Garden Planting Calendar for more information.

5. Classroom: Cooking. Prepare a recipe that uses using winter vegetable and remind students that these are the vegetables we are saying ‘good-bye’ to until next year. You may want to choose a recipe using butternut squash to connect to the book and dramatic play activity. You can also make a recipe highlighting early spring vegetables and explain the differences between the types of vegetables that we eat in winter and spring.

MARCH PLANTING

<table>
<thead>
<tr>
<th>Start seeds indoors</th>
<th>Start seeds in ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>head lettuce, spinach, chard</td>
<td>peas, leaf lettuce, mesclun mix, radishes, beets, potatoes</td>
</tr>
</tbody>
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Pre-K | Lesson 7 | Goodbye Winter, Hello Spring
EVALUATE AND CLOSE

The closing of the lesson is a time for students to reflect and synthesize what they learned, and to share the food you have prepared together. Below are two ways to help students share and evaluate their learning at the end of each session.

1. **Reflect and Share:** As a group, revisit the Big Idea and Guiding questions introduced at the beginning of the lesson. Help students articulate how their understanding of these concepts has grown or changed, what questions they still have and how they could continue to learn more.

   Suggested ways to **reflect and share**:
   - Students share names of winter vegetables
   - Students share spring vegetables for their garden plan

2. **Eat and Appreciate:** Eating the food you have prepared together and taking time to appreciate the food is an important part of the FoodPrints experience.

   Suggested ways to **eat and appreciate**:
   - Assure students who are hesitant to taste new foods that they are not required to eat.
   - At the same time, explain that tasting new foods is the only way to find out if your taste buds are maturing and beginning to welcome new flavors!
   - Ask that everyone takes the first bite together and remind them that it is OK if their taste buds aren’t ready for these flavors yet.
   - Take time to appreciate and recognize all the different people and natural resources involved in growing, harvesting, transporting, buying and preparing the ingredients you are eating.
   - Ask students to thank their classmates for helping to prepare the food and work as a team.
   - Encourage students who are enjoying the taste of the food to express what they like and why.

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**BIG IDEA**

We eat different vegetables from the garden in winter and spring.

**GUIDING QUESTIONS**

What are the differences between winter and spring gardens?
Why is it important for gardeners and farmers to plan ahead?
FOODPRINTS: DIY Seed Tape

Making your own seed tape is simple to do with supplies you already have at home, and makes it SO much easier to plant small seeds like carrots, radishes and lettuce. With seed tape you can actually have properly spaced carrots and radishes that don’t require hours of tricky thinning after the seeds germinate.

**Materials:**
- toilet paper
- ruler
- Elmer’s glue or make a paste by mixing flour with water
- seeds

**Instructions:**
1. Lay the toilet paper out on a table in any length you feel comfortable working with. Place a ruler or yardstick on top of it.
2. Select the seeds you would like to use and read the packet to determine how far apart the seeds should be spaced. Place tiny dots of glue or flour/water paste at the appropriate intervals. (For example, carrot seeds should be spaced one inch apart.)
3. Use a damp or slightly sticky/gluey finger or toothpick to pick up and place one or two seeds on each dot of glue.
4. When you finish the whole strip of toilet paper, fold it in half and press down so the glue makes it stick together. Write the name of the seeds you used on the toilet paper.
5. Hang the strips over the back of a chair to dry, and then stack them up and store in a plastic bag with the seed packet until you are ready to plant.
6. To plant, read the directions on the seed packet to find out how to properly space the rows and at what depth the seeds should be sown.
7. Water, wait and enjoy your plants!