

Spring Sprouts

Grade Level: Adaptable for 2-5

Total Lesson Time: 45 minutes



Lesson Overview

Growing food, whether in a garden or in a classroom, is a great way to encourage an interest in healthy local foods. When children nurture a plant from seed to food they become intimately connected to the process we depend on to eat and live. This encourages them to ask questions and take interest in where food comes from and how it is grown. If you have a school garden you may choose to start plants from seed in the classroom for transplant. You can also grow sprouts, as we did in this lesson, for students to harvest and eat. Radish sprouts are quick and easy to grow in a sunny window. They are nutritious and have a fresh spicy flavor that is great on a sandwich, a salad, or on their own. We did not tell students what kind of sprouts they'd be growing. We chose to leave it a mystery and let students to their best to figure it out. In this lesson, students review plant development, plant radish seeds to grow in the classroom, sing a sprout song, and enjoy a healthy seasonal snack.

Objectives

Students will:

1. Participate effectively in class discussion (Language Arts C.4.3)
2. Comprehend and follow step-by-step instructions for planting seeds (Language Arts C.4.2)
3. Communicate their knowledge and understanding of plant development and conditions in which they grow (Science F.4.1, F.4.2, F.4.3, F.4.4, Environmental Education A.4.4)

Materials

Food

Kohlrabi, spinach, or other seasonal foods

Supplies

Napkins for snack
Clear plastic cups
Potting soil
Radish seeds
Large bucket
Plastic flats to hold cups and catch excess water
Watering can or bottles
Extra cups with holes in the bottom
Markers to write names on cups
Six Plant Part Diagram

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Preparation

1. Collect materials.
2. Prep veggies. Kohlrabi needs to be peeled and cut into sticks. Spinach may need to be washed.
3. Puncture bottom of clear plastic cups with small holes for soil drainage.

Procedure

Introduction - Spring Garden Visualization

When we teach in the classroom we often ask students to use their memories and imaginations to put themselves in a garden when we can't physically be there. In this first lesson of our spring series we begin by asking students to close their eyes and silently visualize a garden in spring. What do they see? Smell? Feel? Hear? Taste? What is happening in a garden at this time of year? Use some of these questions to encourage active imagining.

Students open their eyes and share their experience in the garden they just visited.

Review of Plant Growth and Development

Start with the question, "What does a plant sprout from?" There are various correct answers to this question, such as soil, or a pot, or a garden, but we are looking for seed.

Using the attached Six Plant Part Diagram, review the growth and development of a plant. You just determined that it starts as a seed. Which plant part first emerges from the seed? *The root.* What is next? *The stem.* Then the leaves grow, followed by the flower, which sometimes develops into a fruit and the fruit contains new seeds. It's a seed-to-seed cycle. The Six Plant Part Diagram is also used in Unit 2 in the Journey of a Seed Lesson. Hand out individual copies for students to fill in as they lead you through the process of plant growth, or project one for the whole class depending on what is appropriate for your students.

Seed Planting

Holding a tiny radish seed between your fingers, ask students to guess what you are holding. Tell them it is a "Mystery Seed." Ask how you might be able to figure out what kind of seed it is. By planting and growing it of course.

Hand out the clear plastic cups that students will use as pots for growing their sprouts. We use plastic cups so students can see the roots growing down into the soil. Have students write their names directly on the cups with permanent markers or stick labels to the cups and write their names on the labels.

Put potting soil into a large bucket and add water to the soil. Mix the water into the soil to moisten it thoroughly before planting. Pre-moistening the soil means that the seeds don't have to be heavily watered and potentially disturbed right after planting.

Have students come to the bucket and fill their cup with soil. Level it off and press the soil down lightly. You don't want the soil to be heavily compacted or too loose. Pressing it down about a half an inch should be adequate.

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Procedure Continued

Once back at their desk, provide step-by-step instructions for planting the seeds. We wrote and illustrated the instructions on the board.

1) Make 6 to 8 holes in the soil about a ½ inch deep. Make some of these holes close to the side of the cup so you can see your seeds sprout and grow roots down into the soil.

2) Put two or three seeds in each hole.

3) Move some soil back over the holes to cover the seeds.

4) Ask students to remind you what plants need to grow. *Sun, soil, water, air, and love.* List these things on the board. Students' seeds have soil, water, air, and some love, but what do they still need. *Sun.* Where should students put their seeds? *In the window.* Place the potted seeds in a "flat" or a shallow plastic tray that will hold excess water that leaks out of the bottom of the cups.

5) The seeds will also need a bit more water. We used the "gentle rain technique." Hold a cup with holes in the bottom over your planted seeds. Pour some water in the cup and let it trickle through the holes onto your soil and seeds like gentle rain. Do this once a day or every other day. Just enough to keep the soil moist. The seeds won't sprout if they are too wet or too dry.

6) Students should wash their hands.

The sprouts take a couple weeks to grow big enough to harvest and eat. We include the harvesting and eating of the sprouts in a subsequent lesson.

Song

Green Leafy Sprout (adapted from Banana Slug Song by Kevin Beals, lyrics by Nathan Larson), sung to the tune of "Twist and Shout."

You know I love my sprout (love my sprout!)
Love the way that she grows (the way that she grows!)
She's so tall and green (so tall and green!)
She always strikes a pose (strikes a pose!)

Gre-e-e-n Le-e-e-afy-y-y Sprout! Sprout! Sprout! Sprout!
Green Leafy Sprout!
Green Leafy Sprout!
Green Leafy Sprout!
Green Leafy Sprout!

Snack

We taught this lesson very early in spring when there were few newly harvested fruits and vegetables in Wisconsin. However, we were fortunate to know a farmer that keeps kohlrabi all winter from the previous fall's harvest. It keeps very well and was still fresh and delicious. We served kohlrabi sticks with freshly picked spring spinach.

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Six Plant Parts We Eat

Label the diagram using the following choices:

roots

flower

stem

seeds

leaf

fruit

