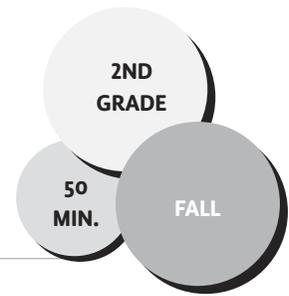


Plant a Rainbow

THEME: GROWING AND ACCESSING HEALTHY FOOD



ESSENTIAL QUESTION

Why are the foods we eat and the diversity in our garden important?

LEARNING OBJECTIVE

✓ Students will be able to sow and transplant crops.

CONCEPTS

healthy nutrients tool safety
variety vitamins

Engaging the Classroom Teacher

- Before the lesson, discuss what the final product of the lesson will look like (the rainbow spectrum), and ask the teacher whether there is space on a classroom bulletin board, in the hallway, or in the cafeteria where it can be displayed.
- During Action Step 4, ask the teacher to supervise the class as they're making the collage while you call up groups of students to plant.

LESSON DESCRIPTION

In this lesson, students hunt for the full spectrum of colors in the garden, create a fruit and veggie rainbow collage, and plant (in color groups) a rainbow garden bed to overwinter. Split the lesson into two sessions: do the rainbow hunt one day and the collage and planting the next, if needed. This lesson is designed to be taught in conjunction with lessons Eat a Rainbow and Rainbow at the Salad Bar.

MATERIALS

- Colored chalk
- Dot stickers of each rainbow color (optional)
- Paint sample color strips (such as those found in a hardware store that sells paint), one for each student, with an equal distribution of red, orange, yellow, green, blue, and purple
- Basket or bucket to hold paint chips (for random selection)
- Butcher paper
- Black permanent marker
- Gardening magazines/seed catalogs
- Glue
- Scissors
- Plant markers
- Seeds or transplants to represent each color
- Pictures of each of the plants, fully grown (optional)
- 5 garden trowels
- 5 watering cans
- Hose (to refill watering cans)

RAINBOW CROP SAMPLES

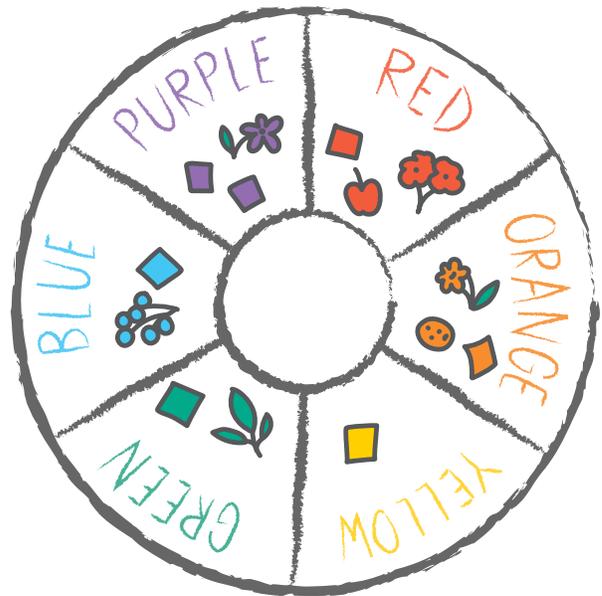
- **Red:** ruby red chard, red beets
- **Orange:** carrots, orange calendula flowers
- **Yellow:** golden beets, yellow calendula flowers
- **Green:** lettuce, cabbage, broccoli, kale, peas
- **Blue/Purple:** purple kohlrabi, borage flowers

PREPARATION

- › Acquire paint samples from the hardware store.
- › Consult a local planting guide for your region, and determine what you'll be planting. In the fall, they'll either need a quick germination and maturity rate or be overwintering. Also, be sure your plants have similar growing requirements because they'll be planted close together.
- › Scout out a location in your garden to make your rainbow bed. You might want to pre-divide a raised bed into six sections, so it's a spectrum, or you might choose to make a rainbow arc. Either way, use labeled plant markers to make it clear to students where certain colors are meant to go.
- › Set up a station within sight of the garden bed in which students will work on a collage. If you have a shade structure, you might consider having students make their collage there.
- › Prepare a large piece of butcher paper with the outline of a rainbow in which students will create their collage during the lesson. Write the name of the color in each arc, using that same colored marker, so students will know which color images should go where.
- › Using chalk, draw a rainbow spectrum in a circle outside on the pavement where you will gather your class. If you don't have any paved space, make a sign for each color to set out on the ground. This is how you'll ultimately divide students into groups.

ACTION STEPS

1. Rainbow Hunt: Gather students in a circle and explain, *Today we'll be planting a rainbow in the garden, but first we're going to see how many different colors of the rainbow we can find already in our garden.* Show students your array of paint samples, and explain that each student will pick one at random and then try to find an exact match of that color from a plant in the garden. Demonstrate how to use two hands to pick the leaf, flower, or fruit that they find, and remind them to either ask before picking, or set a rule that they can only pick if there are least ten others growing. Share the callback strategy you'll use, and remind students to stay where you can see them. Have each student pick one paint sample at random, and let them know they'll have five minutes to hunt for a color match and bring it back to the circle. **(10 min.)**



2. Sharing: Call students back together, and have them place their plant on top of their paint sample in the space with their color on the ground. Once they're standing with their color group, explain, *This will be your group for the rest of the activity.* You might want to pass out dot stickers with their colors so students remember throughout the lesson, and you can easily keep track of who's in each group. Have students rotate clockwise around the circle to observe and admire each of the plant and paint sample matches their fellow classmates found. Ask, *What does this tell us about our garden?* **(10 min.)**

3. Explain the Activity: Say, *When we eat all different kinds and colors of fruits and vegetables, it's really good for us. It's a way to make sure we're getting all the different vitamins we need. It's also really good for our garden if we plant a variety of vegetables.* Show students the seeds or transplants you've brought for them to plant. If the colors are not obvious, display or pass around pictures of the fully mature plants so they can see the full spectrum of color. Then be sure to review tool safety. **(5 min.)**

4. Making a Rainbow Collage: Explain that each group will take a turn to come up and plant, but while they're waiting for their turn, they'll be creating a rainbow collage of fruits and veggies. Show students the butcher paper you've prepared for their collage. Have students work on the collage according to their color group. Give students the option of drawing and writing the names of fruits and vegetables as well. **(30 min.)**

5. Planting by Color: Call up students by color. Demonstrate how to transplant the starts or sow the seeds that the group will be planting.

Remind students to stay in the designated spot for their color and to be mindful of newly planted seeds and starts. Have students water their seed or plant and then send them back to work on the collage. Once all groups have gone, gather them back for a closing circle.

(5 min. for each group)

REFLECTION

Have students discuss the following questions in small groups, then share with the class: **(5 min.)**

Social and emotional learning

- Ask yourself: How did I stay safe when using tools and planting in the garden?
- Ask yourself: How well did I work with the classmates in my group today?

Check for understanding

- What vegetables did we plant in our garden today?
- Why is it important to have a rainbow of colors in our garden? How about in our diets?
- Which vegetables or flowers are you most excited to harvest?

ADAPTATIONS

Literacy Extension: Read *Planting a Rainbow* by Lois Ehlert, and have students create their own book about the plants they planted in the activity.

Tasting Extension: Make a rainbow salad from plants you can currently harvest in the garden, supplementing with other fruits and vegetables to complete the spectrum, if necessary. See lessons Rainbow Smoothie and Rainbow Grain Salad for other colorful recipe suggestions!

ACADEMIC CONNECTIONS

Next Generation Science Standards, Life

Science Disciplinary Core Idea

NGSS.LS4.D

Biodiversity and Humans

There are many different kinds of living things in any area, and they exist in different places on land and in water.