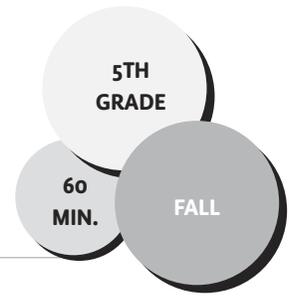


Seasonal Food Wheels

THEME: GROWING AND ACCESSING HEALTHY FOOD



ESSENTIAL QUESTION

How do we determine what and when to plant?

LEARNING OBJECTIVES

- ✓ Students will be able to interpret information from seed packets and growing guides.
- ✓ Students will be able to synthesize information to determine what can be harvested in their region each season.

CONCEPTS

harvest optimal soil temperature
seasonal six plant parts USDA zones

Engaging the Classroom Teacher

- During Action Steps 2 and 4, suggest that the teacher ensure students are moving safely and responsibly through the space and support students in finding their sorting group.
- During Action Step 6, suggest that the teacher support students in creating their Seasonal Food Wheels, helping them correctly interpret the information from seed catalogs or packets.

LESSON DESCRIPTION

In this lesson, students sort seed packets according to plant parts and growing season and learn which fruits and vegetables are in season in their region. They then create their own Seasonal Food Wheel to inform when to harvest food plants grown in their USDA zone.

MATERIALS

■ A collection of seed packets or printed copies of seed packets, including at least two examples of each plant part; suggested list:

- Roots—radishes, carrots, beets, etc.
- Stems—celery, swiss chard, chives, asparagus, etc.
- Leaves—spinach, lettuce, arugula, collards, etc.
- Flowers—borage, nasturtium, broccoli, cauliflower, calendula, etc.
- Fruits—melons, tomatoes, eggplant, cucumbers, etc.
- Seeds—sunflowers, poppies, pumpkins, beans, etc.

For each student:

- Reading a Seed Packet Worksheet (p. 531)
- Thick paper
- Seasonal Food Wheel Template (p. 530)
- Brass fastener (for fastening spinning arrow)
- For each group of 4–6 students:
 - Scissors
 - Glue

PREPARATION

- › Compile resources such as local planting charts and seed catalogs for students to use when making their wheels.
- › Create a model Seasonal Food Wheel to share with students.
- › Photocopy a Reading a Seed Packet Worksheet for each student.
- › Prepare a full-year calendar to project or a photocopy to pass out.

ACTION STEPS

1. Engage: Gather students in a circle and say, *Today we're going to think about the different fruits and vegetables that grow each season in our area. Ask, What is growing and being harvested right now?* Have students turn and talk to their neighbor for a minute and then share with the class. **(5 min.)**

2. Sorting Seed Packets by Plant Part: Hand out a seed packet to each student, and explain that when you give the signal, they're going to get up and group themselves according to which part of the plant we grow that crop for: roots, stems, leaves, flowers, fruits, or seeds. *For example, we grow carrots for the roots.* You can designate parts of the room to be meeting spots to add a bit of structure, or let students communicate and problem-solve on their own for more of a team-building activity. Once they are sorted, call on students to share what plant they are and what part of the plant their team represents. Once you've shared at least one from each group, have students sit down. **(10 min.)**

3. Seed Packet Reading: Project and pass out Reading a Seed Packet Worksheets, and read the packet together as a class. Briefly go over the information they can find on the packet, such as planting time, optimal soil temperatures, and harvest date. Share with students your local USDA zone and average first and last day of frost temperatures for packets that rely on knowing that information. Project or hand out a full-year calendar for students to reference. As a class, determine in which season the sample seed would be grown, in which season it would be harvested, and then have students figure out the same for their own seed packets. **(10 min.)**

4. Seed Packet Harvesting Sort: Have students sort themselves again by plant parts. Once they're grouped, ask them to now sort themselves by the season in which they can be harvested. You can designate one corner of the room for each season. Go season by season, and ask a couple students to share what fruit or vegetable they are. Ask students, *Do you see any familiar faces from your plant part group in your season group?* Help students make a connection between the life cycle of a plant and the weather. Say, *Fruiting crops like melon and tomatoes need long periods of warm soil and high temperatures to produce fruit, but roots and leaves like carrots and spinach grow best in cooler temperatures.* **(10 min.)**

5. Explain the Activity: Tell students they're now going to make a seasonal food wheel, divided into the four seasons and depicting the crops that are harvested during that season. Show them your model, and show them the resources they'll use to create their own. Explain that they can cut out pictures from the

seed catalogs, or they can draw. **(5 min.)**

6. Make Seasonal Food Wheels: Pass out art materials and resources, then circulate through the room, providing guidance and asking probing questions to check for understanding. Give students the option of cutting out an arrow and fastening it in the center to point at the current season. Then clean up before discussing reflection questions. **(15 min.)**

REFLECTION

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

Social and emotional learning

- *What was challenging about sorting yourselves into the different groups? Did you figure out ways to make it easier?*

Check for understanding

- *Think about any gardens or farms you might have seen around here. What are the crops growing in our region right now? What are the crops that are currently harvested? What parts of the plant are growing right now? What parts of the plant will be growing next season?*
- *When we eat things that are not in season, how do we get them? What are the effects on the environment of eating fruits and vegetables when they are out of season?*
- *What tips would you give someone for reading a seed packet?*

ADAPTATIONS

Cooking Extension: Have students choose a season and, using their wheel, create a menu centered around whatever is in season in your region.

Sowing Extension: Have students create an outer concentric circle for when crops can be sown by season.

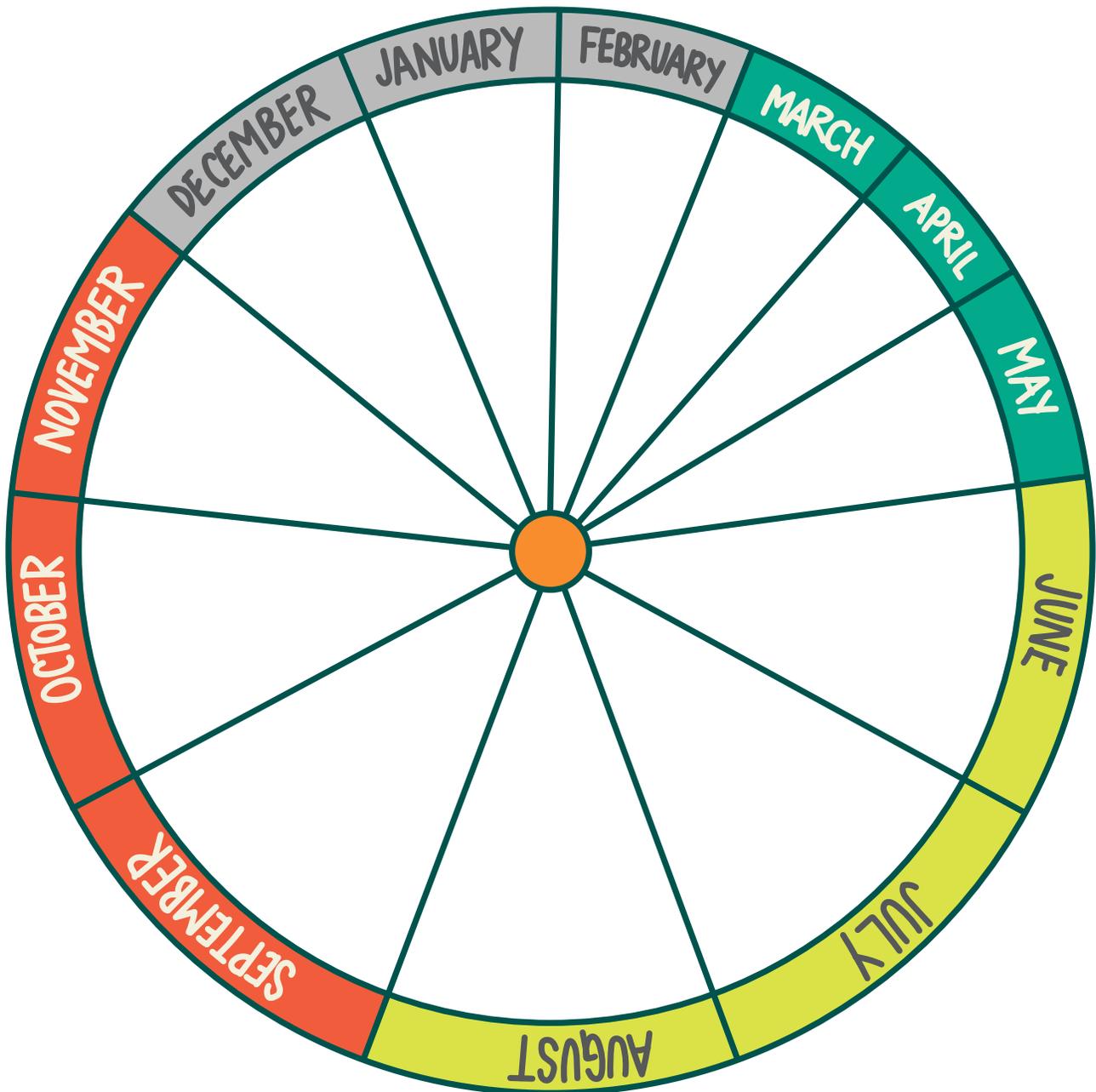
ACADEMIC CONNECTIONS

English Language Arts Common Core State Standards

CCSS.ELA-LITERACY.RI.5.7

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Seasonal Food Wheel Template

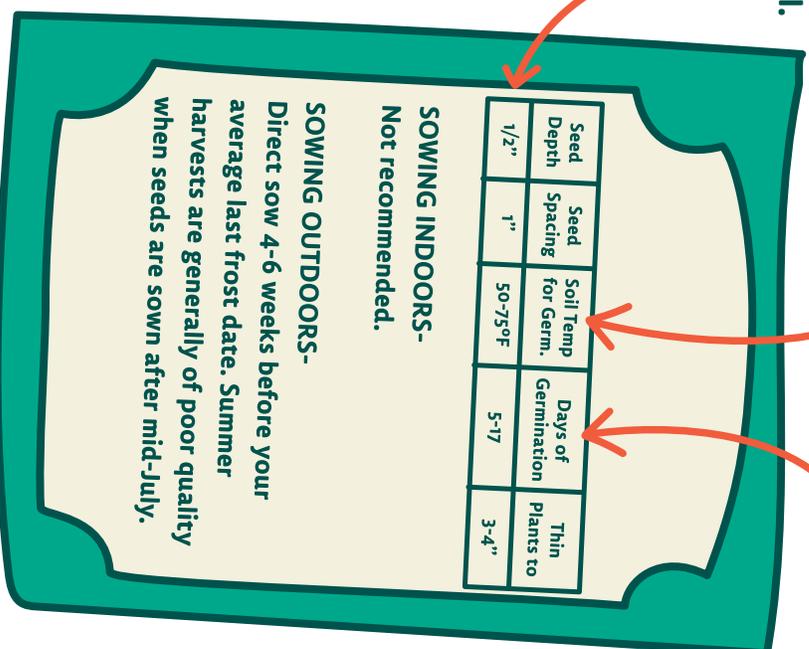


READING A SEED PACKET

How long before the plant can be harvested.



Only plant the seed this deep in soil.



The soil needs to be this warm for the seed to sprout.

How long before the seed sprouts.

Seed Depth	Seed Spacing	Soil Temp for Germ.	Days of Germination	Thin Plants to
1/2"	1"	50-75°F	5-17	3-4"

SOWING INDOORS-
Not recommended.

SOWING OUTDOORS-
Direct sow 4-6 weeks before your average last frost date. Summer harvests are generally of poor quality when seeds are sown after mid-July.