How Do Vegetables and Fruits Differ?

1. Make copies of Student Resource Page 1.1, Vocabulary, and distribute to students. Discuss the definitions with students as the terms come up throughout the section.

2. Ask: **What is a vegetable?** (an edible plant part)
   Ask: **What is a fruit?** (a mature, or ripened, ovary that contains seeds)
   Ask: **How are fruits and vegetables different?** (A vegetable may or may not have seeds. Many vegetables, such as celery, are not fruits but are other plant parts.)

3. Point out that vegetables may be stems, such as celery, onions, or sugar cane. Root vegetables include carrots, turnips, beets, and radishes. Edible leaves include lettuce, spinach, and cabbage. Vegetables that are fruits include beans, squash, cucumbers, and tomatoes.

**We Eat Plant Parts**

**20 minutes**

**Pairs**

**Objectives**
- Students classify vegetables as roots, stems, leaves, or fruits.
- Students measure lengths and widths of vegetables using a metric ruler.

**Materials**
- For each pair
  - 2 *metric rulers
  - 2 plastic trays
  - 2 each *vegetables: fruits, roots, stems, leaves
  - *Not provided in kit

**Student Resource Pages**
- 1.2 *We Eat Plant Parts, Pages 1 and 2*

**Inquiry Focus**
- Classify

1. Prepare students to observe vegetables.
   Make copies of Student Resource Page 1.2, *We Eat Plant Parts, Pages 1 and 2*, and distribute to students.
Have students fill out the Resource Page as they observe and classify vegetables.

2. Students classify vegetables by plant part.
   Give each pair of students two plastic trays with vegetables and two metric rulers. Help students sort the vegetables by whether each is a fruit, root, stem, or leaf. Ask: Do people eat more fruits, roots, stems, or leaves? (Answers may vary according to students' own preferences.)

3. Discuss other groupings.
   Ask: What other ways can you group vegetables? (by size; by shape: round, not round; by color: green, not green; by texture: rough, smooth) Have each pair of students sort one group of vegetables (fruits, roots, stems, or leaves) by one other feature.

4. Students observe variety in vegetables.
   Have students measure the length and width of several vegetables and record their measurements on the We Eat Plant Parts, Pages 1 and 2, Resource Page. Ask: Can you identify a vegetable by its length or width? (No)

5. Define vegetable.
   Ask: Which parts of a plant can be a vegetable? (fruit, root, stem, leaf) Emphasize that the word vegetable is used in cooking and agriculture and refers to a wide variety of plant parts.

Safety
Step 4: Make sure students do not put the vegetables in their mouths. Have them wash their hands after handling vegetables.

Assessment
Have students try to determine what feature another student pair used to sort the vegetables in Step 3.
**Vegetable Funny Faces**

Cut some of the vegetables used in this activity into smaller pieces. Give each student a paper plate, and have students choose six to eight different vegetable pieces. Have them arrange the pieces into a funny face on the plate and tape them in place. Students can show their creations to the class.

**What Is a Fruit?**

<table>
<thead>
<tr>
<th>20 minutes</th>
<th>Pairs</th>
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**Objectives**

- Students observe a variety of vegetables, some with seeds and some without.
- Students learn that vegetables with seeds are called fruits.

**Materials**

*For each pair*
- *vegetables from Investigate 1

*For the teacher*
1  *knife
*Not provided in kit

**Student Resource Pages**

- 1.2 We Eat Plant Parts, Pages 1 and 2, from Investigate 1

**Inquiry Focus**

- Predict

1. **Students predict which vegetables have seeds.**
   Have students predict which vegetables they think have seeds. Then cut each vegetable in half, and have students look for seeds. Have them record their answers on Student Resource Page 1.2, Pages 1 and 2.
   Have them observe the texture, color, shape, and number of seeds in each vegetable. Tell students that a vegetable that contains seeds is actually a fruit, which is a ripened ovary of a flowering plant.

2. **Students name the vegetables that have seeds.**
   Have students name the vegetables with seeds while you write them on the board. Ask: **Were your predictions correct?** (Students probably will not be able to correctly predict all of the vegetables that have seeds.) Stress that fruits always have seeds, even if the seeds are small and hard to find.