1. (Optional) Lay the plants on a paper towel or plate for easy cleanup. Depending on the number of plants available, have students work in collaborative groups to explore the plants.

2. Encourage students to draw and describe each plant structure as they determine what purpose it might have. Do all plants have the same structures? Do all structures look the same? Can students think of a plant without one of these structures?
WHAT’S GOING ON?

All plants have internal and external structures that allow it to survive, grow, and reproduce. The main observable structures that most plants have are:

- **Roots:** This structure anchors the plant into soil or other substrate to keep it in place, and absorbs water and other nutrients that the plant needs to survive. Roots can also store food for the plant. Potatoes, beets, and carrots are examples of food storage in roots. Moss has no roots at all, and absorbs water solely through its tiny leaves.

- **Stem:** This structure transports water, nutrients, and food throughout the plant.

- **Leaf:** This structure's main purpose is photosynthesis, or the production of food (sugar) from sunlight and carbon dioxide. Photosynthesis primarily happens here, but can occur in any structure containing green chloroplasts, such as the stem. Leaves also exchange oxygen and carbon dioxide through small pores called stomata. Some leaves attach directly to the stem, while others are attached by a thin structure called a petiole.

- **Flower:** Many plants use flowers as a method of reproduction. Flowers collect pollen, often carried by pollinators, from other flowers in order to develop seeds.

NYS P-12 SCIENCE LEARNING STANDARDS

This activity connects to the following components:

- Disciplinary Core Idea - LS1.A - Structure and Function
- Science & Engineering Practice - Developing and Using Models
- Crosscutting Concept - Systems and System Models

“Do the research. Ask questions. Find someone doing what you are interested in! Be curious!”

-KATHERINE JOHNSON
# Parts of a Plant Worksheet

<table>
<thead>
<tr>
<th>Structure</th>
<th>Looks Like</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Root</td>
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<td>Stem</td>
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<td>Leaf</td>
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<td>Flower</td>
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