

# Plant Part Collectors

Week 12 — Wednesday | *Collect and Observe Roots and Stems*

## Reading Time

Scientists who study plants are called botanists. Botanists collect plant parts. Then they observe them closely. Observe means to look very carefully.

Today you will be a botanist! You will go outside and collect plant parts. Look for leaves, stems, and roots that have already fallen. You can also pull a small weed to see its roots. A magnifying glass makes small things look big. It helps you see tiny details, like root hairs and stem lines.

Botanists also measure what they find. You will use a ruler to measure your stems. Remember to write down everything you notice. Good scientists always record their observations!

## Quick Questions

1. What is a scientist who studies plants called?

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2. What does a magnifying glass do?

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3. Why should scientists write down what they see?

## Safety First

### Safety rules for collecting:

1. Ask an adult before pulling any plant.
2. Never touch plants with three shiny leaves. They might be poison ivy!
3. Wash your hands after touching plants and soil.

## Investigation: Collection Walk

**You need:** a bag, a magnifying glass, a ruler, and an adult helper.

**Step 1:** Walk outside and collect 3 stems and 1 plant with roots.

**Step 2:** Look at each part with your magnifying glass.

**Step 3:** Measure each stem with your ruler.

**Step 4:** Record what you find on the next page.

Sort Your Collection

Sort the plant parts you found into the correct boxes.

| Roots I Found | Stems I Found | Other Parts I Found |
|---------------|---------------|---------------------|
|               |               |                     |

Data Results: Stem Measurements

Measure each stem. Write what you observe with the magnifying glass.

| Stem   | Length (inches) | Color | Bendy or stiff? | What I saw up close |
|--------|-----------------|-------|-----------------|---------------------|
| Stem 1 |                 |       |                 |                     |
| Stem 2 |                 |       |                 |                     |
| Stem 3 |                 |       |                 |                     |

Root Observations

| Question                                       | My Answer |
|------------------------------------------------|-----------|
| What color are the roots?                      |           |
| Are the roots thick or thin?                   |           |
| Do you see tiny root hairs?                    |           |
| Was the plant hard to pull from the soil? Why? |           |

Drawing: My Best Find

Draw your favorite plant part exactly as you see it through the magnifying glass.

## Extended Writing: Botanist Report

Write about your collection walk. What did you find? What surprised you the most?

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### Challenge: Design a Super Root

Pretend you can invent a new kind of root. It must hold a plant in a very windy place. Draw your super root design below. Label the parts!



How does your super root hold on tight?

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### Science Journal

1. Which was easier to find outside, stems or roots? Why do you think so?

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2. What is one new thing you learned today?

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3. What question do you still have about roots or stems?

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