What Is a Terrarium?

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

2. Write the word *terrarium* on the board. Ask: **What is a terrarium?** *(a habitat for small plants and animals)*

Tell students they will plant seeds that will sprout and grow into plants. You will then give them two kinds of animals for their terrariums. Ask: **What is in a terrarium besides plants and animals?** *(soil, water, air, light)*

**Student Resource 1.1 (p. 14)**

**Student Resource 1.2 (p. 15)**
In Advance

- For each group of students, prepare a terrarium with soil as follows: Write an identifying number in pencil on the frosted strip of plastic on the end of the terrarium. (Never put tape or labels on a terrarium.) Ask each student to bring in $1 \frac{1}{2}$ cups of soil, or provide a bag of potting soil for the class. You will need 6 cups of soil (a 2-inch layer) for each terrarium. Two students can quickly put soil into all the terrariums for the class. Have them do this outdoors to avoid any mess. The soil can be left in the terrariums for two years before replacement is necessary.

- Soak all the seeds in water overnight for faster germination. To prevent mold growth on seeds add a teaspoon of bleach to the water seeds soak in.

Inquiry Focus

- Use Numbers

Student Resource

- 1.2 Observing and Planting Seeds

1. Distribute the materials.
Make copies of Student Resource 1.2, Observing and Planting Seeds, and distribute to students. Pass out seeds to each group.

2. Students examine and measure seeds.
Have students compare the size, shape, and color of the different kinds of seeds and write a brief description of each in the chart on the Resource page. Have students measure one “average-size” seed of each kind and record their data.

3. Students plan their planting.
Have each group choose three kinds of seeds to plant and decide how many of each kind they will plant. Tell them to draw a diagram on the Resource page to show the location and number of each kind of seed they will plant. Explain that each kind of seed should be planted in rows of ten. (This will make it easy for students to calculate the percentage of seed germination in Investigate 4.

4. Assign the terrariums.
Give a numbered terrarium to each group. Have students record the terrarium number on the Resource page.
5. **Students plant the seeds**
   Have students count out and plant their seeds in the terrarium soil according to the diagrams they drew in step 3. Tell them that the pea and corn seeds should be planted about 1-inch deep in the soil and the radish and wheat seeds about $\frac{1}{2}$-inch deep. After the seeds are planted, students should spray the soil with water until it is moist.

6. **Discuss seeds as living things.**
   Ask: **Are seeds living things? Explain.** (Yes, they will grow and develop into plants.) Ask: **Why are plants called producers?** (They produce their own food.)

**Assessment**
Ask: **Suppose you want to plant 50 radish seeds. How many rows of 10 should you plant?** (5 rows)

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**Share with Your Students**

**Growing Plants**
Discuss what plants need to survive. *(light, water, minerals, warmth, space)* Ask: **Are those living or nonliving things?** *(nonliving)* Ask: **What type of plant would be suitable for growing in a terrarium? What type of plant would not be suitable? Explain.** *(Small plants are best. Large plants such as trees would not be suitable because they need too much space.)* **Do you think any two plants can be grown together in a terrarium?** *(No. Two plants that have different requirements—such as sandy soil and rich soil or different amounts of water—could not be grown together.)*