**Materials and Equipment**

The unit, like all hands-on science, requires a large variety of materials to support various ways of learning (including doing, discussing, listening, watching, reading, and writing). Prepare in advance by collecting the materials and equipment needed for all the demonstrations and hands-on investigations.

- Roll paper, poster board, or a bulletin board should be dedicated at the beginning of the unit to serve as a question board to cumulatively document and return to student questions. The question board is referred to in the materials for lesson segments in which it is used, but is not repeated in the materials listed here.
- Internet access and the means to project images/videos for whole-class viewing is also required in many lesson segments but is not repeated below.

**Unit Opener**

- large marker
- sticky notes

**Lesson 1 Plants, Their Needs, and Places Where They Live**

**Lesson 1.1**

- washed and dried carrots with stems and healthy leaves attached (1 bunch per class)
- brown construction paper (1 sheet 8.5 by 5.5 inches per student)
- clear tape (1 dispenser per group)
- crayons or markers (1 set per student)
- jar (1 per class)
- red food dye (10 drops per class)
- sharp knife (1 per class, teacher use)

**Lesson 1.2**

- potted tender-leaved herb plants, such as chives, basil, or cilantro (4 per class, all the same size and type of plant)

**Lesson 1.2, continued**

- digital camera or camera phone (1 per class)
- waterproof dishes, to place under each potted plant (4 per class)
- crayons or markers (1 set per student)
- folders (1 per student)

**Lesson 1.3**

- 8.5-in. by 11-in. white unlined paper (1 sheet per student)
- scissors (1 per pair)
- stapler (1 per class)
- paste or glue (1 per pair)
- map or globe

**Lesson 1.4**

- 12-inch strips of paper (50–100 per class)
- paper egg carton (1 per class)
- seed-starting potting mix (1 bag per class)
- herb seeds (3 different packets per class)

**Lesson 1.5**

- large sheet of brown craft paper (1 per class, minimum of 4 by 6 feet)
Lesson 1.5, continued

- thick black marker (1 per class)
- play putty (1 pack per class)

Lesson 2 Animals, Their Needs, and Places Where They Live

Lesson 2.1
- scissors (1 per pair)

Lesson 2.2
- poster-sized chart as shown in Step 2
- tacks or tacky putty
- one-gallon plastic jug

Lesson 2.3
- 8.5-in. by 11-in. white unlined paper (1 sheet per student)
- scissors (1 per pair)
- stapler (1 per class)
- paste or glue (1 per pair)
- map or globe

Lesson 2.4
- world globe
- blanket or towel
- chart paper (1 sheet per class)

Lesson 2.5
- map that the class began in Lesson 1.5 (1 per class)
- play putty (1 pack per class)

Lesson 3 Humans, Their Needs, and Their Environments

Lesson 3.1
- plate-sized round pieces of brown cardboard (1 per pair)
- scissors (1 per pair)
- glue or paste (1 per pair)

Lesson 3.2
- clipboard or writing board (1 per student or group)
- one-gallon plastic jug

Lesson 3.3
- soap bubble solution and wand
- shallow pan of water (1 per class)

Lesson 3.4
- map that the class began in Lesson 1.5 (1 per class)
- scissors (1 per group)
- glue or paste (1 per group)
- reusable putty adhesive (1 per class)

Science in Action

- tray (1 per group)
- combination of dirt and soil (to scatter around each tray)
- assorted animal figurines (5–6 per group)
- assorted plant figurines (2–3 per group)