

Unit 3 Materials List

Chapter 1

Lesson 2

- A collection of house plants
- Prepared soil types (see instructions with Lesson 2).

For each group of three students:

- Soil samples
- Plastic spoon
- Centimeter ruler
- White paper
- Magnifying glass
- Soil sieves; 2 mm aperture and 0.05 mm aperture
- 8% Calgon® solution (water softener)

Lesson 3

- Making the compost pile in *Composting* requires a specific space and plenty of rubbish. See the student pages for more details.

Lesson 4

For each group:

- 250 ml graduated cylinder
- Grease pencil
- Ruler
- Stopwatch
- Container with small holes in the bottom (around 1 liter in size)
- 500 ml beaker to place below the container

Lesson 5

- A variety of different sponges

Lesson 6

- Fast plants growing kit, seeds and light
- A location for growing fast plants where they won't be disturbed

Chapter 2

Lesson 2

For each lab group:

- Container with straight sides
- 100 ml graduated cylinder
- 4 test tubes
- 4 corks or stoppers with holes (clay will also work well)
- 4 plant cuttings
- Grease pencil
- Index cards or scraps of paper

Lesson 5

For each lab group:

- Pan of soil to represent the farm (should have holes at one end for drainage)
- Pan to catch water that drains out the end of the "farm" (if you are running water through the irrigation systems)

- Bendable drinking straws, tubes, hoses, etc. for water delivery
- Paper clips, clay, etc. for connecting different parts

Chapter 3

Lesson 1

For each group:

- Simple plastic stream table
- Oil-based clay or modeling clay (approximately 2 lbs per stream table)
- 1 bucket used for water collection
- Paper towels

Lesson 3

For each group:

- 2-liter soft drink bottle (clear bottoms preferred)
- Lump of oil based clay (enough to fill the bottom of a 2 liter bottle)
- Clear overhead transparency or plastic sheet
- Metric ruler
- Fine-tip overhead transparency marker
- Container to pour water from
- Permanent marker

Lesson 4

- Sand

Chapter 5

Lesson 1

- Gallon milk jug
- Stopwatch

Lesson 2

For each group of three students:

- Clear plastic cup
- Gravel or small rocks
- Clay
- Sand
- Small cup of blue-colored water
- Small cup of red-colored water
- A large aquifer/groundwater demonstration model

Lesson 3

- Pipettes

Lesson 5

For each group of students:

- Water
- Food coloring
- Clear glass or beaker

Lesson 6

- Prepare “samples” for nitrate and conductivity experiments
- Nitrate test kits
- Electrical conductivity meters