

- Advance Preparation for Activities and Demonstrations
- What to Do When Activities Don't Give Expected Results

These resources may also be accessed within the CKSci Online Resources Guide for this unit, available at

www.coreknowledge.org/cksci-online-resources

MATERIALS AND EQUIPMENT

The unit 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 lessons 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 are also required in many lessons but are not repeated below.

Lesson 1 What Is Lightning?

- flashlight

Lesson 2 What Has Electricity?

- flashlight
- stapler
- box of pens/pencils
- rolls of tape/tape dispenser
- lunch box
- blocks or art supplies
- variety of classroom electronics (e.g. electric hole puncher, computer monitor, lamp, fan, projector, television, router/modem)

Lesson 3 What Are the Types of Electricity?

- N/A

Lesson 4 It's Not Magic...It's Static!

- plastic rod
- pieces of cloth (3, plus 1 for teacher demonstration)
- plastic (grocery) bag
- inflated balloon
- carton of salt
- tin of black pepper
- plastic spoon
- disposable bowl
- foam plates (2)
- wool cloth
- plastic comb
- torn pieces of paper
- timer

Lesson 5 What Are the Sources of Electricity?

- flashlight
- lamp with light bulb

Lesson 6 What Is a Circuit?

- rubber ball
- single-throw light switch
- yellow markers (1 per student)

Lesson 7 Building a Simple Circuit

- D-cell batteries (1 per group)
- 8–10 inches of coated/insulated copper wire (2 per group)
- electrical tape (2 inches per group)
- scissors (1 pair per group)
- wire strippers
- flashlight bulbs (1 per group)

Lesson 8 Magnets and Electricity

- N/A

Lesson 9 Magnets and Rotating Motion

- compass (1 per group)
- magnet wands or bar magnets with labeled poles (1 per group)
- paper or plastic cup (1 per group)

Lesson 10 Science in Action: A Day with an Electrician

- discarded power cord (1 foot per group)
- scissors (1 pair per group)
- craft trays (1 per group, optional)