

# PREPARING FOR THE ACTIVITIES—QUARTER 4

## CLASSROOM MANAGEMENT

### Materials

You may want to familiarize yourself with the kit materials before beginning the activities. The contents of each drawer are listed on the drawer labels. We suggest that you refer to the Materials List on pages 1–3 of this guide as you review the materials in each drawer.

Before beginning each activity, review the Materials list and the Preparation required for the activity. The Materials list indicates which items will be used in the activity, how many of each item will be needed for each individual and each student team, and the size of each team. We recommend that you ask student helpers to assist you in locating materials and preparing for each activity.

After you have completed the quarter, make a list of any items that need to be ordered for the next use. For information, call 1-800-258-1302.

### Distribution Stations

The most efficient way to distribute materials during an activity is to set up distribution stations from which students can obtain materials as needed. If space in your classroom is limited, you may have room for only one station. If you have more space, we recommend setting up two or three distribution stations, each containing about a half or a third of all the materials listed in the Materials list for each activity. In this way, each distribution station will contain all of the different items used in the activity, and students will not need to visit more than one station to obtain all of their materials.

### Cooperative Learning

The **Broward County Hands-On Science** program encourages and promotes cooperative learning strategies. The quantity of materials included in each kit allows small groups of

students to investigate phenomena and each student to make observations and report what he or she has learned. The interaction between team members is an integral part of each activity and enhances individual outcomes.

## ADVANCE PREPARATION

**Activities 31 and 32:** These activities require a cardboard box at least 2 ft × 1 ft × 1 ft. You should be able to get one from the copy center (if your school has one), the art department at your school, or the local grocery store.

**Activity 33:** Students will be working with papier-mâché. They will need to begin collecting old newspapers about a week in advance. They should start bringing them in several days before the activity is to be conducted. They will also need to dress for messy work on the day of the activity.

**Activities 34 and 35:** You will need to plant bean seeds about two weeks prior to beginning these activities.

**Activities 38 and 39:** Purchase three large geranium plants, or other plant with a similar leaf. Search for photos that have microscopic views of geranium stomata.

## MATERIALS MANAGEMENT

You may find it helpful in **Activity 33** to place containers of liquids in old dishpans, with all pouring being done over the dishpan. Keep several old towels or a roll of paper towels near the dishpan so students can clean up their spills.

Water all plants regularly. If plants are to be left unattended over vacation periods, place all the plants together, water them liberally, and cover them with a large plastic sheet, such as a dry-

cleaner's bag. In winter, leave a light source turned on outside the plastic sheet to help maintain the temperature above 10°C (50 °F). The geraniums and bean seedlings can tolerate a temperature range of 15°C to 35°C (59 °F to 95 °F), but 20°C to 25°C (68°F to 77°F) is best.

Microslides and viewers are used in **Activities 36–39**. Since there are only four slide/viewer sets supplied in the kit, you may choose to rotate the use of them by student groups at different times during the activity. This will cut down on wait time.