

PREPARING FOR THE ACTIVITIES—QUARTER 1

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

The step-by-step instructions for many of the experiments are located on the activity sheets. Read them over carefully as part of your preparation for each activity. Many of the activities require students to build models of atoms and molecules. You may want to practice building them in advance to familiarize yourself with the model pieces and the specific structures that you and the students will be making.

Activities 1, 8, and 9: These activities require the preparation of solutions or mixtures ahead of time.

Activities 1 and 2: You will need a triple-beam balance for measuring masses.

Activity 2: You will need to glue caps to syringes and allow them to dry for at least 24 hours. On the day of the activity, each student should bring a book to class—preferably one they all use, such as their math textbook.

Activity 5: Bring to class several textbook drawings and diagrams of atoms to show the students.

Activities 8 and 9: Arrange for access to a stove or hot plate and a container suitable for boiling water. These activities call for a jar of boiled water that has cooled.

Activity 10: You will be using a microslide strip and viewer. 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.

MATERIALS MANAGEMENT

Some of the activities require students to pour or measure out chemicals. Set up a distribution station from which students can obtain—in a safe and orderly manner—all the materials they will need for each activity, and instruct students on the safe handling of all chemicals and hot liquids.