

Scott Foresman
SCIENCE

Grade 3

**Equipment Kit
Guide**

Unit D

Human Body

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Equipment Kits and Teacher's Guide

Equipment Kit Management

About Your Kits

The equipment in *Scott Foresman Science* is packaged in sturdy plastic bins for your convenience. The quantities included support eight groups of four students each.

Unit Kit/ Grade Level Kit

The Unit Kit contains most of the items you will need to conduct hands-on activities with your students. Equipment for each unit is contained in one or two bins. The Unit Kit is designed to be purchased separately. Each bin is clearly labeled with the grade level, bin number, unit name, and contents. A label inside the lid of each bin references the materials by activity. Only activities requiring kit items are listed.

Unit Kits are also available in a Grade Level Kit configuration. In this format, a common bin eliminates items duplicated across the units for cost savings and convenience.

Demonstration Kit

The Demonstration Kit gives teachers the opportunity to rehearse activities before conducting them in the classroom. Kit-provided materials for each activity are pre-packaged and labeled for easy identification. When used in conjunction with the activity videos, the demonstration kits make it easy to prepare and conduct all investigations and experiments.

Storage of the Kits

Your equipment is packaged in sturdy, translucent plastic bins and labeled for easy storage and access. Bins may be stacked or stored on shelves or carts. Bins are labeled on all sides for quick identification and location of items. This provides convenient organization of materials before and after use.

Replacement Materials

Use the Packing List/Replacement Parts Price List to reorder items as needed for the Unit Kit or Grade Level Kit. These order forms are packed in the plastic bins and can be photocopied. Each list provides a column for entering the quantities of items you need to replace. Materials are organized alphabetically and identified as consumable or nonconsumable.

Complete consumable Replacement Kits are available as well. These kits replenish all the consumable materials for each Unit Kit or Grade Level Kit.

Using the Teacher's Guide

This guide will help you better prepare to conduct the program activities in your classroom. Reviewing the guide while practicing with the activity video and demonstration kit or simply reading the guide upon receiving your classroom kit will make it easy to facilitate an activity with your students.

Getting Started

Familiarize yourself with the kit contents. To make sure your shipment is complete, check the packing statement provided with your kit.

Activity Notes

The Activity Notes in this guide provide comprehensive information to make your activity sessions a success. This information may include:

Video Segment

The video segment number is indicated to help you cue the tape to each Investigate and Experiment activity.

Materials

A materials list for each activity identifies kit-supplied and school-supplied materials. Use this list as a check of your kit contents and as a list for class preparation.

Material Substitutions

For increased flexibility, material substitutions, when appropriate, are indicated.

Advance Prep

These instructions offer preparation guidance as necessary. With these suggestions, you will always be well prepared to conduct activities in your class.

Hints and Tips

Detailed hints and tips help to ensure student success in the classroom. Notes range from how to enhance students' success to increasing your understanding of activity concepts.

Safety Notes

While safety should be practiced at all times for each activity, it may be necessary to consider specific activity concerns. These notes give activity-specific safety tips.

Additional Comments

This section provides extension ideas, alternate activities, and other helpful information.

Exploring Balance

Explore Activity (D6)

Materials (per group)

Kit Items	School-Supplied Items
none	clock with a second hand

Hints and Tips

Have students stand by the student performing the balance test to prevent the student from falling.

Safety Note

Have students perform this activity in an open area away from furniture or desks.

Additional Comments

Students may also try to keep their balance with their eyes closed and their hands at their sides. This will make it even more difficult to maintain balance.

Modeling How Muscles Work

Investigate Activity (D22–D23)

Video Segment 1

Materials (per group)

Kit Items	School-Supplied Items
2 cotton strings, about 30 cm each	safety goggles posterboard shapes scissors hole punch sharpened pencil brass fastener masking tape

Material Substitutions

Heavy drawing paper may be used in place of the posterboard.

Advance Prep

- Draw and cut out shapes similar to the drawing on textbook page D22. You may enlarge this drawing on a photocopy machine and use it as a template to draw the shapes on the posterboard. Label the shapes as shown in the drawing.
- Cut 2 pieces of string to about 30 cm each. This will vary depending on the size of the model. Strings must reach from the foot through the top of the lower leg, and through the punched holes, extending about 10 cm through the holes.
- You may wish to use the hole punch to poke the holes through the X on each shape.

Safety Note

Students should use care when poking a hole through the posterboard with a pencil.

Observing Your Nervous System in Action

Investigate Activity (D28–D29)

Video Segment 2

Materials (per group)

Kit Items	School-Supplied Items
half-meter stick	safety goggles

Material Substitutions

A full meter stick or a metric ruler may be substituted for the half-meter stick.

Hints and Tips

Tell the students dropping the half-meter stick not to let their partners know when they are about to release it.

Safety Note

Students should be careful not to strike other students when manipulating the half-meter stick.

Additional Comments

You may wish to point out to students that they are not directly measuring the time it takes for them to react to the dropping of the half-meter stick. They are measuring the distance the stick falls before they catch it. In general, the farther the stick falls before being caught, the longer it takes the student to catch it.

Exploring Food Choices

Explore Activity (D34)

Materials (per group)

Kit Items	School-Supplied Items
none	pencil or marker paper

Hints and Tips

Students (and their parents) may prefer to keep the results of the food record private. Students' diets should not be compared in class. Students should be encouraged to reflect on their food selections privately.

Additional Comments

You may wish to extend this activity for a few more days to get a more typical sample of students' diets.

Testing Foods for Fat

Investigate Activity (D44–D45)

Video Segment 3

Materials (per group)

Kit Items	School-Supplied Items
none	pieces of brown paper bag marker butter, carrot stick, potato, potato chip paper towels assorted other foods

Material Substitutions

Add or substitute other foods such as raw vegetables, fruits, candy, bread, and hard-boiled egg.

Advance Prep

Have 8 1/2 in. x 11 in. sections of paper bag available for each group. Prepare food samples in sizes small enough to handle, yet large enough to rub on the paper.

Hints and Tips

- Food samples should be kept separate so that fat from one food is not transferred to another. If students hold the foods with their fingers, have them wipe their hands with a paper towel or wash their hands between each test to prevent transferring fat from one food sample to the next.
- Have students compare their findings and try to reach a consensus on the presence of fat in the various foods.

Safety Notes

Remind students that they should not taste foods used in science class. Students should wash their hands after completing this activity.

Conducting a Sleep Survey

Experiment Activity (D55–D57)

Video Segment 4

Materials (per group)

Kit Items	School-Supplied Items
grid paper	4 small pieces of paper numbered paper bag writing paper

Advance Prep

Number the paper bags. Each group should be supplied with a bag with a different number.

Hints and Tips

- Be sure students keep their responses to the survey question private. Remind them that this is to keep from influencing the answers of others.
- Students may need to add more numbers to their graphs if many students reply with the same answer.
- Be sure that students label their graphs correctly and that they understand how to make bars on the graph that fall between the numbers labeled on the y-axis.

Additional Comments

If possible, you may wish to obtain data collected by other classes and add it to your class data. Point out to students that adding more students to the survey makes the data more reliable.