

Scott Foresman
SCIENCE

Grade K
Equipment Kit
Guide

Unit A
Life Science

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Contents

Equipment Kits and Teacher’s Guide	i
-------------------------------------------------	----------

Activity Notes for Unit A Life Science

Identify living things. (A7).....	1
Identify needs of living things. (A7).....	1
Explore growing sprouts. (A7a).....	1
Identify nonliving things. (A9).....	2
Classify living and nonliving things. (A9).....	2
Explore living and nonliving objects. (A9a).....	2
How do animals move? (A15).....	3
Observe animal coverings. (A15).....	3
Explore feathers. (A15a).....	3
Identify animal needs. (A17).....	4
Help pets meet their needs. (A17).....	4
Explore how feathers protect birds. (A17a).....	4
Identify baby and adult animals. (A19).....	5
Care for baby animals. (A19).....	5
Explore nests. (A19a).....	5
Observe how seeds grow. (A25).....	6
Compare seeds and plants. (A25).....	6
Explore how seeds move. (A25a).....	6
Experiment with seeds. (A26–A27).....	7
Observe what plants need. (A29).....	7
Help meet plants’ needs. (A29).....	7
Explore moisture. (A29a).....	8
Identify parts of a plant. (A31).....	8
Observe the jobs of plant parts. (A31).....	9
Explore parts of plants. (A31a).....	9

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.

Identify living things.

Explore Activity (A7)

Materials (per group)

Kit Items	School-Supplied Items
none	crayons

Advance Prep

Determine the route you will take on your hike prior to doing this activity.

Safety Note

Remind children not to touch or taste unfamiliar objects on the walk.

Identify needs of living things.

Explore Activity (A7)

Materials (per group)

Kit Items	School-Supplied Items
none	glue paper old magazines

Hints and Tips

Children may need assistance in recognizing how the needs of living organisms are met.

Explore growing sprouts.

Science Center Activity (A7a)

Materials (per group)

Kit Items	School-Supplied Items
alfalfa seeds plastic cup, 10 oz	spoon 2 bowls (for whole-class use) paper towels water

Advance Prep

- Wash the alfalfa seeds and let them soak in a bowl overnight. Rinse them again the next day and put the seeds in a large bowl.
- Cut paper towel circles to line the bottom of each cup.

Hints and Tips

Children should keep the paper towel moist but not soaked.

Identify nonliving things.

Explore Activity (A9)

Materials (per group)

Kit Items	School-Supplied Items
none	pencils crayons living and nonliving things paper

Hints and Tips

Use living and nonliving things in your classroom such as plants, books, animals, and markers.

Classify living and nonliving things.

Explore Activity (A9)

Materials (per group)

Kit Items	School-Supplied Items
none	groups of living and nonliving things old magazines

Advance Prep

Gather items that can be classified as living or nonliving. Make sure you have objects representative of both categories.

Explore living and nonliving objects.

Science Center Activity (A9a)

Materials (per group)

Kit Items	School-Supplied Items
plastic resealable bag plastic sandwich bags hand lens	scoop tray soil sample

Advance Prep

Collect soil samples from under a rock or log and place the samples in resealable bags. If possible, use a cafeteria tray for this activity.

Safety Note

Remind children to use sandwich bags on their hands when handling the soil.

How do animals move?

Explore Activity (A15)

Materials (per group)

Kit Items	School-Supplied Items
none	animal pictures

Advance Prep

Gather pictures showing a variety of animals. You can use pictures cut from magazines and/or animal picture cards.

Observe animal coverings.

Explore Activity (A15)

Materials (per group)

Kit Items	School-Supplied Items
none	animal pictures

Advance Prep

Make sure your animal pictures show animals with different body coverings.

Explore feathers.

Explore Activity (A15a)

Materials (per group)

Kit Items	School-Supplied Items
contour feathers down feathers	tape recorder small cardboard box

Hints and Tips

Down feathers are fluffy and lie close to the bird's body under contour feathers. Contour feathers are found on the bird's body, wings, and tail.

Safety Note

Children who are allergic to feathers should not participate in this activity.

Identify animal needs.

Explore Activity (A17)

Materials (per group)

Kit Items	School-Supplied Items
none	water bird feeder or shallow bowl birdseed and/or other foods such as suet

Advance Prep

Set up a feeding station outside your classroom and place birdseed and water at the station. The more kinds of food you offer, the more types of birds you are likely to attract.

Hints and Tips

Mark off a birdwatching station at a classroom window so children can observe bird behavior from indoors. Let groups take turns observing at the window.

Help pets meet their needs.

Explore Activity (A17)

Materials (per group)

Kit Items	School-Supplied Items
none	crayons index cards

Additional Comments

This would be a good activity to coordinate with a trip to a petting zoo, animal shelter, veterinary office, or other institution that cares for animals. Or, you may wish to invite an employee from an animal care facility to come and speak to children.

Explore how feathers protect birds.

Science Center Activity (A17a)

Materials (per group)

Kit Items	School-Supplied Items
dropper contour feathers hand lens	water tape recorder

Hints and Tips

Demonstrate how children should fill the dropper with water from the plastic cup.

Safety Note

Children allergic to feathers should not do this activity.

Identify baby and adult animals.

Explore Activity (A19)

Materials (per group)

Kit Items	School-Supplied Items
none	paper crayons pictures of animals scissors

Advance Prep

Gather a variety of animal pictures showing adult animals and baby animals. You may want to include pictures of some animals and babies that look different as adults and babies.

Care for baby animals.

Explore Activity (A19)

Materials (per group)

Kit Items	School-Supplied Items
none	crayons pencil paper scissors

Hints and Tips

Allow enough space in the classroom for children to demonstrate adult animals caring for the baby animals.

Explore nests.

Science Center Activity (A19a)

Materials (per group)

Kit Items	School-Supplied Items
none	picture of birds and their nests art supplies twigs, string, dried grass and leaves (optional)

Advance Prep

When gathering art supplies to build a nest, include items such as craft sticks, cotton balls, empty cartons or boxes, modeling clay, and strips of newspaper. You may also want to provide twigs, string, dried grass and leaves.

Additional Comments

This would be a great opportunity for a nature walk. Children can look for real birds' nests.

Observe how seeds grow.

Explore Activity (A25)

Materials (per group)

Kit Items	School-Supplied Items
none	classroom plants or pictures of plants

Advance Prep

Gather pictures of plants in various stages of growth. Be sure to include photos showing seed, seedling, full grown, and wilted plants.

Compare seeds and plants.

Explore Activity (A25)

Materials (per group)

Kit Items	School-Supplied Items
none	drawing paper glue apple, green bell pepper, squash or pumpkin seeds knife (for teacher use only)

Advance Prep

Cut the apple, squash or pumpkin, and green bell pepper in half before beginning this activity.

Safety Note

Remind children not to put the seeds or foods in their mouths.

Explore how seeds move.

Science Center Activity (A25a)

Materials (per group)

Kit Items	School-Supplied Items
corn seeds grass seeds maple seeds	bowl of water large white sock

Material Substitutions

Other seeds with floating, sinking, and clinging properties can be used.

Hints and Tips

Test your seeds. Gather additional seeds if necessary to provide seeds that float, sink, and stick.

Safety Note

Tell children not to taste or throw the seeds.

Experiment with seeds.

Experiment Activity (A26–A27)

Video Segment 1

Materials (per group)

Kit Items	School-Supplied Items
2 plastic resealable bags lima bean seeds	cotton balls water cardboard box

Material Substitutions

Damp paper towels can be used in place of cotton balls.

Advance Prep

Find a dark location that will accommodate children's seed bags. Drawers, closets, or cabinets would be suitable areas.

Hints and Tips

The cotton should only be moist, not soaked.

Observe what plants need.

Explore Activity (A29)

Materials (per group)

Kit Items	School-Supplied Items
none	drawing paper crayons

Advance Prep

Clear enough space in the room for children to act out the scenes in the pictures.

Help meet plants' needs.

Explore Activity (A29)

Materials (per group)

Kit Items	School-Supplied Items
none	crayons drawing paper soft ball classroom plants

Hints and Tips

Allow children to practice playing the game at least once.

Safety Note

Children should be reminded to lightly toss the ball around the circle. Throwing the ball hard could injure other children.

Explore moisture.

Science Center Activity (A29a)

Materials (per group)

Kit Items	School-Supplied Items
potting soil measuring cup	water 2 clay pots with drainage holes and saucers 2 cups of pebbles or marbles

Material Substitutions

Plastic pots with drainage holes may be used instead of clay pots.

Hints and Tips

Be sure to pour the same amount of water in the marble-filled pot as in the pot with the soil.

Identify parts of a plant.

Explore Activity (A31)

Materials (per group)

Kit Items	School-Supplied Items
none	carrot, lettuce, broccoli paper crayons

Material Substitutions

Stems, flowers, and/or leaves from a variety of fruits or vegetables may be used.

Advance Prep

Acquire enough vegetables for each group to examine.

Hints and Tips

Mention to children that broccoli is an example of a plant that is both a stem and a flower.

Safety Note

Children should not be allowed to eat the foods.

Observe the jobs of plant parts.

Explore Activity (A31)

Materials (per group)

Kit Items	School-Supplied Items
hand lens	drawing paper unwrapped crayon lettuce, spinach, cabbage leaves

Material Substitutions

Chalk or charcoal can be used instead of crayons to make rubbings of the leaves.

Advance Prep

Unwrap enough crayons in advance to avoid littering the classroom with wrappers.

Safety Note

Children should not be allowed to taste or eat the foods.

Explore parts of plants.

Science Center Activity (A31a)

Materials (per group)

Kit Items	School-Supplied Items
plastic sandwich bag hand lens	craft sticks paper crayons variety of plants

Advance Prep

Gather a variety of plants in advance. Try asking a local florist or nursery for donations.

Hints and Tips

Children should use the sandwich bags as gloves when handling the plants. Gloves designed for child-size hands may be used instead.