



Supplemental First Grade Science Resources

Materials include DVDs, videos, models, etc.

BALANCE IN MOTION

#1 Balance

Bill Nye Physical Science: Balance

531 BIL

1 DVD, 26 minutes.

Discusses the center of gravity and its effect on balance. Conducts an experiment that demonstrates how to balance objects to make a mobile.

Bill Nye Physical Science: Motion

531 BIL

1 DVD, 26 minutes.

Motion illustrates the concept of force and inertia, and demonstrates Newton's Three Laws of Motion.

Bill Nye Physical Science: Balance/Structures (Revised)

530 BIL

1 VHS videocassette 52 minutes+ 2 teachers guides

Balance - 26 min - discusses opposite and equal forces, and torque.

Structures - 26 min - discusses tension and compression.

Recommended: first 20 minutes of Balance video, skip last part

3-2-1 Contact: Forces and Motion

531 THR

3 VHS videocassettes 56 minutes, 5 dittos, 1 teaches guide. Grade Level: 4 - 6

Titles: Gravity - 11 minutes; Buoyancy in Water - 10 minutes; Buoyancy in Air - 14 minutes; Human Forces - 10 minutes; Forces at the Circus - 11 minutes.

Recommended: Human Forces and Forces at the Circus

Circus Posters

791.3 CIR

16 posters

Collection of Ringling Brothers and Barnum and Bailey posters (3' x 2') depicting outstanding performances from 1800's to the present.

#2 Spinners

Why People Have Special Jobs: The Man Who Made Spinning Tops

330 WHY

1 VHS videocassette, 7 minutes + 1 teachers guide

Introduces the basic concept of specialization of labor. Based on the book of the same title.

#3 Rollers

Watch 'em Work: Wheels, Wings, and Moving Things

307 WAT

1 VHS videocassette, 25 minutes

Explores a variety of methods of transportation, including trucks, jets, helicopters, boats, trains, and more.

Reading Rainbow: Bicycle Man

940 REA

1 VHS videocassette, 30 minutes, 2 hardback books, 1 teachers guide

Book titles: Bicycle Man; White Bicycle.

LeVar explores the world of wheels and how they keep us all rolling along. LeVar meets a freestyle bicyclist who shows him some of the fancy tricks of the trade and takes a spin on several wheels himself, including: a skateboard, a scooter and rollerblades. Viewers also get a glimpse of some human powered vehicles that are one of a kind.

Magic School Bus: Plays Ball

531 MAG

1 VHS videocassette, 30 minutes. Grade Level: K - 5

Ms. Frizzle combines physics and baseball in a unique ball game.

3-2-1 Contact: Motion and Forces - Play Ball!

531 THR

1 VHS videocassette 15 minutes, 1 ditto, 1 teachers guide.

Examines gravity in force and motion.

3-2-1 Contact: Friction - Getting a Grip

531 THR

1 VHS videocassette 15 minutes, 1 ditto, 1 teachers guide.

Examines the process and purpose of friction in movement.

Rip Roaring Roller Coasters: and All Access to Fun

791 RIP

1 videocassette, 92 minutes (Each episode is 23 min.)

Roller coasters -- Ticket to ride -- Under the big top -- Behind the scenes at big events.

Young presenters explore the exciting world of roller coasters; also explored are the behind-the-scenes workings at a rock concert, WWE wrestling, and trapeze acts.

Note: Preview this to find sections about roller coasters, circus acts.

BRIDGES

Bridges

380 BRI

1 VHS videocassette, 11 minutes

Description and history of bridges as well as construction methods and materials.

Awesome Bridges

624 AWE

1 VHS cassette, 30 minutes

Shows different kinds of bridges and famous bridges from all over the world.

NEW PLANTS

Characteristics of Plants

580 CHA

1 DVD, 18 minutes.

This program takes young viewers to a banana plantation and introduces them to the parts of a plant; it showcases the life cycle of a bean plant, and visits a desert to discover the unique adaptation of a cactus. Discussion questions and activities.

Series: Science Clips for Children. Grades K-4

Hands on Science Library: Plants

580 HAN

11 books

Collection of books to enrich the NEW PLANTS Hands-On Science kit

What Do Seeds Do?

582 WHA

1 videocassette, 11 minutes

Shows how a seed grows into a plant capable of supplying its own food and producing its own seed. Gives examples of corn, bean, maple tree, foxtail, and milkweed seeds.

Debbie Greenthumb

581 DEB

4 VHS videocassettes, 45 minutes, 25 dittos, 1 teachers guide

Titles: Plants Can Be Found Everywhere; Where Plants Come From; How Plants Grow; Importance of Plants to our World.

Magic School Bus: Goes to Seed

580 MAG

1 VHS videocassette, 30 minutes

Ms. Frizzle's class explores gardens, plants, and insects.

All About Plant Pollination: Fruit, Flowers, and Seeds

581 ALL

1 videocassette, 24 minutes + 1 teacher's guide

An introduction to the processes of pollination and reproduction in plants, including the development of flowers, fruit

and seeds.

Pumpkin Circle

580 PUM

1 VHS videocassette 20 minutes, 1 teachers guide. Grade Level: K - 3

Examines the life cycle of a pumpkin patch over three seasons.

Bean Germination Biosmount

630 BEA

1 bean model

Model shows three stages of lima and broad bean plant germination.

Corn Germination Biosmount

630 COR

1 corn model

Model shows seven stages of corn germination.

Corn Life Cycle

630 COR

1 corn life cycle model

Displays seed, seedling, small tassel. Immature ear is dissected to show silks and fruit, and ear sectioned to show damage done by earworm.

Dicot Seed

582 DIC

1 dicot seed model, labeled

Exhibits a large buckeye dicot seed that has been germinated and opened to show structures.

Diversity of Plants: Seed Producers

580 DIV

12 study prints

Titles: Living Fossil; A Tree Study; A Strange Plant; Pampas Grass; An Early Bloomer; A Poisonous Plant; A Water Plant; A Cactus Twin; An Air Plant; An Insect Eater; A Plant Parasite; Living Stones.

Flower Anatomy

582 FLO

1 flower anatomy model

Displays two blooms (lily and amaryllis) dissected to show female and male structures. Labeled.

Bill Nye the Science Guy: Flowers

575.6 BIL

1 DVD, 26 minutes

Explores how flowers make seeds, play a key role in pollination and help plants reproduce.

Primary Science: Plants

580 PRI

1 cassette, 1 paperback book, 1 teachers guide

Shows the life cycle of plants and the processes necessary for seeds to grow. Discusses methods for identifying an unknown plant.

Seed Fruits

582 SEE

1 seed fruits model

Displays twelve different types of fruit. Labeled. Titles: Sunflower; Maple; Pecan; Wheat; Apple; Pea; Cherry; Lily; Mulberry; Huckleberry; Blackberry.

How Seeds Get Here and There

582 HOW

1 VHS videocassette, 16 minutes

How did that weed get in the garden? Why do dandelions pop up in different places? How do plants spread from one place to another, even where there are miles of water in between? Seeds can't walk, or swim, or fly, or can they? Come with us on a fascinating field trip as our eight-year-olds discover how seeds move. One finds that even he carries a few hitchhikers. Another flies through the air on a dandelion seed. And they all take part in the "great seed chase".

Seeds! Seeds! Seeds!

E SEE

1 VHS videocassette, 15 minutes

Buddy Bear learns about different kinds of seeds and their uses when he opens a package sent by his grandfather.

What is a Seed?

580 WHA

1 cassette, 28 paperback books, 6 dittos, 1 teachers guide

Examines different kinds of seeds, how they develop into plants, ways they travel. Includes read-along cassette.

Reading Rainbow: Bread is for Eating

E REA

1 DVD 30 minutes, 5 hardback books, 1 teachers guide.

Discusses the history of bread. Examines what goes into making a loaf of bread, from seed to supermarket. Book titles: Bread, Bread, Bread; Bread Is for Eating; La Tortilleria; The Tortilla Factory; Walter the Baker.

Grains

630 GRA

1 grains model, labeled

Displays mature heads on sections of rice, wheat, rye, oats, corn, buckwheat, milo, and millet. Includes individual seeds.

Bread, from Wheat to Table

641.8 BRE

1 VHS videocassette, 12 minutes

Explores the wheat-growing process from wheat berry to harvest. The process continues from field to mill to industrial bakery. At the bakery, viewers are invited to participate in the process of bread making.

Bread Comes to Life: a Garden of Wheat and a Loaf to Eat

641.8 BRE

1 DVD, 22 minutes

Narrated by Lily Tomlin, this award-winning program follows the process of bread-making from the farm to the bakery using live-action footage, time-lapse photography and animated sequences. Narrated in verse with music by George Winston, the program tells the story of the sowing, growing, reaping, threshing, milling, mixing, shaping, kneading, rising, baking and breaking of daily bread.

Leaf and Root Systems Models

581 LEA

4 models, Titles: Root System; Leaf Morphology; Leaves; Leaf Skeleton.

PEBBLES, SAND AND SILT

Earth Science Library III

550 EAR

10 hardback books, 1 booklet, 1 poster.

Titles: How The Earth Works; Our Violent Earth; Science Fun With Mud and Dirt; Soil Erosion and Pollution; The Sun, the Wind and the Rain.

Reading Rainbow: Piggy in the Puddle

F REA

1 VHS videocassette, 30 minutes, 3 hardback books, 1 teachers guide.

LeVar takes viewers behind the scenes as THE PIGGY IN THE PUDDLE by Charlotte Pomerantz, illustrated by James Marshall, is brought to life through the art of clay animation. From painting and sculpting the characters, to filming the action frame by frame, the secrets of "claymation" are revealed. Book titles: Oink; Piggy in the Puddle; This House is Made of Mud.

Hispanic Folk Arts and the Environment: A New Mexican Perspective

745.5 HIS

1 VHS videocassette, 29 minutes, 20 color prints, 1 teachers guide.

Demonstrates nine folk art traditions of New Mexico: **adobe making**, wood carving, furniture making, iron tool making, painted wood panels, straw applique, weaving, decorative tin work, and Colcha embroidery. Examines relationships among lifestyle, natural resources, and art.

Mexico: Crafts and Industries

972 MEX

8 study prints

Titles: Silversmith at Work; **Pottery Painters at Work**; **Building With Adobe Bricks**; Drying Sisal; Printing Textiles; Fisherman at Work; Refining Petroleum; Port of Veracruz.

Let's Create Native American Art

709 LET

1 video, 38 minutes

Presents an introduction to Native American art, featuring a demonstration of Native American storytelling, and including instructions for making sand paintings, buffalo vests, dream catchers, and totem poles.

Note: Show part about sand painting.

Early Native American Art and Culture

709.01 EAR

1 VHS videocassette, 33 minutes

Examines Native American history and culture through their art: pictographs, basketry, pottery, Kiva paintings, sand paintings, and the decoration of animal skins.

Wormania!

592 WOR

1 VHS videocassette, 26 minutes, 1 video teachers guide, 2 paperback books.

Examines earthworms in their natural habitat. Discusses their role in processing organic material. Includes worm songs.

Soil Community Biorama

574.5 SOI

1 soil model.

Ecosystem of 22 specimens of plants, animals and insects. Illustrates how they aerate and return nutrients to the soil.

All about soil

551.3 ALL

1 videocassette, 24 minutes + 1 teacher's guide. Presents many facts about soil including how it is formed, the different types of soil and why soil is important.

WALLS

Reading Rainbow: Wall

F REA

1 VHS video cassette, 30 minutes, 4 hardback books, 1 teachers guide. grade K-5

Inspired by the story THE WALL by Eve Bunting, LeVar visits the Vietnam Veteran's Memorial in Washington D.C. Students meet Maya Lin, the young architect who designed this monument. A look at Mount Rushmore and a mural dedicated to Louis Armstrong expands the concept of walls as a way to pay tribute to those who have gone before. Book titles: My Grandson Lew; All Those Secrets of the World; Tillie and the Wall; The Wall.