



Supplemental Third Grade Science Resources

Materials include DVDs, videos, models, etc.

EARTH MATERIALS

Bill Nye the Science Guy: Rocks and Soil

552 BIL

1 DVD, 26 minutes.

Explains solid facts on volcanoes, landslides, tectonic plates, rivers and weather, looking at their effects on the creation of rocks and soil.

Earth materials

552 EAR

9 posters. Contents: The amazing story of gold -- The wonder of minerals. -- Mining at play -- Look around: everything is made from something -- Switched on mining -- Common ground -- From the earth: a better life -- If it can't be grown, it has to be mined -- Elements comprising the human body.

Eyewitness: Rock and Mineral

552 EYE

1 VHS videocassette 35 minutes

Examines the properties, evolution, uses, history, and folklore of rocks, gems, and minerals.

Reading Rainbow: Magic School Bus Inside the Earth

550 REA

1 VHS videocassette 30 minutes, 4 hardback books, 1 teachers guide

A hilarious science adventure that follows a quirky teacher and her students on a field trip. Students see and learn about stalagmites, stalactites and many other exciting crystal formations, while LeVar experiences the thrill of "spelunking" (cave exploring) with a real-life cave expert.

Book titles: Magic School Bus Inside the Earth; Rock Collecting; Caves; How to Dig a Hole to the Other Side of the World.

All About Rocks and Minerals

552 ALL

1 videocassette, 23 minutes + 1 teacher's guide

Introduces and explains rock types and mineral characteristics.

Earth Science: Minerals - Building Blocks of the Earth

552 EAR

1 VHS videocassette 19 minutes, 1 teachers guide

Examines how geologists collect and identify minerals; properties of minerals; and products developed from minerals.

3-2-1 Contact: Crystals - They're Habit Forming

552 THR

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

Examines the types, forms and growth of crystals.

Common Rocks and Rock-Forming Minerals

552 COM

8 study prints. Titles: Sedimentary Rocks; Igneous Rocks; Metamorphic Rocks; Fossils; Calcite Minerals; Feldspar Minerals; Silica Minerals; Mica & Dark Minerals.

Rock Chart Set

552 ROC

4 rock sample display charts

Titles: Geologic Processes - The Rock Cycle; Sedimentary Rocks; Igneous Rocks; Metamorphic Rocks.

Rocks Collection

552 ROC

3 rock models, 1 poster

Titles: Sedimentary; Metamorphic; Igneous. Samples are labeled.

Oregon Gold

979.5 ORE

1 VHS videocassette 22 minutes

Historical account of mining in Oregon. Shows how to pan for gold.

Rocks and minerals

552 ROC

1 videocassette, 15 minutes

Students learn where rocks come from, what they are made of, and how they are made.

Bill Nye Earth Science: Earth's Crust/Rocks & Soil

550 BIL

1 VHS videocassette 52 minutes + 2 teachers guides

Earth's Crust - 26 min - discusses plate tectonics. Rocks & Soil - 26 min - discusses igneous, sedimentary and metamorphic rocks. *Recommended: Rocks and Soil***Earth Science: Rock Cycle**

552 EAR

1 VHS videocassette 18 minutes + 1 teachers guide

Examines the complex processes that create, change, and break down earth materials. Includes glossary, definitions of major rock types, and authentic and computer illustrations.

Rocks and minerals: Geokit

552 ROC

Resource kit: 3 VHS videocassettes, 1 map; teacher's guide; 4 overhead transparencies; blackline masters, triviacards; Class pack of National Geographic magazine articles.

Contents Maps: Physical earth map; Videos: What's the Earth Made Of? -- Every Stone has a Story -- Splendid Stones.

This resource kit includes the following: Earth's crust and other layers, Igneous rocks, Sedimentary rocks, Metamorphic rocks, Rock cycle, Minerals, Crystals, Gems, Metal ores, Uses of rocks and minerals.

Bill Nye the Science Guy: Archaeology

930.1 BIL

1 DVD, 26 minutes.

Bill Nye answers questions about archaeology, takes a look at ancient tools, and conducts an experiment that demonstrates what trash reveals about human behavior.

FOOD CHAINS AND WEBS

Bill Nye the science guy: Food Web

577 BIL

1 DVD, 26 minutes

Explores and demonstrates how all living things depend on other living things for survival.

What are Food Chains and Webs? (SET)

577 WHA

Set of 40 paperback books. To be used with elementary life science kit for 3rd grade: Food Chains and Web. A simple introduction to food chains and webs, featuring both herbivores and carnivores and discussing energy, food production, and decomposition in various ecosystems.

Animal Predators and the Balance of Nature

591 ANI

1 VHS videocassette 14 minutes + 1 teachers guide

Explains the complex relationship between predator, prey, and nature. Discusses omnivores, carnivores, herbivores, and factors that help maintain nature's balance.

Magic School Bus: Gets Eaten

551.4 MAG

1 VHS videocassette 30 minute

A field trip to the ocean becomes a travel through the ocean food chain.

3-2-1 Contact: Food Chains - Eat and Be Eaten

574 THR

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

Examines the importance of the food chain in our environment. Shows marine biologists in California observing the kelp-sea urchin food chain and sometimes intervening to maintain the delicate balance.

Web of Life

574.5 WEB

1 VHS videocassette 18 minutes + 1 teachers guide

Illustrates the transfer of energy between living things and how marine food chains combine to form food webs. Shows how people can disrupt marine food webs through over-fishing and pollution.

Where Have All the Animals Gone?

574.5 WHE

1 VHS videocassette, 25 minutes, 6 dittos.

Designed to help students understand the concepts of endangered and extinct species, food pyramids, chains, and webs.

Owl Pellet Kit

598.2 OWL

1 VHS videocassette 17 minutes, 1 video teachers guide, 7 posters, 1 pellet model, 1 ditto, 6 transparencies, 2 booklets

Examines the barn owl's natural habits and habitat, and how it relates to the ecosystem and study of skeletal anatomy. Includes owl pellet biorama, bone charts, factual and folklore information.

Owl Pellets Posters

598.2 OWL

6 posters. Titles: Shrew; Mole; Varied Thrush; Vole; Food Web; Bone Sorting Chart.

Life Habitats: Secret of the Pond

574.5 LIF

1 VHS videocassette 12 minutes

Shows the variety of organisms that inhabit a pond community. Good introduction to food chains.

The Barn Owl: An Introduction to Owl Pellet Labs

598.9 BAR

1 videocassette, 15 minutes. Describes the habitat and life-cycle of the Barn Owl. Computer animation is used to show the adaptations which allow the owl to find prey in darkness and process the prey into pellets. The final portion of the video is an overview of classroom techniques with owl pellets, including dissection and identification of prey and their skeletal parts.

METRIC MEASUREMENT

General principles of measurement, metric system

Close enough: estimating

519.5 CLO

1 VHS videocassette, 15 minutes

All measurement is approximate. You need more or less accuracy at different times, so choose the right tool.

Measurement / National Council of Teachers of Mathematics

372.7 MEA

1 VHS videocassette, 15 minutes. Grade K 1 2 3

The monsters come to the conclusion that a standard measurement is very important. Students will recognize the attributes of length and area, explore the making and use of measurements in natural situations, measure with the same size unit (standard and non-standard), and observe the use of tools such as rulers to guide measurement.

Bill Nye General Science: Measurement / Patterns

510 BIL

1 VHS videocassette 52 minutes, 2 teachers guides

Measurements- 26 minutes- illustrates the importance of standard units of measure and shows the relationship between units of length, area, volume, and mass.

Patterns- 26 minutes- introduces the concept of repetition in patterns, recognizes patterns in daily life and examines how patterns lead to an understanding of the world around us.

Measurement

530.8 MEA

1 DVD, 23 minutes, includes teacher's guide

English and Spanish language track available on DVD.

Kids experiment with non-standard measurement and discover the value of using standard units like those found in the U.S. Customary System and the Metric System. Includes using tools like a ruler, balance scales and thermometers.

Measuring Land and Water

530.8 MEA

1 VHS videocassette 12 minutes

Explains how measurement is used to find direction and distance.

Metric System

510 MET

1 VHS videocassette 15 minutes. Grade Level: 3 - 12

Explains the history, meaning and use of the metric system of measurements. Compares metric and U.S. measurements. Includes opinions and questions to stimulate research.

Length

Length

530.8 LEN

1 VHS videocassette, 8 minutes

Provides an introduction to the different methods and devices that have been used throughout history to determine length.

Linear Measurement Kit

530 LIN

30 tape measures, primary ruler kit, trundle wheel in customary units (non-metric) and 35 four-scale rulers. Tools for primary and intermediate classrooms for making linear measurements.

Measured steps: measuring length

516 MEA

1 VHS videocassette, 15 minutes

Discusses a variety of ways to measure length.

Seaside Measure Mat

510 SEA

1 mat. A 42" x 76" floor mat designed to help students practice measuring length, area and volume. Can be used by 6 students.

Sidewalk Measure Mat

510 SID

1 mat. 42" x 76" floor mat designed to help students practice measuring length, area and volume.

Weight

Weight

530.8 WEI

1 VHS videocassette, 9 minutes

Provides an introduction to the different methods and devices that have been used throughout history to determine weight.

Volume

Volume Measurement Kit

530 VOL

18 piece set for customary volume measurement (measuring cups and spoons), set of 5 metric graduated beakers, and liter cube with lid.

Tools for primary and intermediate classrooms for making volume measurements.

Temperature

Temperature Kit

536 TEM

1 demonstration thermometer, 1 classroom thermometer, 30 thermometers, and 1 overhead thermometer.

Tools for primary and intermediate classrooms for reading thermometers and measuring temperature.

WATER

#1 Water Observations

Three-Two-One Contact: Surface Tension - Bubble-ology

541 THR

1 VHS videocassette, 15 minutes, 1 ditto, 1 teachers guide
Examines the concept of surface tension as the role of molecules.

Water

551.4 WAT

1 VHS videocassette, 25 minutes

Oscar reveals the amazing facts about water. Where does it come from? What happens when it gets very hot or very cold? Why do some things float and others sink? What are some uses of water? Oscar explores condensation, evaporation, buoyancy, flotation, and the whole water cycle of the sea, clouds, rain, and rivers.

#2 Hot Water, Cold Water

Temperature Kit

536 TEM

1 demonstration thermometer, 1 classroom thermometer, 30 thermometers, and 1 overhead thermometer.
Tools for primary and intermediate classrooms for reading thermometers and measuring temperature.

Mr. Wizard's World: Change of State

530 MRW

1 VHS videocassette 27 minutes, 1 ditto, 1 teachers guide, *Recommended segments: Seeing Steam; Dry Ice Fog*
Activity segments: Seeing Steam; Dry Ice Fog; Liquid Nitrogen; Effect of Pressure on Ice; Boiling Water in a Closed Container; Carbon Dioxide "Steam Engine". Activities progress from simple to complex scientific principles.

Mr. Wizard's World: Buoyancy and Displacement

530 MRW

1 VHS videocassette 24 minutes, 1 ditto, 1 teachers guide, *Recommended segments: Making a Density Float*

Activity segments: Finding the Volume of Irregular Solids; Magic Medicine Dropper; Archimedes' Principle; Making a Density Float; Homemade Hot Air Balloon; Dancing Spaghetti. Activities progress from simple to complex scientific principles.

Bill Nye Physical Science: Pressure/Buoyancy

530 BIL

1 VHS videocassette, 52 minutes, 2 teachers guides. *Recommended segment: Buoyancy*

Pressure - 26 min - discusses force, vacuums, and holograms.

Buoyancy - 26 min - discusses displacement, neutral buoyancy, and how shape and pressure affect an object's buoyancy.

Bill Nye the science guy: Buoyancy

532 BIL

1 DVD, 26 minutes.

Looks at why objects like boats, helium and balloons are buoyant using a hot air balloon and by going scuba-diving.

Bill Nye the science guy: Pressure

531 BIL

1 DVD, 26 minutes

This episode visits the Hoover Dam and jack-hammers concrete blocks to explore different types of pressure, including underwater pressure.

#3 Water Vapor

All About Solids, Liquids, and Gases

530.4 ALL

DVD 23 minutes + teachers guide

Presents an introduction to the three states of matter, including solids, liquids and gases, and provides information on their characteristics, nature, and behavior, looking at how each one can change into another, and discussing key concepts such as melting point, freezing point, and boiling point.

Adventures of Little Drip

551.4 ADV

1 VHS videocassette 15 minutes.

Explores the water cycle. Story of Little Drip, an animated character who fell off his "water cycle."

Water Cycle Simulator

551.4 WAT

1 model, 19" x 14 1/2" x 4" + guide

Create a water cycle as it occurs in nature. This experimental model creates a continuous water cycle that demonstrates precipitation, collection, evaporation, and condensation. It also graphically illustrates the distillation of water as it changes into gas. All processes are confined within the closed box; the sources of heat and cold are applied to the outside of the box. Model measures 19" x 14 1/2" x 4" and includes a study guide.

All About the Water Cycle

551.48 ALL

1 DVD, 23 minutes.

Describes the stages of the water cycle, visits an underground cavern examining water's role in creating these natural wonders, and shows how scientists are protecting the Earth's water supply. Discussion questions and activities -- Downloadable teacher's guide and investigation data sheet. Earth Science for Children series.

Water Cycle

551.57

1 VHS videocassette, 14 minutes

Stunning visuals illustrate the importance of the endless exchange of water between land, atmosphere, and the sea. Evaporation, condensation, and the effects of the water cycle on the climate and the land are closely examined.

Three-Two-One Contact: Water Cycle - Go With the Flow

551.6 THR

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

Examines the water cycle process of evaporation, condensation, and precipitation. Discusses pollution and acid rain effects on plants and animals.

Water and What it Does (Second Edition)

551.4 WAT

1 VHS videocassette 12 minutes

Explores water as a solid, liquid or a gas; meanings of evaporation, condensation, expansion, contraction, and dissolution.

Primary Science: Evaporation

551.6 PRI

1 cassette, 1 paperback book, 4 rulers, 1 teachers guide

Explores the concept of evaporation and how variables can change the rate of evaporation.

Bill Nye Earth Science: Water Cycle/ Oceanography

551.6 BIL

1 VHS videocassette 52 minutes, 2 teachers guides. *Recommended: Water Cycle*

Water Cycle - 26 min - discusses molecules and water as a gas, liquid, and solid.

Oceanography - 26 min - discusses currents, and salt and other minerals.

Bill Nye Earth Science: Water Cycle

551.48

1 DVD, 26 minutes

Creates a model showing the stages of the water cycle, and shows easy ways to protect the Earth's water supply.

Ground Water Flow Model

551.4 GRO

1 model, 1 vacuum pump, PVC tubing, wood support stands, 2 large plastic bottles with rubber stoppers, 1 ziploc bag (containing 2 syringes, 2 tubes with elbows, 4 plugs, 9 pipette tips), 1 teachers guide notebook.

Introduction to the ground water hydrologic cycle.