See the Earth's constantly changing surface, watch as the great mystery surrounding the dinosaurs unfolds, travel to Mars and explore our solar system with these exciting video resources.

3-2-1 Classroom Contact Scientific Investigation

Laser Videodisc Level I

This double-sided Level I videodisc contains all four 15-minute programs on *Scientific Investigation: How Do You Know; Collect the Data; Dig it Up!; Experiment: and Make a Model.*

Videodisc technology enables students to view the entire program or rapid access to program segments. The Teacher's Guide provides the bar codes, chapter numbers, and frame numbers for all the segments on the videodisc. It also includes a Frame and Bar Code Index so you can easily find any scene or image on the videodisc. You have maximum flexibility in using the materials efficiently and creatively. Level 1 interactive videodiscs do not require any computer links.

Ages 9 to 11
60 minutes, order 4-4079-IN

3-2-1 Classroom Contact Series

For more than a decade kids have watched *3-2-1 Contact* after school. Now you can use a special edition of Children's Television Workshop's popular award winning science series *in school* with *3-2-1 Classroom Contact*, a new classroom version for 4th through 6th graders.

3-2-1 Classroom Contact brings the exciting world of scientific discovery into the classroom. The series has two basic elements...thirty 15-minute television shows specially developed for in-school use and a teacher's guide. Each of these components plays a central role in the total instructional program.

3-2-1 Classroom contact television shows are designed to stimulate student interest in science. Through its live-action sequences, music videos, animations, and on-location mini-documentaries, *3-2-1 Classroom Contact* makes science instruction both engaging and accessible to kids. The Teacher's Guide also presents easy to use demonstrations, hands-on activities, and experiments students can perform in their classrooms.

3-2-1 Classroom Contact emphasizes the process of scientific investigation...the dynamic, inquiry-based methods through which we come to know our world. It portrays science as a cooperative human endeavour, open to all...including your students. The goals of the series are to:

* help children experience the joy of scientific exploration and the satisfaction of accomplishment;
* help to familiarize them with different styles of scientific thinking;
* enhance their abilities to analyze scientific and technical issues;
* motivate them to pursue further scientific activities;
* encourage all children...especially girls and minority students...to develop their scientific and technical capabilities to the utmost.

Each program and the related hands-on activities are designed to teach fundamental concepts in one of four scientific fields:

* Earth Science (7 shows)
* Physical Science (8 shows)
* Life Science (11 shows)
* Scientific Investigation (4 shows)

3-2-1 Classroom contact features young cast members, who act as your students' guides, introducing children to some of the remarkable men and women working at the frontiers of science. They pose provocative questions, conduct tabletop experiments and explore each topic, often by relating it to something concrete and observable in students' lives.

The accompanying guide includes step-by-step lesson plans, background information, program synopsis, blackline masters to accompany hands-on activities and curriculum connections.

Antarctica: Getting to the South Pole

The geographic South Pole is located on Antarctica, a huge continent covered with a thick layer of ice...nine thousand feet thick at the South Pole. Follow the route taken across this icy desert by early explorers, who risked their lives in search of the south Pole.

Code 5-4070

Crystals: They're Habit Forming

Salts, sugars, and snowflakes are crystals. Every kind of crystal has its own specific shape, or habit. But how do crystals form? *Grow* some to find out!

Code 5-4071

Erosion: Earth is Change

Earth's surface is constantly changing. Floods, landslides, hurricanes, erupting volcanoes, and soil-shifting earthquakes can cause sudden, dramatic changes. But gradual action by wind and water over millions of years can also alter the Earth's surface and shape breathtaking landscapes like the Grand Canyon!
Code 5-4072

Fossils: Remains to be Seen

How do we know what dinosaurs looked like when they lived millions of years ago? The answer is fossils...traces of past life preserved in Earth's crust. Fossils help scientists figure out how the dinosaurs lived, and possibly how they died.
Code 5-4073

Ocean Environments: 3-D Sea

Oceans may look the same from the surface, but underneath, different ocean environments offer support to spectacularly different, sea dwelling creatures. The animal life in each environment depends on conditions like the depth, temperature, salinity, and oxygen/carbon dioxide content of the water.
Code 5-4074

Volcanoes: Too Hot to Handle

What comes out of volcanoes? A lot of stuff! Some eject lava, others hot ash. The materials that come from deep within volcanoes raise Earth's surface, make mountains, and create new land masses. The Hawaiian Islands, Japan, and Iceland were all formed by volcanic eruptions. Come along and see Mauna Loa during an eruption and Mount St. Helens after it blew its top.
Code 5-4075

Water Cycle: Go With the Flow

Did you know that the water you drank today, may have been drunk by a dinosaur fifty million years ago? Well its true. All the water in the world is constantly being recycled. It is cleaned in a never-ending cycle of evaporation, condensation, and precipitation. But there's a limit to the amount of pollution the water cycle can handle. Sometimes water gets polluted even before it hits the ground...rain falling through polluted air can form acid rain that may kill plants and animals.
Code 5-4076

Animal Vision: Eye of the Beholder

Ever wondered how the world looks through a frog's eyes or a chameleon's eyes? Here's your chance to see things in a whole new light! Animal's eyes help them survive in their specific environments and basic components of the eye vary in different species. Some animals don't see colours at all; some see only a few; and some see parts of the spectrum we can't...those of infrared or ultraviolet light.
Code 5-4077

Antarctic Animals: Living on the Edge

Only a few animal species live in Antarctica. On the ice-covered land mass, air temperatures dip to below minus one hundred degrees F. Near freezing water is toasty by comparison. So most animals live in the chilly ocean water surrounding the continent. Animals like penguins and seals are specially adapted to survive in this otherwise in-hospitable environment.
Code 5-4078

Australian Mammals: Life Down Under

Australia is home to many unique animals including some unusual mammals like the kangaroo, the koala, and the platypus. But why do all these strange, unusual creatures live in just one place? It all started a long, long time ago in a place called Gondwanaland.
Code 5-4079

Bioelectricity: The Shocking Truth

All living things...people, animals, and plants...produce electricity. Each cell in the human body works like a tiny battery. We use the electricity to send messages to and from our brains. Learn how scientists are using the body's own electrical impulses to help amputees utilize artificial myoelectric limbs!
Code 5-4080

Classification: The Order of Things

Living things can be grouped, or classified, according to common traits. Doing so helps us find out how species are related...the more traits they share, the closer the relationship. Knowing about such common traits even helped a scientist solve the mystery of a plane crash!
Code 5-4081

Digestion: The Inside Story

Some animals eat plants; some eat meat; and some eat plants *and* meat. Whatever an animal eats, its teeth get the digestive process underway. But where does food go from there? Find out by watching the on-camera dissection of a pig's digestive system which shows how the process works in him and in you.
Code 5-4082

Flying Animals: Winging It

How is a clam like a polar bear? Neither has wings, so neither can fly? But lots of other animals do have standard flying equipment...wings. Some are flying birds, some are flying mammals (bats), and some were flying reptiles (pterosaurs) that became extinct more than sixty million years ago. Even though these creatures may look different, their wings have a lot in common.
Code 5-4083

Food Chains: Eat and Be Eaten

All animals...including humans...depend on plants because there's a plant at the beginning of every food chain. For example, sea urchins thrive on kelp, a water plant, and sea urchins, in turn, are food for sea otters. Find out how marine biologists in California observe the kelp/sea urchin food chain and sometimes intervene to maintain this delicate balance.
Code 5-4084

Innate and Learned Behavior: How do They Know That?

Why does a spider always weave the same kind of web instead of getting creative from time to time? Because the web-spinning is innate...the animal knew how to spin webs when it was hatched. Humans have innate behaviours too, such as crying and swallowing, but there are lots of things animals ... including humans...must learn how to do.
Code 5-4085

Social Behavior: Living in Groups

Although most animals are solitary creatures, some live in groups: herds of bison and schools of fish live in loose assemblies of hundreds; prides of lions and troops of baboons live in small but organized groups; colonies of ants and bees live in highly organized groups of thousands.
Code 5-4086

Training Animals: Learning New Tricks

What do pigs, dolphins, and monkeys have in common? they are animals that can be trained to do things...sometimes just for fun; sometimes to help humans. And they're mammals...the animals best able to learn. When working with animals, trainers break down tasks into steps that are taught one at a time.
Code 5-4087

Air is Matter: Air is There

Air is matter that really matters. It's everywhere, throwing its weight around by holding things up or knocking them down. But wherever it is and whatever it does, air has volume and mass that make it matter!
Code 5-4088

Friction: Getting a Grip

What do bobsleds, roller coasters, motorcycles, skis, cars, planes, snakes, and people all have in common? They all need friction to get 'em going and to slow 'em down! Friction is the resistance encountered when one thing moves over the surface of another. Treads on tires and shoes create friction so people can "get a grip!"
Code 5-4089

Generating Electricity: More Power to You

How can you generate electricity? Simply. Just move a magnet past a wire or a wire past a magnet and you'll get an electric current. Huge power plants use falling water, wind or steam to rotate coils of wire inside giant magnets to create enough electricity for all of us.
Code 5-4090

Gravity/Weightlessness: Measuring G's

Gravity constantly grabs things and pulls them toward Earth's centre. In fact, that's why things have weight. But how do you get into a weightless situation? Try riding a roller coaster...or even an elevator!
Code 5-4091

Light and Color: Living Color

Why can't we see colours of objects in the dark? Because light has to hit the object and reflect its colour back to our eyes. Hard to visualize? Well watch, as simple animations and colourful experiments take us out of the dark and into the light!
Code 5-4092

Motion and Forces: Play Ball

An object can't move unless acted upon by some force that sets it in motion. We apply force when we hit a baseball or shoot a basketball through a hoop, but there's another force that's working all the time...gravity. You'd be surprised at what you can do if you know that forces like gravity work in predictable ways. For example, softball pitchers use gravity to throw pitchers that trick batters!
Code 5-4093

Refraction: Facts of Light

A ray of light ordinarily travels in a straight line, but it can be refracted, or bent, when it enters a new medium at an angle. It's important to be able to bend light. Lighthouses, for example, use lenses to bend light from one bulb and send it far out to sea to warn sailors of rocks ahead.
Code 5-4094

Surface Tension: BUBBLE-ology!

Can anyone blow a soap bubble that's non-spherical? No. Because of surface tension, soap film sticks together and always forms a sphere. Experiments with soap bubbles help kids learn more about what's holding the bubbles all together...surface tension.
Code 5-4095

How do You Know? Collect the Data

You can get a lot of information from books, data banks, and even from TV. But sometimes you just have to get up, go out into the field, and observe people and things in order to collect data. Meet some scientists collecting data deep in the woods and deep underwater.
Code 5-4096

How do You Know? Dig it Up!

How do archaeologists find out what prehistoric humans ate? The scientists become detectives, excavating ancient trash heaps and hunting for animal bones, shells, and plant pollen that give clues to what people ate. But for direct evidence, scientists analyze fossil feces. Seeds and plant pollen that are trapped and preserved in thousand-year-old dung reveal what was eaten!
Code 5-4097

How do You Know? Experiment!

Is every sound a language? Do parrots speak English? And who left that message on the answering machine? You can try to guess the answers to these questions, or you can set up controlled experiments designed to let you know when you've found the right answers!
Code 5-4098

How do You Know? Make a Model

Lots of people put together model planes or ships for fun. But models aren't just toys, they're scientific tools! Models can help us test theories, learn about things that are very small, very big, very far away, or that lived very long ago. We can even calculate a dinosaur's weight by using a model of the creature!
Code 5-4099

Friction: Getting A Grip

What do bobsleds, roller coasters, motorcycles, skis, cars, planes, snakes, and people all have in common? They all need friction to get 'em going and to slow 'em down! Film clips demonstrate friction (or lack of it) in action, and encourage comparing different surfaces.
Code 5-4089
Ages 9 to 11
450 minutes, order 5-40700-IN

The Age Of Mammals

Stop-action animation and live action define the characteristics of mammals then take viewer on fascinating tour of the Cenozoic era. Vivid recreations of early mammals and environment.

Open caption version available.

Ages 6-11, Ages 12-18
10 minutes, order 1-9497-IN

Asteroids And Comets: Visitors From Space

Expanding Frontiers: The Exploration Of Space Series

The possibility of an enormous asteroid crashing into Earth is not just the stuff of science fiction, but was actually a frequent occurrence in the distance past. Such prehistoric collisions triggered the development of life itself, but a similar event today could possibly bring about the end of our very existence.

Ages 12-18, Ages 16 to Adult Post Secondary
33 minutes, order 8-1132-IN

Backyard Safari Series

The Backyard Safari Series

An engaging series that introduces kindergarten to grade 2 students to topics in science and natural history.

The primary goal is to excite children, particulary girls and children of colour, to investigate the natural world and develop positive connections with scientific practice. A complementary goal is to help empower all children to see themselves as "scientists" who can turn off the television, step outside, and learn directly from the world around them.

Your guides on this safari are a charming host named Celia, her funny sidekick Bud, and her animated "3-D" friend Crinkleroot.

That's My Baby (Animal Babies)

Everyone starts out as a baby, but not all babies need the same kind of care as they grow toward self-sufficiency.

Learn how different animals are born; observe baby birds hatch, watch a baby elephant walk. Young scientists explain how they take care of their baby pets, and demonstrate how to make a Caretaking Chart.
Order 5-4575, 30 minutes

Birds

Celia and Bud discover that birds are at home in a variety of environments, not just in trees. They learn how birds; bodies are suited to their climate and habitat.

Crinkleroot shows how birds have different songs and how they use their appearance for different purposes. For fun, children show how to make a bird feeder from a bleach bottle and how to go birdwatching.
Order 5-4576, 30 minutes

Butterflies

Celia's monarch butterfly has hatched and she is about to set it free. Before she does, she learns all about the life cycle of a butterfly.

She visits a butterlfy expert who teaches her about the "tricks" caterpillars use to fool their enemies, the functions of the parts of a butterfly, and how to tag a monarch.
Order 5-4577, 30 minutes

Clouds

Celia and Bud lok for "cloud pictures" in the sky and identify different types of clouds. Characteristics of low, puffy cumulous clouds; flat, wide stratus clouds, and high, wispy cirrus clouds are described.

Celia demonstrates that coulds are made from hot, moist air meeting cold, dry air, and explains how air drafts cause turbulence. Crinklerook shows how clouds influence the weather through storms, snow, hail, hurricanes and tornadoes. Viewers also see how to set up a window weather station using a thermometer, pinwheel, and a jar.
Order 5-4578, 30 minutes

Colour

Celia explores the uses of colour in nature. She discovers that some animals use colour as camouflage to protect themselves.

Other animals use colour to attract mates, or protect their young. The colouration of yet other animals warns their enemies that they are dangerous. She learns that nature may even use colour to perpetuate itself.
Order 5-4579, 30 minutes

Dinner Tools (How Animals Eat)

It's dinner time! Bud tries to get the animals in the park to use his tools to get their food and eat, but Celia helps him understand that animals have their own tools, such as teeth and tongues, to get their food.

A butterfly stretches its proboscis into a flower, a giraffe licks off leaves with its long tongue, and an anteater digs out its dinner with its long snout. Viewers see both a squirrel and shark use their teeth as tools. A young scientist teaches Crinkleroot to make a pine cone bird feeder.
Order 5-4580, 30 minutes

Dinosaurs

Special investigator Celia and her friends, Crinkleroot and Bud, search for clues to the mystery of dinosaurs. Viewers learn about the work of a paleontologist, how fossils reveal the sizes and types of dinosaurs, and how dinosaur traits can be compared with those of various living animals.

Celia compares a plaster cast of her own foot to that of a tyrannosaurus rex to illustrate how tall this dinosaur was when it roamed the earth 65 million years ago. Crinkleroot and a young scientist demonstrate how they can dig for their own make-believe fossils and create their own dinosaurs from foil, wire and clay.

By following the trail of fossilized remains and using a little imagination, viewers discover the ancient world of dinosaurs!
Order 5-4581, 30 minutes

Home Sweet Home (Animal Homes)

Animal builders create homes that are just right for them. They use materials from things in nature that are around them, and they have the right tools within their physical makeup to build their homes.

Viewers have the opportunity to see how a beaver and a weaver bird build their intricate homes. Celia gets a first-hand look at the plants and animals that live in a pond neighbourhood on a tour with naturalist and author Hope Ryden. A young scientist shows Crinkleroot his bird nest building kit.
Order 5-4582, 30 minutes

Paper

Celia and Bud show that paper has so many uses in a variety of forms that we take it for granted.

In a visit to a paper mill, viewers see how paper is made from trees. A papermaker shows Celia how to make paper from other materials, such as old sweaters, jeans, rope and feathers.

Viewers learn the importance of recyling paper and see how their old paper is made into new paper. A young scientist demonstrates how to make paper using a few simple ingredients.
Order 5-4583, 30 minutes

Rocks and Minerals

Viewers learn how rocks are created and their many uses. Celia and Bud have a contest to see who can find the most beautiful rock.

During her search, Celia learns that rocks have a variety of shapes, sizes, colours, and textures. A jewelery maker shows Celia how he turns a mineral found in its natural state into a beautiful gemstone.

A young scientist combines science and art by demonstrating how to make sand designs in a jar. Crinkleroot reveals where to find rocks in different places and invites Celia to crack open a rock that is deceptively ordinary on the outside, but incredibly beautiful on the inside.

The various uses of rocks and minerals in everyday life - from pencils to skyscrapers - are highlighted.
Order 5-4584, 30 minutes

Trees

Celia and Bud plan a tree-planting party for an oak seedling. Viewers learn the functions of the various parts of a tree, including bark, roots, branches, and leaves.

Characteristics that differ from tree to tree, such as fruit, needles, and size, are discussed. Crinkleroot demonstrates how different parts of a tree are used by wildlife.

Celia meets a horticulturalist who explains how to care for a tree by cutting off diseased portions and spreading mulch around the trunk. By wearing a blindfold and "hugging" a tree, a young boy shows how much there is to discover about a tree just by touch.
Order 5-4585, 30 minutes

Water

In the heat of the day, Celia enjoys cooling off with a glass of water and shows how other animals use water to keep cool. Viewers learn why animals and plants have different ways of getting water they need in order to live. They will also see that water exists in different forms - liquid, solids and gases.

Celia boards a boat and, with the help of marine biologists, discovers a few of the many creatures that live in water, such as a sea star, lobster, turbot and octopus.

Young scientists demonstrate how plants soak up water in an experiment using carnations and food colouring, and show viewers how to make an underwater magnifying glass.
Order 5-4586, 30 minutes

Working Together

Celia visits her friend bud who is frantically trying to help customers at four different food-cart stands all by himself. As she tries to find some help for him, both she and Bud learn the importance of working together to accomplish a big project. Bud recruits help from his friends to work a the carts, and by working together, they serve all the customers quickly and easily.

Crinkleroot shows that insects, like people, work together to accomplish things. Termites, ants, and bees use the concept of working together to build and sustain their colonies. Young scientists demonstrate how to set up an ant farm in a jar and how to make beeswax candles.
Order 5-4587

Teacher's Guide

A 63-page reproducible guide is included free with the purchase of the series. Additional copies are available for $18.95
Order 5-45750

Early Years, Ages 6 to 8
minutes, order 5-45750-IN

Bringing The Rain To Kapiti Plain

The Reading Rainbow Series

Earth and Space Systems, Grade 2: Air and Water in the Environment - Basic concept: identify and describe forms of moisture in the environment; identify the factors that cause things to dry quickly or slowly.

Grade 5: Weather - Basic concept: weather and climate

A rainy day offers opportunities to explore creative pastimes and to appreciate the wonder of weather. Who says rainy days can't be fun?

LeVar plans an adventure filled day around the weather, including a look at the latest explanations for thunder and a big splash in a puddle to the tune of a lively song, "Puddle Hoppin'". The feature book, narrated by James Earl Jones, tells of a young African boy who brings rain to his dry and thirsty pastures. There's no such thing as dull weather as we share in an action-packed aerial chase for thunderstorms at the National Centre for Atmospheric Research. LeVar explores weather predictions and shows how to make your own rainbow. Program Number 4.

Review Books: *The Cloud Book* by Tomie de Paola; *Peter Spier's Rain* by Peter Spier; *A Story A Story* by Gail E Haley.

Ages 6-11
30 minutes, order 5-1013-IN

Come A Tide

The Reading Rainbow Series

Grade 5 - Weather; Basic concept: recognize large-scale and local weather systems, e.g. storms

Weather affects all our lives; severe weather requires special precautions.

This delightful book by George Ella Lyon, read by Dixie Carter, tells the story of one quirky family's adventure during a spring flood. LeVar takes a look at dramatic weather ... from blizzards to tornadoes, and everything in between. A news reporter gives an eyewitness account of Hurricane Hugo and the courageous people who weathered the storm. Program Number 86.

Review Books: *Storms* by Seymour Simon; *Tornado Alert* by Franklyn M. Branley, illustrated by Guilio Maestro; *Weather* by Rena K. Kirkpatrick, illustrated by Janetta Lewin.

Ages 6-11, Closed Captioned
30 minutes, order 5-4053-IN

Destination Mars

Join two young space explorers, Michael and Michelle, on an exciting journey to Mars to learn more about this mysterious "red planet."

Examine its mineral and atmospheric content and observe the unusual geographic formations on its surface, including its soil element and hope for sustaining life.

Ages 6-11
21 minutes, order 1-8571-IN

Digging Up Dinosaurs

The Reading Rainbow Series

Grade 4: Rocks, Minerals and Erosion; Basic concepts - identify and describe rocks that contain records of the earth's history, and explain how they were formed

The great mystery surrounding the dinosaurs continues to fascinate; how the giant creatures evolved, lived and disappeared over 65 million years ago are questions that are still intriguing scientists.

There's a great deal of mystery surrounding the life and death of dinosaurs, but sleuth LeVar is just the leader for a fact-finding expedition. Inspired by the book which tells how dinosaur bones are uncovered and reassembled, LeVar decides to go on a fossil hunt of his own. With his trusty "Jeeposaurus Wreck," he takes us to Dinosaur National Park, where expert Linda West digs up some dinosaur secrets. The program is punctuated with dinosaur jokes told by a pretty saur-y comic (the voice of Jerry Stiller), from the book *Tyrannosaurus Wrecks: A Book of Dinosaur Riddles* by Noelle Sterne, illustrated by Victoria Chess. Program Number 6.

Ages 6-11
30 minutes, order 5-1015-IN

Dinosaur; From Toe Bone To Complete Skeleton

Newton's Apple

Three years in the making, this Newton's Apple program follows the gargantuan, 10,000-piece skeleton of a diplodocus dinosaur from its discovery in Wyoming to its unveiling in the Science Museum of Minnesota in St. Paul.

Ages 12 to 14
30 minutes, order 5-4998-IN

Dinosaurs: The Terrible Lizards (Revised Edition)

A vivid view of what dinosaurs looked like, what they ate, and how they lived and died. Special effects with dimensional models moving in miniature sets bring the age of dinosaurs to realistic life. A map of dinosaur fossil finds, and animation, place the age of dinosaurs in relation to other reptiles, fish, amphibians, mammals, birds, and humans.

The program features a battle sequence between a Styracosaurus and a Tyrannosaurus Rex...as a volcano erupts in the background.

The material is presented vividly and will go a long way toward exciting youngsters to learn more about these interesting reptiles. Science Books and Films

...Ominous music, legible captions, and comparative overlays enhance the motion of these ever popular creatures. Booklist, American Library Association

This lively, animated film shows the evolution of dinosaurs, identifies major types, and describes their physical characteristics...An interesting film, useful for individual or group viewing. School Library Journal

Open caption version avaiable.

Ages 12-18, Ages 6-11, Adult
10 minutes, order 1-9833-IN

Exploring Our Solar System

Grade 6 - Space; Basic concepts covered: all

Recently, sophisticated space probes have provided a wealth of new information to help unlock the mysteries of our solar system. This program combines live action photography, breathtaking footage from space, artwork, and three-dimensional models to present much of that new information in an exciting introduction to the solar system.

The program illustrates how the sun's gravitational pull causes the elliptical orbits of the nine planets. It explains how the sun's enormous mass and extreme temperatures create sunspots, prominences, and solar flares; and it describes how the sun applies the energy we need on Earth.

Each planet's surface is described along with its atmosphere, distance from the sun, temperature, rotation, orbit, and moons. The Voyager space probe has provided amazing new glimpses of the outer planets including the discovery of additional moons around Saturn and Jupiter and faint rings around Jupiter and Uranus.

In addition to the planets and their moons, billions of smaller objects orbit around our sun. The program describes the composition and movement of asteroids, comets, and meteors. Theories on the origin of the solar system, life on other planets, and the existence of other solar systems in the universe are presented. *Also available in CD-ROM and Video Laserdisk*

Ages 9 to 11, Ages 12 to 14
15 minutes, order 1-8060-IN

Grand Canyon Chronicles, Precambrian And Paleozoic Eras

Grade 7: The Earth's Crust; Basic concepts: all

Among the most remarkable of Earth's wonders it is also a giant geological laboratory. Walls bear evidence of forces and events of the last 2 billion years. Orson Welles narrates.

Ages 12 to 14
24 minutes, order 1-9698-IN

Grand Canyon Chronicles, Mesozoic And Cenozoic Eras

Grade 7 - The Earth's Crust; Basic concepts: all

Reveals clear evidence of our recent past - the last 225 million years! - during which time dinosaurs reign and the Age of Mammals began. Narrated by Orson Welles.

Ages 12 to 14, Ages 15 to 18
28 minutes, order 1-9699-IN

Hill Of Fire

The Reading Rainbow Series

Grade 4 - Earth and Space Systems: Basic concept: identify natural phenomena that casues rapid and significant changes in the landscape

An exploration of one of Mother Nature's most awesome spectacles, the volcano, reveals how the Earth was created.

Rumbling earthquakes, molten lava, fountains of fire - a volcano is born in a poor farmer's cornfield in the feature book by Thomas P. Lewis. Based on the true story of the eruption of Paricutin volcano in Mexico. Host LeVar Burton travels to Hawaii, home of one of the most active volcanoes in the world. At Volcanoes National Park, LeVar is perched 2,000 feet from a major eruption of Kilauea volcano! For this show, Reading Rainbow's crew captures spectacular original footage of Kilauea's eruption in March, 1985. Visiting other parts of the Big Island of Hawaii, LeVar discovers that the Earth itself is a living thing creating land through volcanoes. Destructive yet creative, the fiery beauty of an eruption also inspires artists to create beautiful raku pottery. Program Number 23.

Review Books: *Emma's Dragon Hunt* by Catherine Stock; *Ed Emberley's Science Flip Books* by Ed Emberley; *The Ramarindo Puppy and Other Poems* by Charlotte Pomerantz, illustrated by Byron Barton.

Ages 6-11
30 minutes, order 5-1032-IN

Literacy & Science Grade 5

Literacy & Learning Series

One of the biggest challenges facing content area teachers is making sure that students really understand what they are reading.

It's not enough just to be able to read the words on the page—students really need some guidance from the teacher to read effectively. While they're reading, students must be able to make connections between the new material they're encountering and what they already know about the topic. And after they read, they must be able to explain, in their own words, what they've gained from the reading.

"Literacy and Science" features two literacy strategies. *SQ3R* gives students five steps to develop effective study habits. *Concept Mapping* allows teachers and students to organize concepts and determine the relatins between concepts. Both SQ3R and Concept Mapping take the students to higher levels of thinking.

Although the strategies are demonstrated in a science setting, they can be used in any content area across the curriculum—and with any grade level.

Ages 6-11, Professional
19 minutes, order 5-4940-IN

A Magical Field Trip To The Dinosaur Museum

Rosie whisks her friends Chris and Nicole away for a tour of the Museum of Natural History to walk amidst the skeletons of the giant reptiles and learn everything there is to know about dinosaurs.

Ages 6 to 8, Ages 9 to 11
15 minutes, order 1-8176-IN

Magnetism

The Real World Science Series

This program presents general information about magnetism as well as concepts about atoms and the relationship between electricity and magnets. After participating in this program students will be able to identify magnetic materials, explain the attracting and repelling properties in magnets, create simple, temporary magnets, and appropriately use identified vocabulary in speaking and writing activities.

Ages 9 to 11
18 minutes, order 1-2572-IN

Newton's Apple: What's The Secret Volume 2 Cd-rom

Ages 6 to 8, Ages 9 to 11
minutes, order 5-4574-IN

Prehistoric Mammals

Take a fascinating tour of the Cenozoic Era through this vivid re-creation of its environments and prehistoric mammals, including Diatryma, Baluchitherium, and saber-toothed cats.

Questions regarding our ability to adapt and survive without destroying all life on earth are raised in the program's final moments with the appearance of Neanderthals.

Ages 6 to 8, Ages 9 to 11
10 minutes, order 1-8814-IN

Rainforest Ecologist: Janalee Caldwell, Biography

The Wonderwise Women In Science Series

Ages 9 to 11
minutes, order 5-45921-IN

Science Multimedia Clips Cd-rom

These image files, from the award-winning AIMS Multimedia audiovisual library, may be used for teacher and student multimedia presentations. Compatible with popular authoring programs, including HyperStudio and Director. Includes mammals, reptiles, birds, fish, amphibians, insects, dinosaurs, space, biology, weather, and the human body. Licensed for non-commerical use only.

Includes 165 Quick Time Movies and 407 Still Images

All Ages
minutes, order 1-1009-IN

The Solar System

The Real World Science Series

Viewers are introduced to ancient astronomers, telescopes, observatories and space exploration and will discover exciting facts about planets, orbits, gravity, revolution and rotation. The program also features discussions about the sun, comets, asteroids and meteors.

Ages 9 to 11
minutes, order 1-2286-IN

Space Case

The Reading Rainbow Series

When you think about it, there are millions and millions of miles of outer space and it's interesting to guess what kinds of life forms might exist out there.

What would it be like to meet beings from another planet? In *Space Case,* by Edward Marshall, a young boy has this very opportunity one spooky Halloween night. LeVar sends a special invitation to all the aliens who might be watching Reading Rainbow to visit the earth, and shows them some of earth's wonders. Among the varied and spectacular places visited are the natural beauty of the majestic cliffs in Carmel, California; the Lick Observatory on Mount Hamilton, California, where astronomers use a gigantic telescope to scan the skies; and Arecibo, Puerto Rico, for an introduction to the world's largest radio-telescope. Program Number 31.

Review Books: *Astronuts: Space Jokes and Riddles* compiled by Charles Keller, illustrated by Art Cummings; *Is There Life in Outer Space?* by Franklin M Branley, illustrated by Don Madden; *Legend of the Milky Way* retold and illustrated by Jeanne M Lee.

Ages 6-11
30 minutes, order 5-1040-IN

Top Flight

From the Wright Brothers to "The Right Stuff," this program celebrates the milestones of aviation and honours heroes and heroines of the air, exploring the past, present and future of military aviation, leaving viewers with a bright vision for the future.

Ages 12 to 14, Ages 15 to 18
46 minutes, order 1-8724-IN

Weather And Climate

The Real World Science Series

Learn about the relationship between water, air and heat and how they interact to make weather happen. The terms atmosphere, condensation, evaporation, and precipitation are explained through animated diagrams.

Ages 9 to 11
minutes, order 1-2284-IN

Weather: Air In Action Series (2nd Ed)

The Weather: Air In Action Series (2nd Ed)

Grade 5 - Weather: Covers most of the specific expectations and basic concepts of this portion of the curriculum.

Provides information that is as interesting as it is vital to a clear understanding of our planets weather system.

Temperature, Pressure, and Humidity

Explains the parts of the weather system: solar energy, air, water, and earth, and the effects of each on temperature and humidity.
14 minutes, order 1-8401

Wind, Fronts, and Storms

Weather fronts and wind, clouds, tornadoes and hurricanes, and the various forms of precipitation are detailed.
16 minutes, order 1-8402
Ages 9-14
30 minutes, order 1-84010-IN

Women In Science

Meet three accomplished scientists as they describe their work activities, goals, educational backgrounds, professional responsibilities and personal insights that led them into their respective fields of marine biology, industrial forestry, and astronomy.

Red Ribbon Winner, American Film & Video Association.
Ages 12-18, Adult
20 minutes, order 1-8517-IN

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