

Learning Resources

All About Animals Series

Grade 2 - *Growth and Changes in Animals*; *Basic concepts: identify and describe the major physical characteristics of different types of animals.*

Six programs which introduce children to the amazing world of animal behaviour and adaptation. Concepts are introduced in songs children learn to sing, and key words are captioned on screen to expand reading vocabulary.

Birds

Birds are shown nesting, caring for their young, flying, and moving on the ground. Their feathers and other physical characteristics are examined in fascinating detail. This portrayal of birds is designed to stimulate children's curiosity and help them develop an awareness and understanding of birds in their own environment. Order 1-4013, 10 minutes

Fish

The characteristics of fish are related to behaviours such as movement, adaptation, and defense. Artwork, music, and vivid underwater photography make adaptation and behaviour clear to young viewers. The program provides a unique close-up view of fish as they move in their environment. Order 1-4010, 10 minutes

Multimedia magic keeps students coming back for more. Quizzes, tests, activities. Includes testing option keeps track of achievement. Each designed to develop memory, concentration and understanding.

Mammals

Both familiar and exotic animals illustrate the characteristics of mammals. Music, diagrams and engaging photography introduce and reinforce concepts of animal adaptation and behaviour. Movement, building or seeking shelter, and caring for offspring are shown. Order 1-4004, 10 minutes

Reptiles

The program investigates the physical characteristics and behaviour of representative reptiles, and encourages children to use the science skills of observing, classifying, analyzing, and generalizing. Order 1-4006, 10 minutes

Insects

Children will learn that there are helpful insects like the bee and silkworm, and troublesome insects like the mosquito and fly. Through macrophotography, the program shows that all

insects have three main body parts, six legs, and skeletons on the outside of their bodies. Insects can be found anywhere on our planet, from the most extreme heat to the deepest cold, in water, on land, and in the air. Order 1-9804, 12 minutes

Amphibians

Music, artwork and lively nature photography give a vivid definition and illustration of the characteristics and behaviours of various amphibians. Shows clearly how amphibians live part of their lives in the water, and part on land. Order 1-4012, 10 minutes

Each title available in VHS, CD-ROM or Laser Videodisc
Early Years, Ages 6 to 8 minutes, order 1-40100-IN

The American Chronicles Series

Utilizing original source material that is a part, as well as a chronicle, of history, Eric Sevareid provides an important

perspective on America's past in this series of curriculum-based history programs spanning 1918 to 1961.

Between the Wars (1918-1939)

An era of sports heroes and film stars; automobiles everywhere; floods and dust storms; the *Hindenburg*; the Depression sweeps America. 25 minutes, order 1-9813

Seeds of Discord (1933-1936)

Workers unite; Hitler and Mussolini rise; Gandhi leads India; Batista in Cuba; Mao takes China into civil war; Japan in Manchuria; FDR allies the U.S. with Russia. 24 minutes, order 1-9814

Prelude to War (1935-1939)

Hughes' flight around the world; Hitler rallies German youth, imprisons Jews, and forms the Axis; Japan conquers one-third of China. Russia signs peace pact with Hitler. America begins building for war. 22 minutes, order 1-9815

The Darkest Hour (1939-1941)

Hitler invades Poland; England and France declare war on Germany; FDR pledges to keep America out; Tojo allies Japan with Germany, and attacks Pearl Harbor. 25 minutes, order 1-9816



Learning Resources

The Turning Point (1941-1944)

MacArthur in the Pacific; Hitler declares war on America, loses on the Russian front; Eisenhower and Allies victorious; air attacks on Germany; Italy surrenders; Battle of Midway.

23 minutes, order 1-9817

End of the Ordeal (1943-1945)

D-Day invasion at Normandy; Yalta Conference; Germany surrenders; Ike returns as hero; Europe left devastated; Truman, Hiroshima and Nagasaki.

26 minutes, order 1-9818

Out of the Ashes (1945-1949)

Nuremberg Trials: relief for war-torn Europe; "Cold War" begins; FBI investigates communist supporters; Mao Tse-tung establishes communism on mainland China. Closed captioned version of this title available.

28 minutes, order 1-9819

Policing the Peace (1948-1951)

Israel created; India wins independence; Gandhi assassinated; Haile Selassie inspires African independence; North Korean troops cross into South Korea, U.N. peacekeeping force is dispatched; Arab nations increase power; Israel invades Sinai.

28 minutes, order 1-9820

The Age of Anxiety (1952-1958)

Eisenhower elected; Korean War ends; Hilary climbs Everest; Stalin dies; Khrushchev develops "good-guy diplomacy"; arms race begins; America unveils the Nike surface-to-air missile; Castro's rebels challenge Batista; Red China takes Taiwan's small islands near the mainland.

28 minutes, order 1-9821

The Fragile Balance (1955-1961)

Early warning systems and SAC bombers rendered obsolete by Russia's ICBMs; U.S. responds with nuclear subs; U.S. tests effects of radiation on troops and equipment; Hungarians revolt; Russia puts Sputnik into orbit; U.S. spy plane shot down over Russia. Kennedy defeats Nixon for Presidency.

28 minutes, order 1-9822

All titles in the series are available in VHS, CD-ROM or Laser Videodisc.

Ages 12-18, Adult minutes, order 1-98130-IN

Amphibian Egg Development

Grade 8: Life Systems

Fascinating microphotography and animated graphics show the development of a tiny salamander egg from a single cell to larva.

Key terms for each phase are provided, and the changing embryo is viewed from several angles, providing a clear look into this intricate life process.

Available in CD-ROM and VHS

Ages 15 to 18, Post Secondary - Introductory
11 minutes, order 1-8266-IN

Animal Life In A Tidepool

Grade 4 - Habitats and Communities; basic concept; animals and plants live in a specific habitat because they are dependent on it and adapted to it.

Grade 6 - Diversity of Living Things: basic concept: compare the characteristics of different kinds of arthropods.

Outstanding nature photography vividly depicts the wonder of life in these delicate communities, uncovering many fascinating animals, including sponges, anemones, tubeworms, barnacles, mussels, sea urchins, starfish, sea cucumbers, limpets, slugs, and crabs. Includes brief discussion of ocean tides. Also available as a Level I laser video disc.

Ages 9-14
12 minutes, order 1-8384-IN

The Animal Life Series

The Animal Life Series

Grade 2: Growth and Changes in Animals: Basic concepts: Identify and describe the major physical characteristics of animals;

behavioural characteristics that enable animals to survive; classify a variety of animals; adaptation to environment.

This introduction to the study and classification of animals, by award winning wildlife cinematographer Wolfgang Bayer, illustrates the web that unites all life on earth, and reminds students of their own roles in the scheme of nature.

How We Classify Animals

Surveys the diversity of animal life on Earth, illustrating the taxonomic system that scientists use to classify animals. Available in VHS and Laser Videodisc formats
14 minutes, order 1-8205

How Animals Survive

Illustrates physical and behavioural adaptations animals have evolved in order to survive. Available in CD-ROM, VHS, or Laser Videodisc
15 minutes, order 1-8206

Animal Communities

Explores relationship of animals to their surroundings and their interactions with each other. Available in CD-ROM, VHS or Laser Videodisc
14 minutes, order 1-8207
Ages 9 to 11, Ages 12 to 14 minutes, order 1-82050-IN



Learning Resources

Atoms And Molecules

Atoms and molecules, two of the most basic units of matter, are examined in this program by means of animated graphics, charts, graphs, demonstrations and experiments. Models of three simple elements, hydrogen, helium, and lithium, are used to explore the structure of atoms. The various features of subatomic particles are described and graphics are used to depict the 'electron cloud' model currently used by scientists.

The arrangement of electrons into 'shells' grouped around the nucleus according to their amount of energy is fully outlined. An examination of the shells' chemical properties leads to a discussion of energy levels. The program explores the forces that push electrons to higher energy levels, causing them to leave the nucleus's field of attraction. Further animated experiments illustrate various processes which occur in the atom, how atomic mass and numbers are calculated, and an illustration of a simplified periodic table showing how elements composed of similar chemical properties form a group, or 'period'.

Ionization, dissociation, recombination, atomic numbers and the ordering of elements within the periodic table are demonstrated and explained. Also available in laser videodisc and CD-ROM

Ages 12-18
22 minutes, order 1-8271-IN

Beneath The Caribbean

Grade 4 - Habitats and Communities. Grade 6 - Diversity of Living Things

Unlike the fertile waters of temperate oceans, the Caribbean Sea is warm and clear - and nutrient-poor, due to the scarcity of plankton and suspended particles. In order for life to flourish in these harsh tropical conditions, sea creatures have evolved complex methods to capture food.

Spectacular footage illustrates how mangroves and coral reefs form the bases of the tropical ocean ecosystem. The program instills respect and understanding for creatures of the seas.

Available on CD-ROM and VHS

Ages 9-14, Adult
23 minutes, order 1-8882-IN

The Biology Essentials Cd-rom Series

The Biology Essentials Cd-rom Series

A complete biology curriculum. Each CD-ROM or LaserDisc contains video chapters (25 minutes total); random access, interactive browsing; interactive quiz; bulletin board; test with record keeping; interactive glossary; teacher management system (password protected).

The teacher management system allows teachers to write and edit quiz questions; write and edit test questions; track student scores; create and edit bulletin board information; print quizzes, tests, scoring keys and bulletin boards; and print class rosters with scores by name or code.

The Human Body: The Ultimate Machine

Details the functioning of each of the human body's major systems including the muscular, circulatory, respiratory, digestive, skeletal, urinary, endocrine, lymphatic, nervous, and reproductive systems.

Realistic 3-D animation, exciting footage of actual surgical procedures, and microphotography take students on a concise and incredible journey through the human body.

Also introduces students to how physicians obtain a wealth of information about patients through observation and simple tests.

CD-ROM only, order 1-8997

Cells: The Building Blocks of Life

Introduce cells as the building blocks of life and the two basic types of cells - eukaryotic and prokaryotic.

Detailed 3-D animation illustrates the major components of prokaryotic cells including the nucleus, nuclear membrane, gelgi bodies, microtubules, microfilaments, and cytoplasm.

The importance of the cell membrane in the processes of diffusion, osmosis, and active transport are illustrated. Cellular processes such as respiration, photosynthesis, and reproduction are also discussed.

CD-ROM only, order 1-8998



Learning Resources

The Web of Life: Producer to Predator

A visual excursion into the world of energy pyramids, food chains, and nutrient cycles.

Ecosystems serve as examples for discovering how organisms adapt to unique environments. Abiotic factors such as temperature, precipitation, nutrients and geography play a critical role in the survival and evolution of populations in these environments.

Water, carbon, nitrogen, and phosphorous cycle between the biotic and abiotic worlds, and in doing so, transfer energy from the sun to fuel life. Life takes enumerable forms in the organisms of Earth, and these organisms fill their niches in remarkable ways. The variation of these organisms and the relationship between them are investigated.

The niche of humankind is also explored. Will our creativity lead to survival or extinction? Wander through these ecosystems and consider the options. CD-ROM only, order 1-8999

Genetics and Heredity: The Blueprint of Life

Illustrates the structure of DNA and the processes of mitosis and meiosis using high quality 3-D animation. It explains how traits are passed between generations, the differences between pure and hybrid traits, recessive

and dominant genes, and the use of the Punnett square to predict the probability of offspring inheriting a given trait.

The program also looks at common genetic disorders and the importance of genetics in medicine and biotechnology. CD-ROM only, order 1-9078

The World's Biomes: Desert to Rainforest

Introduce students to how various physical forces determine the climate of a biome and, in turn, the density of life within a given biome.

Take students on a journey through rainforests, deserts, grasslands, coniferous forests, alpine tundra, deciduous forests, and marine and freshwater biomes.

Throughout the journey, the adaptations that different organisms make to their environment are highlighted. CD-ROM only, order 1-9079

Classification: Bringing Order to Diversity

Explains how biologists try to organize 4.5 million species of life and how they document the process of evolution.

Scientists have developed a system of classification that groups all living things into five kingdoms - these kingdoms group organisms based on major differences in structure.

The kingdoms Monera, Protists, Fungi, Plantae, and Animalia are each unique in structure, function and organization at the cellular level. These unique differences are shown and explained.

The program investigates the unique characteristics of living organisms and describes some of the major divisions within these five kingdoms.

Although the science of classification is still being discussed and modified, the system works well to help provide order to a world with an incredible diversity of life. CD-ROM only, order 1-9080

Ages 15 to 18, Ages 12 to 14 minutes, order 1-89970-IN

The Brain And Spinal Cord

Grade 8 - Cells, Tissues, Organs, and Systems: Basic concept: describe the organization of cells into tissues, organs and systems.

All animals act in response to stimuli and that action is controlled by the brain, spinal cord, and nerves.

Using diagrams, live action, and microphotography, this program examines the functioning of animals' nervous systems. Animation and cross section models illustrate parts of the nerve cells and the brain, while...in a series of laboratory experiments...a monkey's memory is tested to demonstrate how the cerebrum works.

Available in CD-ROM, Laser Videodisc, video.

Ages 12 to 14, Ages 15 to 18 15 minutes, order 1-8280-IN

Cd-rom System Requirements

All programs are multi-platform capable.

For Macintosh, you will need:

1. MAC LC II or later model with 68030/25 Mhz or faster CPU
2. System 7.0.1 or greater
3. 14" or greater Mac compatible monitor with 256 (8-bit) colours
4. At least 4MB free RAM
5. Hard drive with at least 5MB free space
6. Mac compatible double speed or faster CD-ROM Drive
7. Apple QuickTime 2.0. (on CD-ROM).

For Windows, you will need:

1. 80486/33 MHz or faster CPU
2. Windows 3.1 or greater
3. 14" or greater VGA Monitor
4. Video card providing 256 (8-bit) colours
5. Sound card
6. At least 4MB free RAM
7. Hard drive with at least 3MB free space
8. PC compatible double speed or faster CD-ROM drive
9. Apple QuickTime 2.0 for Windows (supplied on CD-ROM)

minutes, order 1-00000-IN



Learning Resources

Cd-rom Site License Terms And Conditions

Canadian Learning Company grants you the right to copy the CD-ROM programs to a single computer or network storage device, and allow the software to be accessed via multiple computers within a single building. The CD-ROM may be used on a CD-ROM server as long as the program is not used simultaneously by two or more users.

For simultaneous use or access in multiple buildings or sites, a multiple site license is required. The following are the two licenses that may be purchased:

Multiple Building Site License = .75 x Program Cost x Number of Buildings
 Simultaneous Use License = 2 - 5 users = 2.5 x Program Cost
 6 - 15 users = 8 x Program Cost
 16 - 50 users = 20 x Program Cost

Each of the above licenses include one copy only of the CD-ROM. For lab packs, that is, multiple copy purchases, please contact Customer Service.

NETWORK

CONSIDERATIONS: Multiple simultaneous access may result in long delays while video is streaming. Copying the contents of the CD-ROM to a fast hard drive and applying special mapping may be required. Contact Customer Service for further instruction.
 minutes, order 1-00003-IN

The Chemistry Essentials Cd-rom Series

This series offers a complete chemistry curriculum. Each CD-ROM program contains video chapters (25 minutes); random access, interactive browsing; an interactive quiz; bulletin board; test with record keeping; interactive glossary and a teacher management system (password required).

The teacher management system allows teachers to write and edit quiz and test questions; track student scores; create/edit bulletin board information; print tests, class rosters and scores by name or code.

Matter: Form and Substance in the Universe

The basis characteristics of matter are introduced, including the concepts of mass, density, weight and inertia; the differences between elements, compounds, substances and solutions; the unique physical properties and chemical characteristics of different types of matter.
 Order 1-9087

Compounds: Electromagnetic Attraction in Molecules

Quality animation and graphics are used to explain how compounds are formed by either ionic or covalent bonding; the difference between various groups of compounds; chemical formulas, chemical equations and the Conservation of Matter.
 Order 1-9088

Atomic Structure: Mapping an Invisible World

The invisible world of the atom is brought to life in this program that examines how models of the atom have changed over time. It also shows how radioactive isotopes are used to detect and fight disease, monitor the flow of pesticides through the environment, and to date fossil remains.
 Order 1-9089

Periodic Table: Reactions and Relationships

This informational program explains periodic law and the significance of the rows and columns of the periodic table. It also outlines the physical and chemical qualities of the members of each group of elements from the alkaline metals to the noble gases.
 Order 1-9090

Reactions: The Chemistry of Change

Various types of reactions, including exothermic and endothermic, spontaneous and non-spontaneous, are discussed. How variables such as temperature, concentration, and the presence of a catalyst affect the rate of chemical reactions is also examined.
 Order 1-9091

Mixtures: Together But Separate

This program explains the difference between mixtures and compounds, and how stability is affected by the polarity of the solvent and solute.

Students are also introduced to suspensions and colloids, and how mixtures can be separated by filtering, distillation, and setting.

Order 1-9092

Ages 12 to 14, Ages 15 to 18 minutes, order 1-90870-IN

The Children's Encyclopedia Of Mathematics: Fractions Series

Fully animated educational cartoons produced in cooperation with the National Council of Teachers of Mathematics (U.S.). With the click of a mouse, you child can explore fractions independently. These six interactive, animated programs engage children in stories and activities guaranteed to keep them learning for hours.

Caveman - Between the Whole Numbers

Go back in time to the Stone Age and chisel whole numbers with cavemen.

Order 1-82131

Machine - Adding with Fractions

A little boy learns how to use a "number re-namer" machine to help him add fractions.

Order 1-82171

Gems - Subtracting with Fractions

Meetoo, assistant keeper of the Moongolian gems, learns to record the number of jewels left after the chief takes various amounts.

Order 1-82201



Learning Resources

Knights - Between Rational Numbers

Visit the land of knights and joust it out in the challenging world between rational numbers.
Order 1-82161

Watermelon - Equivalent Fractions

Play the numbers game on the farm and come up with endless ways to slice a watermelon.
Order 1-82141

Genie - Comparing Rational Numbers

Dive into the sea and help a clam and his genie uncork rational numbers.

Ages 9-14
minutes, order 1-82132-IN

Circulation Of The Blood

Grade 5 - Human Organ Systems: Basic concept: describe the basic structure and function of the major organs in the circulatory system.

The human body requires a constant supply of oxygen and nutrients to its billions of cells, and the constant removal of carbon dioxide and water. These tasks are performed by the blood.

In this examination of the circulatory system, colourful animation documents the process that keeps human beings alive. The program explains the function of each part of the heart, shows how matter is exchanged in the cells, and illustrates the role of the nervous system in regulating the heartbeat.

Available in CD-ROM, VHS and Laser Videodisc

Ages 12 to 14
24 minutes, order 1-8281-IN

The Earth Science Essentials Cd-rom Series

Series offers a complete Earth Science curriculum. Each CD-ROM program contains video chapters (25 minutes), random access, interactive browsing, an interactive quiz, bulletin board, test with record keeping, an interactive glossary and a teacher management system (password protected).

The teacher management system allows teachers to write and edit quizzes and tests; track student scores, create and edit bulletin board information, print tests, class rosters and scores by name or code.

Oceans: Charting the Vastness

Oceans cover 70% of Earth's surface, are responsible for much of Earth's weather patterns, and contain vast quantities of living and mineral resources. This program explains the geology of the ocean floor, the dynamics of ocean currents and tides, and the oceans' incredible diversity of marine life.

Order 1-9081

The Universe: The Vast Frontier

Colourful, 3-D animation of the "big bang" and the birth and death of stars, exciting footage of the VLA radiotelescope in New Mexico and optical

telescopes in Arizona, highlight this powerful introduction to the structure and history of the universe.

Order 1-9082

Geology of the Earth: Of Forces, Rocks and Time

Dramatic volcanic and glacial footage and spectacular coastal and canyonland shots visually outline the forces that contribute to shaping the earth's surface, the movement of crustal plates, volcanic activity, physical and chemical weathering and erosion.

Order 1-9083

The Solar System: Our Neighbours in Space

After explaining the nebular theory of the origin of the solar system, this program takes a spectacular journey across the universe. Actual satellite and telescope photographs detail the geology, atmospheric composition, and the moons of each of the nine planets.

Order 1-9084

Weather: The Chaos Which Surrounds Us

Dramatic live action storm footage provides a vivid introduction to the dynamics of the atmosphere. The program shows how the flow of energy in the atmosphere leads to weather patterns and details how violent weather phenomenon develops.

Order 1-9085

The History of the Earth: Over the Eons

This integrated outline of the geologic and biologic history of Earth provides students with a basic understanding of the major geologic and biologic events from the Precambrian Era to the present.

Order 1-9086

Ages 12 to 14, Ages 15 to 18
minutes, order 1-90810-IN

Ecosystem Of A Pond

Animals And How They Live Series

Grade 6: Diversity of Living Things: Basic concept: describe microscopic living things.

Grade 4: Habitats and Communities: Basic concept: recognize that plants and animals live in specific habitats.

Explores a tranquil pond to show an ecosystem teeming with life. Remarkable photography allows up close examination of creatures living on and in the water. The chloroplast in spirogyra and cells in pond weed are examined under a microscope. Encourages exploration and appreciation for the delicate balance that exists in any ecosystem.

Available in CD-ROM and VHS

Ages 9 to 11, Ages 12 to 14
18 minutes, order 1-8397-IN



Learning Resources

Ecosystems: Nature In Balance

Grade 7 - Interactions
Within Ecosystems: Basic concept: identify and explain the roles of producers, consumers and decomposers in food chains. Grade 6 - Diversity of Living Things.

Explores the ecosystem as a food chain with producers (plants), consumers (animals), and decomposers (bacteria and waste), showing how relationships in an ecosystem work and depend on each other.

Available in CD-ROM, VHS and Laser Videodisc

Ages 9-14
 13 minutes, order 1-8559-IN

Electrical Current And Magnetism

Grade 6 - Electricity
Through simple experiments, the basic principles of electromagnetism are explored. Electromagnets are contrasted with permanent magnets and their differences and similarities are clearly shown. Also teaches basic principles behind common electrical devices.

Available in CD-ROM and VHS

Ages 9-14
 18 minutes, order 1-8381-IN

Evolution (Natural Selection Of Plants And Animals)

Examine the fascinating process of evolution compared to the artificial selection process. Illustrates how living things get their characteristics, the role of mutation in evolution, and how some mutations prove to be an asset in subsequent generations.

Ages 9-14
 17 minutes, order 1-8558-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

A First Look At Birds

Grade 1: Basic Concept: 1) Describe the different ways in which animals move; 2) Identify and describe common characteristics

Describes the anatomical features and behaviours which make these creatures truly unique, pointing out which enable birds to fly, swim, run fast or hover in the air. Explains migration, breeding and feeding habits, from hummingbird to ostrich.

Available in VHS, CD-ROM and Laser Videodisc

Ages 6-11
 15 minutes, order 1-8503-IN

Frogs And How They Live (Revised)

Animals And How They Live Series

Extra close-up photography and graphics reveal the life cycle of the frog and the unusual ways frogs see, hear, taste, and smell; also highlights specialized adaptations like tongues, webbed feet, hibernation, and "breathing" skin.

Available in VHS, Laser Videodisc and CD-ROM

Ages 12 to 14, Ages 9 to 11
 14 minutes, order 1-9984-IN

Grand Canyon Chronicles

Dramatic animation depicts life in the Age of Dinosaurs and the Age of Mammals with an original musical score.

It tells of the events and forces that shaped the Earth, and the appearance of the earliest plants and land animals.

Available in CD-ROM and VHS

Ages 12 to 14, Ages 15 to 18, Adult
 49 minutes, order 1-9700-IN



Learning Resources

Heat: Molecules In Motion

Grade 7 - Heat: Basic concept: how heat is transmitted by conduction, convection and radiation.

This program examines the ways we use heat by looking in on a typical family. It follows the family through one day's activities and illustrates how heat affects their lives.

Animation is used effectively to illustrate the main points... The narrator speaks both to the audience and to the characters in the film, which works well. This film correctly and effectively presents science and would be an excellent introduction to the topic of heat. American Association for the Advancement of Science.

Available in VHS, CD-ROM and Laser Videodisc

Ages 9-14
16 minutes, order 1-9811-IN

History 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 significant people, places, and events throughout history; Colonial America, founding fathers (U.S.), Civil War, the Roaring '20s, Depression, cold War, Korean War,

Arms Race, Kruschev, Nixon, Kennedy and American politics. Licensed for non-commercial use only.

Includes 205 QuickTime Movies and 322 Still Images.

Ages 12 to 14, Ages 15 to 18 minutes, order 1-11010-IN

How The Body Works: Skin, Bones And Muscles

Grade 5 - Human Organ Systems: Basic concepts: Describe ways in which the skeletal, muscular and nervous systems work together to produce movement; identify the skin as an organ and explain its purpose.

An in-depth look at how the body's integumentary and musculoskeletal systems work together to protect and support the body. Illustrated by clear action photography, X-ray footage, and animated graphics.

Video accompanied by a comprehensive discussion guide.

Available in VHS and CD-ROM

Ages 9 to 11, Ages 12 to 14
19 minutes, order 1-8879-IN

The Human Brain

Grade 8 - Cells, Tissues, Organs and Systems; Basic concept; describe the organization of cells into tissues, organs and systems.

Over the centuries, humans have accomplished remarkable feats in science, technology, art and culture. What has helped us succeed in these areas over all other animals on the earth? The answer is, the human brain, which is considered to be the most powerful computing machine in the world. This fascinating program explains why.

Intricate, microscopic photography, graphics and a cross sectional view of an actual human brain show the unique structural components found within the brain, while the narration explains their corresponding functions.

The brain's profound evolutionary development is compared to that of other vertebrates, and its phases of development within a gestating fetus are explored. The major sections, lobes and cells of the brain are defined, and the program explains the muscle stimulus to nerve impulse process. An inspiring introduction to this complex and wondrous organ.

Available in CD-ROM and VHS formats

Ages 12-18
14 minutes, order 1-8495-IN

Insects: Reproduction And Metamorphosis

Growth and Changes in Animals: Basic concepts: Describe the changes in the appearance and activity of an animal as it goes through a complete life cycle.

Documents the life cycles of various insects, from reproduction to adult, and shows how the insects adapt at each stage.

In vivid detail, the reproduction and metamorphosis of the large diving beetle, swallowtail butterfly, fruitfly, locust, and dragonfly are shown. The segment on the swallowtail butterfly is particularly remarkable. Also explored are the changing food requirements and common habitats of each of the insects. The quickly evolving physical characteristics of each insect at each stage of development are expertly depicted and thoroughly discussed.

Also covers the development of insects' pigmentation; the formation of a caterpillar's cocoon; and each stage of metamorphosis. Defines and discusses the purpose of the ovipositor in the fruitfly and locust, as well as "incomplete metamorphosis" and the completion of metamorphosis as the beginning of a new reproductive cycle. From FWU Productions.

Ages 6-11
20 minutes, order 1-8393-IN



Learning Resources

Investigating The Nervous System

This tastefully done program enhances biology study through sophisticated research that is not available to the average biology student. A thought-and-question provoking program. Media Profiles, Health Sciences Examines several methods that scientists use to investigate the nervous system of vertebrates, including behavioural experiments with animals, dissection, section cutting, and the use of electrical equipment to monitor changes in nervous tissue and muscle.

Available in CD-ROM or VHS
Ages 9 to 11, Ages 12 to 14
19 minutes, order 1-8020-IN

It's Chemical: Density In Solids

It's Chemical Series

Grade 5: Properties of and Changes in Matter

Joan and her aunt use kitchen experiments to gain an understanding of the basic principles affecting density in solids. Teachers guide provides additional experiments.

Available in CD-ROM, VHS and Laser Videodisc
Ages 9 to 11
28 minutes, order 1-8150-IN

It's Chemical: Phase Changes

It's Chemical Series

Grade 5: Properties of and Changes in Matter

Introduces the property of state of matter, building on concepts discussed in previous parts. Explore what permits skaters to glide on an ice rink, how cold water can crush a can, how candles work, and why cream separates when milk is frozen.

Available in CD-ROM, VHS and Laser Videodisc
Ages 9 to 11
25 minutes, order 1-8151-IN

Journey To The Moon

The Adventures In Space Series

Using NASA footage, the program covers the beginnings of America's space program, from John F. Kennedy's decision to put a man on the moon to it becoming a reality. The Appollo missions to the moon remain among America's greatest triumphs in space exploration. Excellent footage of rocket launchings, views from space, and astronauts on the moon.

This program does a good job of summarizing and explaining one of the greatest adventures of the 20th Century...beginning the exploration of outer space.

Available in VHS and CD-ROM
Ages 15 to 18, Adult
27 minutes, order 1-8481-IN

Kidney Functions

Grade 5 - Human Organ Systems: Basic concept: describe the basic structure and function of the major organs in the excretory system.

The body is able to remove useless or potentially harmful waste materials by filtering blood through the kidneys.

This program explains the process, showing how the network of blood vessels in a frog's kidney works to extract waste material. Microphotography traces the progress of harmless blue pigment as it is filtered through the kidney's blood vessels, then carried away by the ureter to the bladder.

Available in CD-ROM, VHS and Laser Videodisc.
Adult, Ages 12-18, Ages 15 to 18
5 minutes, order 1-8283-IN

The Know It All Series (Information Literacy Series)

Whether your students have a question born of their own curiosity, an assignment to complete, or a problem to solve, the Know It All programs will help them reach a successful conclusion. This four-step learning process will introduce your students to the process of gathering, presenting and evaluating information in different subject areas—art, science, social studies, humanities, and language arts.

Each video follows the four-step information process, but focuses attention on one of the four steps. The program descriptions below identify which of the four steps each video emphasizes, as well as the subject areas it touches on, allowing you to choose the ones that work best with the subjects you are teaching and your students' information-processing needs.

Asking the Right Questions: Step 1, What Do I Want to Know?

Strategy: Reframing and Clarifying Curriculum
Focus: Art—What is art?
Connections: Social Studies - art and society
Language Arts - influence of art on literature
Mathematics - ratios used in art

Trouble with an art project forces Taylor to ask the fundamental question: What is art? Her search for an answer leads her to a number of people and sources, including a local art gallery. Taylor is so inspired by what she discovers that, in addition to her report, she creates an art piece that reflects her special interests. Your students will discover along with Taylor how to narrow a topic, refine and reframe questions, and clarify what information they need.

1998 15 minutes, order 5-4796



Learning Resources

Knowing What to Do: Step 1, What Do I Want to Know?

Strategy: Developing a rubric
Curriculum Focus: Science—tornados
Connections: Science—weather and disasters
 Social Studies—survival and emergency management
 Language Arts—writing and reading about human behaviour

Liking a topic and having some “cool” visuals isn't always enough, as Cara and Lindsey realize when they compare their tornado project to those of their classmates. They see other students using a rubric to guide their information search and decide to do the same, finally coming up with an outstanding project. (A rubric is a tool, such as a chart, to help students track their information search.) Your students see how using a rubric can turn a ho-hum project into a knockout.

1998 15 minutes, order 5-4797

Choosing the Right Information: Step 2, Where Can I Find It

Strategy: Filtering for validity and accuracy
Curriculum Focus: Science—save the turtles
Connections: Science—animals and the environment
 Language Arts—reading and writing animal fact and fiction

After rescuing a turtle, Allie and Tyler discover that its continued survival depends on very specific, reliable information. When their efforts to find answers to practical questions are frustrated, they turn to the school's media specialist who leads them through a variety of resources—print, electronic, and human—to find answers. Your students learn how to evaluate information sources for validity, accuracy and relevance to their problem.

1998 15 minutes, order 5-4798

Thinking Up Ideas: Step 2, Where Can I Find It?

Strategy: Brainstorming
Curriculum Focus: Social Studies—Underground Railroad
Connections: Language Arts—reading and writing diaries

After a visit to an African-American history museum, Anna and Ben grow curious about an old house in their community that may have played a part in the underground railroad. Determined to find out about the house's heritage before it is torn down, they brainstorm places to look for information. Your students are introduced to brainstorming techniques and to a variety of information sources from both the school library and the community.

1998 15 minutes, order 5-4799

Saying It Another Way: Step 3, How Can I Use It?

Strategy: Paraphrasing
Curriculum Focus: Social Studies—bike trails and government issues
Connections: Science—human impact on nature
 Language Arts—expository and research writing and speech

When Bunker and his buddy, Jim, find out that their favourite bike trail has been closed to make way for a shopping mall, Bunker decides he must find a way to persuade the city to reconsider the move. In the process he learns that saying what is important—in his own words—is the best way to be heard. Your students gain practice in rephrasing information and an understanding of the importance of using their own words.

1998 15 minutes, order 5-4800

Getting It All Together: Step 3, How Can I Use It?

Strategy: Organizing
Curriculum Focus: Humanities—living author report
Connections: Social Studies—influence of historical events on human endeavours
 Language Arts—life and work of authors
 Science—scientific biography

Jim thinks he has his author report under control after setting up an interview with the author. But the interview is too short and Jim has trouble keeping track of his notes. His friends and his teachers help him develop the organization he needs in his report—and in his life. Classroom activities help your students gain an understanding of organizational schemes they can put to use in their own projects.

1998 15 minutes, order 5-4801

Sharing Your Results: Step 3, How Can I Use It?

Strategy: Product and presentation
Curriculum Focus: Language Arts—fairy and folk tales
Connections: Fine Arts—ethnic art, music and dance
 Social Studies—ethnic traditions and festivals

Deciding how to present a project on fairy tales has Cammy, Alex and Nicole stumped at first. When they start to consider ways other than a written report, they become excited about the project. Using Nicole's video skills and their own research and acting skills, they come up with a clever way to present their project. Your students learn about the various ways to present information, and how the format can affect their search and its result.

1998 15 minutes, order 5-4802



Learning Resources

Thinking About What You Did: Step 4, How Did I Do?

Strategy: Assessing the product Curriculum
Focus: Science—hovercraft
Connections: Social Studies—impact of air and space technology on society

Having some of the right information doesn't always lead to the right answer, as Glenn and Taylor discover when their initial attempt to build a hovercraft falls flat. Helped by an uncle and a rubric, they retrace their steps, adjusting until they finally launch their "Flying Pizza" successfully. Your students learn to ask questions about why a project might fail, what might be wrong with the information, and what they need to do to help a project succeed.

1998 15 minutes, order 5-4803

Thinking About How You Did: Step 4: How Did I Do?

Strategy: Assessing the process Curriculum
Focus: Language Arts—young authors
Connections: Social Studies—frontier life, and history of a state and its education
Science—inventors and inventions

Zach develops an interesting story for the Young Author's Contest, but ignoring the four-step process leaves him off the mark in accuracy. To give his story the authenticity it needs, Zach reviews what he wants to know and learns where to find accurate information. Your

students will learn how to evaluate their final product by reviewing the four-step process and revising as necessary.

1998 15 minutes, order 5-4804

Primary Learners: Introduce Learning Skills in Early Grades

The Know It All information literacy process can also be introduced to primary learners. Very young students may not have the reading skills to do traditional research, but they have a natural curiosity that can be harnessed. This program demonstrates the strategies that primary teachers and media specialists can use to make research a successful experience for students at this level. In separate episodes, groups of kindergarteners and first graders gather information about plants and animals from multiple resources and begin to learn a simple information-searching process.

1998 15 minutes, order 5-4805

Intermediate Learners: Watch The Learning Process Unfold

This program follows teachers and media specialists as they engage students in two information-processing strategies:

thinking up ideas and writing historical fiction. You'll observe how students approach each step in the process toward a final project, how they assess their own work and how teachers assess the whole process.

1998 15 minutes, order 5-4806

Collaborative Teaching: Create A Learning Community

This program takes a close look at the elements of successful teamwork in four different school environments. You'll see partnerships involving teachers, media specialists, parents and other community members. Follow these "dream teams" as they plan units, act as facilitators and coaches in the classroom and media center, and evaluate the outcomes of the unit and/or activity.

1998 15 minutes, order 5-4807

Ages 6-11, Professional minutes, order 5-47951-IN

Learning About Ecology

Grade 4: *Habitats and Communities; Overall Expectation: demonstrate an understanding of; investigate the dependency of plants and animals on their habitat and the interrelationships of the plants and animals living in a specific habitat.*

Illustrates, with beautiful footage, the relationship between animals and their environment. Stresses the interrelationship of all elements in an ecosystem and the balances necessary to maintain and continue life.

Students learn that they too are part of an ecosystem, with specific responsibilities for its improvement and protection.

Also available in CD-ROM and Laser Videodisc format

Ages 9 to 11
13 minutes, order 1-8786-IN

Learning About Electricity

Grade 6 - *Electricity*
Youngsters will associate electricity with some of their favorite things in this examination of the ways we use electrical power at work and play. Live-action demonstrations and examples from everything life illustrate the nature of electricity.

Concepts and vocabulary explained in the program include static and current electricity; proton, electron, and neutron; attract and repel; positive and negative; generator, conductor, insulator, and circuit.

Also available in Laser Videodisc, CD-ROM and VHS format

Ages 6-11
16 minutes, order 1-9824-IN



Learning Resources

Learning About Science: Flowers

Grade 3 - Growth and Changes in Plants; Basic concepts; Identify the major parts of a plant; classify plants according to visible characteristics; describe changes that plants undergo in a complete life cycle.

We all enjoy smelling and looking at flowers, but not everybody recognizes that trees, grasses and even weeds have flowers.

Students will learn how a variety of plants, including broccoli, snapdragons, blackberries, apple trees, corn and many others, grow flowers to reproduce.

Vivid close-up photography shows the male and female parts on a variety of flowers with a good explanation of how pollination and fertilization occur.

Available in CD-ROM and VHS format

Ages 9 to 11
15 minutes, order 1-8598-IN

Learning About Science Series

Basic principles of physical science, hands-on, insightful experiments and demonstrations.

Learning About Electricity

Introduces basic principles in ways both instructive and fun to watch. Examples give form to the concepts of static electricity, polarity,

conduction and circuits. Shows daily life examples of how concepts applied. This title is available in CD-ROM and Laser Videodisc
16 minutes, order 1-9824

Learning About Light

Properties of light are shown using magnifying glass and prism. Color composition is demonstrated in a homemade rainbow. Light is related to heat, stored light and heat in wood and coal is mentioned.
9 minutes, order 1-4044

Learning About Air

Balloons, sailboats and windmills use air for a purpose. Kids learn the properties of air and enjoy games that are really demonstrations of what air and wind do. Four Awards & Cine Golden Eagle.
11 minutes, order 1-4039

Learning About Liquids, Solids And Gases

Ice, water, steam, it's all the same thing as kids learn when they explore the properties of matter. While changing it from one state to another they learn shape, mass, weight and molecular action.
11 minutes, order 1-4045

Learning About Solar Energy

Kids find ways to heat water for an outdoor shower and cook a hamburger in miniature solar furnace. They learn how solar energy is used in many other ways. Award Winner Science, National Education.
12 minutes, order 1-4020

Learning About Sound

A diagram of the ear illustrates how sound waves are transmitted through the air to the inner ear, and experiments demonstrate how sound travels through solids, liquids and air.
13 minutes, order 1-4059

Learning About Water

Kids learn that water is a major component in our bodies, in our foods and in our world. Explore water and its various form in ice and steam and its natural source, rain. Water cycle is explained.
12 minutes, order 1-4042

All titles are available in CD-ROM and VHS formats

Ages 6 to 8, Ages 9 to 11
71 minutes, order 1-40390-IN

Let's All Recycle

Woody Woodpecker, the official recycling mascot, explains the importance of the famous "three R's": *reducing*; *reusing*; and *recycling*. Youngsters learn that the Earth's resources are limited, and that their participation in conserving energy is valuable.

Available in CD-ROM and VHS formats

Ages 6-11
8 minutes, order 1-8390-IN

Living Cells

Grade 5 - Human Organ Systems; Basic concept: identify the cell as the basic unit of life.

Spectacular microphotography reveals living cells as students observe the internal movements of cell components, the movements of the cell surface and in some cases, active movement of the entire cell.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 9 to 11, Ages 15 to 18, Ages 12-18, Adult
14 minutes, order 1-8023-IN

Living Soil

Grade 3 - Soils in the Environment: Basic concept; the various components within soil.

Grade 4 - Rocks, Minerals and Erosion.

Special photographic techniques reveal activities of nature that human senses cannot normally perceive...the powerful and subtle natural processes that create the fragile few inches of soil that sustain life on this planet.

The relentless cycle of life, decay, then new life is strikingly portrayed by remarkable time-lapse footage.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 9 to 11
9 minutes, order 1-8024-IN



Learning Resources

Living Trees

Grade 3 - Growth and Changes in Plants: Basic Concepts; Identify major parts of; Describe the effects of the seasons on trees.

Live action footage of trees in all seasons and captioned graphics show the various structures of trees and their processes of growth, photosynthesis, and transpiration.

The functions performed by trees that are crucial to Earth's habitable environment are also described.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 9 to 11
16 minutes, order 1-9830-IN

The Lungs

Grade 5 - Human Organ Systems; Basic concept: structure and function of the major organs in the respiratory system. Grade 8 - Cells, Tissues, Organs and System.

Using typical land mammals as examples...the horse, sheep, and dog...this film focuses on lung and air passages. It demonstrates that the respiratory system of mammals enables exchange of gases between blood and external environment.

The lung's structure is shown through dissection of a sheep's lung. Re-inflation of living lung tissue and the appearance of the lungs during breathing are shown at the end of a chest operation on a dog at a veterinary

clinic. Radio-cinematography shows how diaphragm and rib movements alter the volume of the chest cavity.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 15 to 18, Adult, Ages 12-18
10 minutes, order 1-8018-IN

The Mammalian Heart

Grade 5 - Human Organ Systems; Basic concept; describe the basic structure and function of major organs in the circulatory system. Grade 8 - Cells, Tissues, Organs and Systems.

The structure and functional of the mammalian heart is explained by using the heart of the sheep and the dog as examples. The sheep's heart is used to show external features and internal structure. Then the appearance of a living heart is shown during a routine chest surgery on a dog at a veterinary clinic.

Available in CD-ROM, Laser Videodisc and video.

Ages 15 to 18, Post Secondary - Introductory
15 minutes, order 1-8019-IN

Mass And Density: Investigating Matter

Grade 5: Properties and Changes in Matter

Detective Will Slater conducts experiments that demonstrate the Law of Conservation of Mass, how changes in volume affect density, and how buoyancy works.

Available in CD-ROM, VHS and Laser Videodisc

Ages 12 to 14, Ages 9 to 11
20 minutes, order 1-9812-IN

Mcgruff On Dangerous Strangers

Mcgruff The Crime Dog Series

McGruff and his nephew MScruff are concerned about the disappearance of a neighbourhood child. This sparks a discussion about the definition of "stranger" and prompts McGruff to review practical ways children can stay safe on the way home from school. The story ends happily when the missing child is found unharmed.

The fully-interactive CD-ROM version features full-motion video and a variety of fun and engaging safety-related games.

Ages 6 to 8
15 minutes, order 1-8751-IN

Meiosis And Mitosis: Fertilization And Sexual Reproduction

Striking microphotography and colour animation illustrate the various cellular processes involved in reproductive development in vertebrates and invertebrates. Covers internal and external fertilization, meiosis and mitosis.

Program comes with a comprehensive discussion guide.

Available in CD-ROM and VHS formats

Ages 12 to 14, Ages 15 to 18
23 minutes, order 1-8878-IN

Microbes: Bacteria And Fungi

Grade 7: Interactions Within Ecosystems: Basic concept: Identify micro-organisms as beneficial and/or harmful.

Bacteria and fungi carry on all the processes necessary for life...they grow, get energy from food, move, and reproduce. In this program, the physical characteristics, the risks and benefits to humans, and the ways to impede and prevent the growth of microbes are examined. Biology and scientific method are taught in a context familiar to students...through food.

Practical everyday examples are correlated with scientific investigations at school. Common foods, such as pizza dough, mushrooms, and yogurt, illustrate the results of beneficial microbes. At school, teenagers and their science teacher grow fungi on an orange.

As Jennie and Dan prepare a meal for a friend, they learn various methods food preservation: canning, refrigeration, freezing, dehydration, pasteurization, and irradiation.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 9 to 11, Ages 12 to 14
17 minutes, order 1-9775-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



Learning Resources

Newton's Laws Of Motion: Demonstration Of Mass Force Momentum

Grade 3 - Forces and Movement

In the classroom, Mr Dexter gives a lesson on mass, force, and momentum. With the help of simple but memorable demonstrations, he teaches the principles and vocabulary associated with Newton's laws of motion.

The actual physics that is being taught is clearly stated, and he demonstrations are well chose. Students will find the content helpful in understanding the laws of motion. Science Books & Films, American Assoc for the Advancement of Science.

Available in CD-ROM, VHS and Laser Videodisc.

Ages 12 to 14, Ages 9 to 11
17 minutes, order 1-9777-IN

Our Living World: Parasites

Our Living World Series

Grade 7 - Interactions Within Ecosystems: Basic concepts: Identify micro-organisms as beneficial and/or harmful; Identify populations of organisms within an ecosystem and the factors that contribute to their survival.

Clear presentation of the numerous species of parasites and the kingdoms (monera, protist, fungi, animal) to which they belong.

Illustrates the life cycles of different parasites and explains the parasite/host relationship. Also describes the impact of parasites on humans, the infections and diseases they cause, and the preventive and curative measures we can take.

Available in CD-ROM and video.

Ages 15 to 18
22 minutes, order 1-8877-IN

Parasite Sleuth

The Wonderwise Series: Women In Science

Judy Sakanari, Ph.D., is a parasitologist who studies the genetics of tiny worms called nematodes that live inside fish and other animals.

"Most people think parasites are really gross and I find them really fascinating."

The CD-ROM includes the complete video content in QuickTime. Installation requires 20 mb of free space.

Windows/MacIntosh dual.

Your students will investigate parasite description and classification; dissecting with a purpose; growth and development; human biology, health and hygiene; science as detection.

Ages 9 to 11, Ages 12 to 14
15 minutes, order 5-4593-IN

Photosynthesis

Grade 3: Growth and Changes in Plants

Various aspects of photosynthesis - the process that enables green plants to use the sun's energy to live and grow - are examined.

The program shows students why whenever they see plants, animals, people working, planes flying, or cars travelling on the highway, they are seeing the results of photosynthesis.

Available in CD-ROM and VHS formats

Ages 9 to 11
12 minutes, order 1-8595-IN

The Physics Essentials Cd-rom Series

Each interactive CD-ROM program contains video chapters (25 minutes); random access, interactive browsing; interactive quizzes; bulletin board; test and record keeping; an interactive glossary and a password protected Teacher Manager System.

Electricity: The Invisible River of Energy

A mass of information gives students a fundamental understanding of electrical energy: static and current electricity: parallel, series, and complex circuits; the relationship between magnetism and electricity; and how electricity is generated.

Order 1-9093

Waves: Energy in Motion

Quality animation helps illustrate how waves transfer energy, but not matter, from one point to another. The concepts of reflection, refraction, interference, diffraction, the Doppler Effect, wavelength, amplitude, and frequency are also thoroughly explained.

Heat and the Changing States of Matter

Students learn how thermal energy causes matter to change states, expand and contract, and how this energy is transferred by convection, conduction, and radiation. Scenes of steel mills, solar and geothermal power plants, and wind farms illustrate these concepts.

Motion: Newton's Three Laws

Exciting footage of Edragsters, fighter jets, and bungee jumpers illustrate Newton's Three Laws of Motion. These examples help explain the motion of falling bodies and projectiles, circular motion, and how the motion of an object is relative to the observer's frame of reference.

Order 1-9096



Learning Resources

Light, Lenses, and Lasers

This program explains that light is the visible part of the electromagnetic spectrum which consists of a variety of waves from radio waves to cosmic rays. It also explores the use of concave and convex lenses and the concepts of diffraction and polarization.

Order 1-9097

Force and Work: Energy in Action

Viewers are introduced to everyday mechanical forces and the mysteries of field forces like gravity and electromagnetism. The concepts of work, pressure, potential and kinetic energy, and power and efficiency are also explored.

Order 1-9098

Ages 15 to 18, Ages 12 to 14 minutes, order 1-90930-IN

Plants In Action

Grade 3 - Growth and Changes in Plants: Basic concepts: describe how the growth of plants is affected by changes in environmental conditions; describe the changes that plants undergo in a life cycle.

Plant movements are quite complex, but they usually go unnoticed. Using time-lapse photography, this film allows students to view the activity of plants growing and responding to changes in their environments. Leaves open by day and close at night. Flowers open to

sunshine. Climbing plants send out tendrils in search of support. Clover leaves twist and turn in search of sunlight.

By Educational Media International in association with the Australian Academy of Science Biology Project.

Available in CD-ROM and VHS formats

Ages 9 to 11, Ages 12 to 14 10 minutes, order 1-8022-IN

Rainforest Ecologist

The Wonderwise Series: Women In Science

Janalee Caldwell, Ph.D., works on the ecology of tropical amphibians. One project is concerned with the life cycle of poison frogs from Amazonian Brazil. Janalee is a member of the Cherokee Nation of Oklahoma.

"It seems like every time I figure something out there are more questions that come about. So it's really a never-ending process."

The CD-ROM includes the complete video content in QuickTime. Installation requires 20 mb of free space.

Windows/Macintosh dual. Your students will learn about ecology and community structure; camouflage and warning colouration; growth and development; human environmental impacts on natural systems; graphing data.

Ages 9 to 11, Ages 12 to 14 15 minutes, order 5-4592-IN

Reading With Peter Cottontail

Based on the classic series by well-known author Thornton Burgess, this series offers the comforts of a real book coupled with high-tech bells and whistles that encourage kids to read.

Each CD-ROM contains more than 20 minutes of full-motion cartoon animation. Students can read at either of two levels of difficulty; with or without voice-over narration.

In the Activities Section: Peter's Paintbook - Character Crazies - Tale Twisters - Clone Zone - Dot-to-Dot and Peter's Jigsaw Puzzles.

Each reading program includes an AIMS Teaching Module - a 30+ page comprehensive teacher's lesson plan that uses program content to facilitate the teaching of the six levels of cognitive complexity - knowledge, comprehension, application, analysis, synthesis and evaluation.

Bobby Returns

When Bobby Raccoon hurts his leg, he is cared for by Tom the farmhand, while his friends plot an unnecessary "rescue".

The Story of Mrs Quack

Mrs Quack, wounded by a hunter, recovers in a pleasant pond with the help of her animal friends and Tom, the farmhand.

The Chase

Peter learns a lesson about playing practical jokes when one of his tricks backfires, resulting in a scary chase.

Condor's Secret

Peter's irrepressible curiosity leads him to discover a wonderful secret about the Condor Family.

Ages 6 to 8, Early Years minutes, order 1-10011-IN

Recycle

The Protecting Our Environment Series

Many items thrown out in the trash can be recycled instead. But what does recycling mean? And what things can be recycled?

This program explains recycling and shows that the list of recyclable items is a long one indeed - everything from papers, can and bottles, to tires and used motor oil.

Even certain kinds of plastic can be recycled. Several items are shown as they're broken down, sent through the recycling process, and manufactured into new products.

Recycling saves space, energy, and money, and reduces the number of landfills that can harm our environment and our health.

Also available in VHS and Laser Videodisc.

Ages 9 to 11 16 minutes, order 1-8253-IN



Learning Resources

Reuse

The Protecting Our Environment Series

The utility value of many household items can be extended by modifying or creating new uses for them.

his program demonstrates how yard trimmings and kitchen scraps can be turned into compost heaps that add minerals to the soil. It shows that containers, jars and bottles can be refilled countless times and that auto parts can be reconditioned. Broken furniture and appliances don't have to be thrown away; they can be cleaned, repaired and resold by voluntary organizations, and used all over again.

Also available in VHS and Laser Videodisc.

Ages 9 to 11, Ages 12-18, Adult
13 minutes, order 1-8254-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-commercial use only.

Includes 165 Quick Time Movies and 407 Still Images

All Ages
minutes, order 1-1009-IN

Sea Otter Biologist

The Wonderwise Series: Women In Science

Brenda Ballachey, Ph.D., is the project leader for the Sea Otter Oil Spill Studies Project for the National Biological Service. She studies the impact of the Exxon Valdez oil spill on sea otter populations.

"I grew up around cattle and horses. When I took the job here in Alaska and started working with sea otters, it was a very new environment for me. All of a sudden I was in boats and we didn't have fences or gates in which we could close the animals."

The CD-ROM version includes complete video content in QuickTime. To install, users will need 20 mb of free space. Windows/Mac dual.

Your students will learn observation and authentic data gathering skills; problem solving and graphing data; ecology, ecosystems and community structure; human environment impacts; and animal communication and behaviour.

Ages 9 to 11, Ages 12 to 14
30 minutes, order 5-4590-IN

Seasons: A Year Of Change

Painstakingly shot in North America, this program takes viewers through a year of changes and adaptation, birth, growth, and death to discover insights into ecology, life and its cycles.

Also available in CD-ROM version. Open caption version available in VHS.

Ages 6 to 8, Ages 9 to 11
15 minutes, order 1-9654-IN

Simple And Compound Machines: How They Work

Grade 4: Pulleys and Gears;
Basic concept: functions of pulleys, gears

No matter how "high tech" our world becomes, much work continues to be accomplished by simple machines – the lever, wheel and axle, pulley, wedge, inclined plane, and screw. This program turns everyday activities into opportunities to see physics at work.

Two students show up at a local equipment rental shop seeking help with their science fair project. The woman who runs the shop gives them the help they need, along with a lesson in basic physics.

Available in CD-ROM and VHS formats

Ages 9 to 11, Ages 12 to 14
22 minutes, order 1-9776-IN

Trees: Evergreen And Deciduous

Grade 3 - Growth and Changes in Plants: Basic concepts: *Classify plants according to visible characteristics; describe the effects of the seasons on plants; describe the changes that plants undergo in a life cycle.*

Why do some trees lose their leaves in the fall, while others keep them through the year? What makes the leaves of some trees turn bright red, while others turn yellow?

Stunning time-lapse photography combines with micro photography to illustrate the similarities and differences between deciduous (cherry) and evergreen (Camellia) trees. The process of transpiration is defined and the effect of temperature, water, and seasonal change on both types of trees is explored.

Also available in CD-ROM format

Ages 9 to 11, Ages 12 to 14
17 minutes, order 1-8382-IN



Learning Resources

Weather: Air In Action

Cd-rom

Grade 5 - Weather; Basic concepts: Explain the difference between weather and climate and the factors that influence them; recognize large-scale and local weather systems; predict local weather patterns using data; explain the formation of clouds on weather; identify patterns in air movement; identify effects of air pressure.

Covered are such topics as the effect of temperature on weather, the different qualities and behavior of hot and cold air, the function of a barometer, the water cycle, the causes of winds, storms and lightening, the rotation of the earth and its relation to weather, and the formation and types of clouds.

Temperature, Pressure and Humidity: Solar energy, air, water and earth are explained, along with their effects on temperature and humidity.

Winds, Fronts and Storms: Described in detail are weather fronts, wind, clouds, tornados and hurricanes, and the various forms of precipitation.

Ages 9-14
minutes, order 1-7518-IN

The Wetlands

Grade 4 - Habitats and Communities: Basic concept: Recognize that plants and animals live in specific habitats because they are dependent on those habitats and have adapted to them; **Relating Science and Technology...:** show the effects on plants and animals of the loss of their natural habitat.

Beautifully photographed program provides a portrait of North America's imperiled wetlands, chronicling the life in these ecologically vital areas. Today, with fifty percent of North America's wetlands drained, people are becoming aware of the importance of these delicate parts of our planet's ecosystem and working to save them.

Also available in CD-ROM and Laser Videodisc.

Ages 12-18, Ages 9 to 11, Adult
13 minutes, order 1-8234-IN

World Of Protozoa

Grade 6 - Diversity of Living Things: Basic concept: describe ways in which micro-organisms meet their basic needs.

Two types of these single-cell organisms...amoebas and paramecia...are used to discuss the physical features, methods of movements, and reproductive processes common to many protozoa. They are shown moving and changing shape in a variety of habitat.

Also available in CD-ROM and Laser Videodisc.

Ages 12-18
18 minutes, order 1-8380-IN

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