

# SCIENCE

## About Science

(Gr. 6-9) (28/15 Min.) (Purchase - \$64.00) (Rights - Unlimited )

**Block Feed Programs: 101-117: 05-01-07; 2:00-5:53AM**

**Block Feed Programs: 118-128: 05-02-07; 2:00-4:13AM**

### Correlations to Competencies from Miss. Science Framework

- 5<sup>th</sup> grade # 10 Examine the transformations of forms of energy.
- 6<sup>th</sup> grade # 8 Investigate structure, properties, and changes of matter.
- # 9 Evaluate the effect of force on the motion of an object.
- # 10 Examine the transfer of energy in many different forms
- 7<sup>th</sup> grade # 5 Explore the composition and changes of the Earth system.
- # 7 Explain the causes of lunar phases, eclipses, and Earth's seasons.
- # 8 Investigate chemical and physical properties of matter.
- # 9 Investigate motions and forces.
- # 10 Investigate the sources of energy.
- 8<sup>th</sup> grade # 8 Analyze the properties of matter.
- # 9 Explore the application of simple and complex machines.
- # 10 Investigate the transfer of energy.
- Physical # 4 Investigate physical and chemical changes in matter.
- Science # 5 Investigate matter in motion.
- # 6 Describe sources, uses, and effects of energy.
- # 7 Discuss general properties and characteristics of waves.
- # 8 Recognize the interrelationships of electricity and magnetism.
- Earth # 2 Characterize the different types of mineral deposits.
- Science # 3 Describe the basic types of rocks and how they are formed.

This series includes the most basic concepts in physics, chemistry and mineralogy at an elementary level. Each single-concept lesson is a close-up of a key demonstration of an experiment. Experiments that require more elaborate or sophisticated equipment, such as electrolysis and ultraviolet radiation, can now be brought into the classroom.

- 101. Preparation of Oxygen
- Physical Properties of Oxygen
- Chemical Properties of Oxygen
- 102. Preparation of Carbon Dioxide
- Properties of Carbon Dioxide
- Dry Ice
- 103. Electroplating
- Distillation
- A Flame Test

104. Acids  
Bases and Neutral Compounds  
Conductivity  
105. Conservation of Matter  
Combustion and Weight Changes  
Electrolysis  
106. Gravity  
Friction and Motion  
Gravity and Friction  
107. Mixtures and Compounds  
Carbohydrates: Sugars and Starches  
Fats and Proteins  
108. Static Electricity  
A Wet Cell  
A Dry Cell  
109. Producing an Electric Current  
An Electric Circuit  
An Electric Bell  
110. Short Circuits and Fuses  
A Series Circuit  
A Parallel Circuit  
111. Electroscope  
Magnetic Behavior  
An Electric Motor  
112. Understanding Magnets  
Electromagnets  
A Mercury Barometer  
113. Making a Telegraph: An Electromagnet  
Expansion and Contraction  
The Effects of Air Pressure  
114. Sources of Light  
Transmission of Light  
Shadows and Solar Eclipses  
115. The Law of Reflection  
Mirrors and Reflected Light  
Refraction  
116. Convex and Concave Lenses  
What Is Color?  
X Rays  
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117. The Particle Theory of Light  
The Wave Theory of Light  
Visible Light and the Spectrum  
118. Wavelengths and the Spectrum  
Infrared Radiation  
Mass and Weight

- 119. Volume Density
  - 120. The Mineral Kingdom/The Three Classes of Rocks
  - 121. Crystalline Structure of Minerals
  - 122. The Streak Test and the Luminescence Test Rocks
  - 123. A Swinging Pendulum/Floating and Sinking
  - 124. Machines/Work
  - 125. Leonardo da Vinci, The Products of a Genius
  - 126. Leonardo da Vinci, The Renaissance Period
  - 127. Leonardo da Vinci, The Artist and Scientist
  - 128. Leonardo da Vinci, The Mechanic 114
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## **Animals Around Us**

(Gr. 2- 5) (7/14 Min.)(Purchase-\$32.00) (School Year)

**Block Feed Programs: 1-7: 10-18-06; 2:20-3:52AM**

**Block Feed Programs: 1-7: 2-14-07; 2:22-3:54AM**

- 1. Amphibians: What Are They?
  - 2. Animal Adaptations: What Are They?
  - 3. Birds: What Are They?
  - 4. Fish: What Are They?
  - 5. Invertebrates: What Are They?
  - 6. Mammals: What Are They?
  - 7. Reptiles: What Are They?
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## **Animal Intelligence**

(Gr. 4-9) (1/17 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 12-7-06; 5:00-5:19AM**

**Block Feed Programs: 4-07-07; 5:25-5:44AM**

### **Correlations to Competencies from Miss. Science Framework**

4<sup>th</sup> grade # 1 Investigate the ability of living things to adapt to their environment.

5<sup>th</sup> grade # 1 Identify and describe structures and functions in living systems.

# 2 Identify and describe reproduction and heredity of organisms.

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behavior

ulation as they relate to the

# 5 Explore the diversity and adaptations of organisms.

6<sup>th</sup> grade # 1 Investigate structure and functions in living systems.

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etermine the formation of an

nd adaptations of organisms.

7<sup>th</sup> grade # 1 Compare and contrast structure and function in living systems.

# 2 Explore the processes of the reproduction and heredity of organisms.

# 3 Determine how organisms co-exist in their environment.

# 4 Explore how environmental factors of population influence the formation of an ecosystem.

# 5 Examine survival strategies of organisms over many generations.

8<sup>th</sup> grade # 1 Analyze and relate structure and function in living systems.

# 2 Analyze genetic continuity of organisms.

# 3 Determine the economic factors that influence the regulation and behavior of organisms.

# 4 Examine the physical factors of populations as they relate to the formation of ecosystems.

Biology II # 4 Investigate the role that natural selection plays in maintaining diversity.

# 6 Examine the behavior of organisms.

An exciting look at the animal kingdom, shot at Busch Gardens and Sea World in Florida.

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## **Animals Without Backbones: The Invertebrate Story**

(Gr. 5-8) (2/20 Min.) (Purchase- \$16.00) (Rights-Unlimited)

**Block Feed Program: 1-2: 9-12-06; 2:00-2:36AM**

**Block Feed Programs: 1-2: 12-7-06; 5:23-5:59AM**

**Block Feed Programs: 1-2: 4-6-07; 5:20-5:56AM**

### **Correlations to Competencies from Miss. Science Framework**

5th grade # 1 Identify and describe structures and functions in living systems.

# 2 Identify and describe reproduction and heredity of organisms.

# 3 Determine factors that influence the regulation and behavior of organisms.

# 4 Examine the physical factors of populations as

they relate to the formation of an ecosystem.

# 5 Explore the diversity and adaptations of organisms.

6<sup>th</sup> grade # 1 Investigate structure and functions in living systems.

# 2 Compare and classify the reproduction and heredity of organisms.

# 3 Explore how changing resources will influence the regulation and behavior of organisms.

# 4 Explore how different populations determine the formation of an ecosystem.

# 5 Explore the unique characteristics and adaptations of organisms.

7<sup>th</sup> grade # 1 Compare and contrast structure and function in living systems.

# 3 Determine how organisms co-exist in their environment.

# 4 Explore how environmental factors of population influence the formation of an ecosystem.

# 5 Examine survival strategies of organisms over many generations.

8<sup>th</sup> grade # 1 Analyze and relate structure and function in living systems.

# 2 Analyze genetic continuity of organisms.

# 3 Determine the economic factors that influence the regulation and behavior of organisms.

# 4 Examine the physical factors of populations as they relate to the formation of ecosystems.

Take your students on a tour of the Everglades, coral reefs, Okefenokee Swamp, Atlantic beaches, coastal marshes and the Great Smokey Mountains in search of invertebrates in their natural habitat. Totally curriculum-linked, this 2-part video provides a complete survey of the major invertebrate phyla.

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## Basic Biology Series

(Gr. 5-8) (6/11-20 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-6: 12-12-06; 2:00-3:42AM**

**Block Feed Programs: 1-6: 4-10-07; 2:00-3:42AM**

**Block Feed Programs: 1-6: 5-25-07; 2:00-3:42AM**

### Correlations to Competencies from Miss. Science Framework

5<sup>th</sup> grade #1 Identify and describe structures and functions in living systems.

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#2 Identify and describe reproduction and heredity of organisms.

#3 Determine the factors that influence the regulation and behavior of organisms.

#5 Explore the diversity and adaptations of organisms.

6<sup>th</sup> grade #1 Investigate structure and functions in living systems.

#2 Compare and classify the reproduction and heredity of organisms.

#3 Explore how changing resources will influence the regulation and behavior of organisms.

7<sup>th</sup> grade #1 Compare and contrast structure and function in living systems.

#2 Explore the processes of the reproduction and heredity of organisms.

#3 Determine how organisms co-exist in their environment.

8<sup>th</sup> grade #1 Analyze and relate structure and function in living systems.

#2 Analyze genetic continuity of organisms.

Biology I #2 Investigate the biochemical basis of life.

#3 Investigate cell structures, functions, and methods of reproduction.

Biology II #2 Investigate chemical processes of the cell that maintain life.

#5 Apply principles of classification to groups of organisms.

Science Skills and Reasoning

#5 Investigate cell structures, functions, and methods of reproduction.

1. What Is Life? - Viewers will see and hear about the characteristics of all living things, how they contrast to non-living things.
2. How Living Things Are Structured - Program looks at one-celled organisms, cell colonies, tissues, organs and organ systems.
3. How Living Things Are Classified - Illustrates how all living things can be placed in a distinct phylum or division, class, order, family, genus and species.
4. The Kingdom of Plants - Examines the major branches and developmental trends of the plant kingdom.
5. The Kingdom of Animals - Students learn basic facts about the diversity of the animal kingdom, from one-celled protists to vertebrates.
6. Cells: The Basic Units of Life - Combines animation and fantastic microphotography to explore and examine the world of the cell, from its nucleus to its membrane.

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## Basics of Physics

(Gr. 5-8) (5/40 Min.) (Purchase-\$32.00) (School Year)

**Block Feed Programs: 1-5: 10-25-06; 2:15-4:39AM**

**Block Feed Programs: 1-5: 2-21-07; 2:17-4:41AM**

**Block Feed Programs: 1-3: 4-27-07; 4:05-5:44AM**

**Block Feed Programs: 4-5: 4-28-07; 2:00-2:45AM**

Energy is very important to all that happens in our universe. It appears in many forms and is responsible for sustaining life on our planet. This four-part series starts with an exploration of potential and kinetic energy and moves into a discussion of the main forms of energy; mechanical, heat, chemical, radiant, electrical, sound, and nuclear. In addition the program compares and contrasts nonrenewable and renewable energy resources.

This program includes a discussion of the main forms of energy; mechanical, heat, chemical, radiant, electrical, sound, and nuclear. Sounds play an important part of our world. This program describes how our ears work and the range of vibrations we are able to detect. The speed of sound and light are compared. The range of sounds that various animals can make and hear are discussed as well as concepts related to echo location. Other topics include frequency, reverberation, musical instruments, and the Doppler Effect. One of the programs is dedicated to Newton's Laws of Motion. Though Isaac Newton lived long before speedy forms of transportation he was able to formulate the three laws of motion which help to explain many of the natural phenomenon we come across on a regular basis.

1. Exploring Energy
  2. Exploring Heat
  3. Exploring Light and Color
  4. Exploring Sound
  5. Exploring Laws of Motion
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## **Biology: The Science of Life**

(Gr. 5-9) (12/20 Min.) (Purchase-48.00) (School Year)

**Block Feed Programs: 1-10: 10-21-06; 3:05-5:36AM**

**Block Feed Programs: 11-12: 10-24-06; 2:00-2:30AM**

**Block Feed Programs: 1-10: 2-17-07; 3:05-5:36AM**

**Block Feed Programs: 11-12: 2-20-07; 2:00-2:30AM**

This series seeks to promote understanding of biology in four areas of knowledge chosen to be of key importance by the American Association for the Advancement of Science: "How Cells Work", "How Matter and Energy Flow in the Living World", "How Plants and Animals Evolve", and "The Molecular Basis of Heredity."

1. DNA: The Master Molecule
2. Ecology: Organisms in Their Environment
3. Ecosystems: The role of A biotic Factors
4. Making New Life: The Basics of Reproduction
5. Molecules and Evolution
6. The Flow of Matter and Energy in the Living World: Photophythesis and Cellular Respiration
7. The Living Cell
8. The Microscopic World
9. The World of Animals
10. The World of Fungi
11. The World of Living Things
12. The World of Plants

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## **The Biology of Water**

(Gr. 7-12) (4/19-21 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Program: 1-4: 12-1-06; 4:05-5:24AM**

**Block Feed Program: 1-4: 12-12-06; 3:45-5:04AM**

**Block Feed Program: 1-4: 4-3-07; 2:00-3:19AM**

**Block Feed Program: 1-4: 4-10-07; 3:45-5:04AM**

### **Correlations to Competencies from Miss. Science Framework**

7<sup>th</sup> grade # 6 Explore the composition and changes of the Earth system.

8<sup>th</sup> grade # 4 Examine the physical factors of populations as they relate to the formation of ecosystems.

Earth Science

# 7 Explain how pecans affect other processes on Earth.

# 10 Describe the process of the water cycle.

Aquatic Science

# 2 Analyze the physical and chemical properties of water and how they affect the organisms that live in it.

# 3 Describe major geologic features of specific aquatic environments.

# 4 Describe the biodiversity and interactions among aquatic life.

# 5 Examine the unique properties of selected aquatic ecosystems.

The series examines the role of water as a sustainer of life.

1. Water: A Miraculous Substance - Examines the unique physical and chemical properties of water and its role in the origin of life.
  2. The Ocean Realm - Examines the intricate webs of food production and consumption that exist in the sea.
  3. The River of Life- Discover how fresh water is created from the vast oceans of salt water.
  4. Mud and Salt - This program looks at the environments called estuaries, created when fresh water returns to the sea.
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# Bioscope

(Gr. 4-7) (8/15 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-4: 10-20-06, 4:50-5:49AM**

**Block Feed Programs: 5-8: 10-21-06; 2:00-2:58AM**

**Block Feed Programs: 1-4: 2-16-07; 5:00-5:58AM**

**Block Feed Programs: 5-8: 2-17-07; 2:00-2:58AM**

## Correlations to Competencies from Miss. Science Framework

4<sup>th</sup> grade # 1 Investigate the ability of living things to adapt to their environment.

# 2 Explore the interactions of components in living systems.

5<sup>th</sup> grade # 1 Identify and describe structures and functions in living systems. # 3

Determine the factors that influence the regulation and behavior of organisms.

# 4 Examine the physical factors of populations as they relate to the formation of an ecosystem.

6<sup>th</sup> grade # 1 Investigate structure and functions in living systems.

# 3 Explore how changing resources will influence the regulation and behavior of organisms.

# 4 Explore how different populations determine the formation of an ecosystem.

# 5 Explore the unique characteristics and adaptations of organism.

7<sup>th</sup> grade # 1 Compare and contrast structure and function in living systems.

# 3 Determine how organisms co-exist in their environment.

# 4 Explore how environmental factors of population influence the formation of an ecosystem.

# 5 Examine survival strategies of organisms over many generations.

This film series brings to the classroom a visual presentation of living things and their environment. The life revealed in the programs ranges from the great whales to microscopic, single-celled plants and animals. Students are encouraged to explore their own place in the biosphere. Open-ended questions and "think time" built into each program offer students the opportunity to respond to what they see and hear.

1. Bioscope: The Life Sciences
2. Cells
3. The World of Living Things
4. Where Plants and Animals Live
5. Adaptation
6. The Natural Balance
7. Endangered Species
8. Frontiers in the Biosphere

# The Complete Cosmos

(Gr. 3-6) (25/10 Min.) (Purchase-N/A) (Rights - School Year)

**Block Feed Programs: 1-23: 10-17-06, 2:00-5:53AM**

**Block Feed Programs: 24-25: 10-18-06, 2:00-2:20AM**

**Block Feed Programs: 1-23: 2-13-07, 2:00-5:53AM**

**Block Feed Programs: 24-25: 2-14-07, 2:00-2:20AM**

## Correlation to Competencies from Miss. Science Framework

- 1<sup>st</sup> grade # 3 Identify and describe daily changes in the sky.
- # 4 Examine the structure of the Solar System.
- 2<sup>nd</sup> grade # 3 Explore the structure of the Solar System.
- # 4 Identify and describe weekly and monthly changes in the sky.
- # 9 Investigate the properties of color, heat, and light.
- 3<sup>rd</sup> grade # 3 Identify and describe the appearance of stars in the night sky.
- 4<sup>th</sup> grade # 3 Communicate an understanding of the interaction of bodies in the solar system.
- # 4 Identify and describe the visual and telescopic appearance of planets and moons.
- 5<sup>th</sup> grade # 7 Investigate the Earth as a part of the solar system.
- 6<sup>th</sup> grade # 7 Investigate the Earth in relation to the solar system.
- 7<sup>th</sup> grade # 7 Explain the causes of lunar phases, eclipses, and Earth's seasons.

A brilliant series on space and astronomy. With panache and clarity 25 ten-minute episodes probe the Solar System, our Milky Way Galaxy, and the depths of the Universe - each segment telling a crisp picture-driven story.

The Complete Cosmos is a continuous flow of superb graphic animation and the latest pictures of planets, their moons, the Sun, and deep space - an intelligent visual explosion uninterrupted by interviews or on-screen host.

1. Our Star is Born
2. Mercury
3. Venus
4. Blue Planet
5. Moon
6. Red Planet
7. Jupiter
8. Saturn
9. Uranus and Neptune
10. Realm of the Comets
11. Earth Patrol
12. Space Frontier

13. High Life
  14. Robots
  15. Where Next?
  16. Pioneers
  17. Eclipses and Aurorae
  18. Impact!
  19. Light Fantastic
  20. Lifequest
  21. Milky Way
  22. Hubble's Eye
  23. Infinity
  24. Big Bang, Big Crunch
  25. Black Holes, Dark Matter
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## **Debbie Greenthumb**

(Gr. 1-4) (4/10 Min.) (Purchase-\$16.00) (Rights-Unlimited)

**Block Feed Programs: 1-2: 9-29-06; 5:35-5:51AM**

**Block Feed Programs: 3-4: 9-30-06; 2:00-2:17AM**

**Block Feed Programs: 1-4: 4-20-07; 4:55-5:28AM**

### **Correlation to Competencies from the Miss. Science Framework**

- 1<sup>st</sup> grade # 1 Explore the basic patterns of living systems.
- # 2 Investigate the diversity of living things.
- 2<sup>nd</sup> grade # 1 Explore the functions and systems of living things.
- # 2 Research the diversity and interaction of living things.
- 3<sup>rd</sup> grade # 1 Investigate the interactions of objects and organisms.
- # 2 Explore the components of living systems.
- 4<sup>th</sup> grade # 1 Investigate the ability of living things to adapt to their environment.
- # 2 Explore the interactions of components in living systems.

Introduce your students to the world of plant life as they join Debbie Greenthumb and go on location to a greenhouse.

1. Plants Can Be Found Everywhere - Shot all over North America, a wide variety of plants and environmental conditions are shown.
2. Where Plants Come From - Seeds, spores, cuttings, runners, roots and bulbs are presented.
3. How Plants Grow - Discusses sprouting seeds to adult plants, plant parts and their functions.

4. The Importance of Plants to Our World - Besides providing food, plants are also responsible for releasing oxygen into the air.

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## **Earth Science**

(Gr. 4-8) (8/20-22 Min.) (Purchase - \$32.00) (Rights - School Year)

**Block Feed Programs: 1-8: 9-7-06; 2:30-5:05AM**

**Block Feed Programs: 1-8: 1-5-07; 2:30-5:05AM**

**Block Feed Programs: 1-3: 4-25-07; 4:50-5:49AM**

**Block Feed Programs: 4-8: 4-26-07; 2:00-3:35AM**

### **Correlations to Competencies from MS Science Framework**

3<sup>rd</sup> grade # 4 Discover how internal and external forces affect the Earth's surface.

4<sup>th</sup> grade # 5 Discover the effects of external forces on the Earth's surface.

5<sup>th</sup> grade # 6 Investigate the structure of the Earth.

6<sup>th</sup> grade # 6 Model the structure of the Earth system past and present.

7<sup>th</sup> grade # 6 Explore the composition and changes of the Earth system.

8<sup>th</sup> grade # 5 Investigate atmospheric movements that affect the Earth's system.

# 6 Investigate the Earth's geological past

This series combines spectacular live-action photography and computer animation with informative narration to give students a clear understanding of the subject. Definitive graphics and on-screen terminology reinforce learning.

1 Volcanoes: Fire from Within

2 Earthquakes: Shake, Rattle and Roll

3 Plate Tectonics: Solving the Puzzle

4 How Water Shapes the Earth

5 Meteor Strike

6 How Glaciers Shape the Earth

7 Weathering: How Soil is Formed

8 How the Wind Shapes the Earth

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## **Electricity and Magnetism**

(Gr. 4-6) (5/12-14 Min.) (Purchase-\$16.00) (Rights-Unlimited)

## **Block Feed Programs: 1-5: 4-24-07; 4:35-5:44AM**

### **Correlations to Competencies from Miss. Science Framework**

4<sup>th</sup> grade # 9 Examine the different forms of energy.

5<sup>th</sup> grade # 10 Examine the transformations of forms of energy.

6<sup>th</sup> grade # 10 Examine the transfer of energy in many different forms.

Extensive use of experimentation presents key concepts essential to understanding electricity and magnetism

1. A Spark in the Dark: Static Electricity - Discusses the three primary particles of the atom.
  2. Creating and Controlling Current Electricity – Discusses electrical terms as well as illustrating the differences between dry and wet cells.
  3. The Magic of Magnets - Explores magnetism and shows the relationship between magnetism and electricity
  4. Measuring and Using Electricity - Wattage, amperage, and voltage are introduced.
  5. The Generation of Electricity - Shows how generators are used to produce electricity.
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## **Elements of Chemistry**

(GR 9-12) (6/20 Min.) (Purchase-\$32.00)

**Block Feed Programs: 1-6: 10-24-06; 2:35-4:35AM**

**Block Feed Programs: 1-6: 2-20-07; 2:35-4:35AM**

**Block Feed Programs: 1-6: 4-28-07; 2:50-4:50AM**

This six-part series provides a detailed introduction to chemistry for high school students (grades 9 – 12) that follow the “National Science Education Standards.” Created by educators for classroom use, students will be engaged by the rich narration and imaginative images of the 20-minute programs. A ten-question quiz follows each video.

1. Acids, Bases, and Salts
  2. Building Blocks of Matter
  3. Carbon: The Element of Life
  4. Compounds and Reactions
  5. Gases, Liquids and Solids
  6. The Periodic Table
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# Endangered Environments

(Gr. 4-12) (6/11-25 Min.) (Purchase-\$32.00) (Rights-Unlimited)

**Block Feed Programs: 1-6: 5-25-07; 3:50-5:51AM**

## Correlations to Competencies from Miss. Science Framework

4<sup>th</sup> grade # 1 Investigate the ability of living things to adapt to their environments.

5<sup>th</sup> grade # 5 Explore the diversity and adaptations of organisms.

6<sup>th</sup> grade # 4 Explore how different populations determine the formation of an ecosystem.

# 5 Explore the unique characteristics and adaptations of organisms.

7<sup>th</sup> grade # 3 Determine how organisms co-exist in their environment.

# 4 Explore how environmental factors of population influence the formation of an ecosystem.

8<sup>th</sup> grade # 3 Determine the economic factors that influence the regulation and behavior of organisms.

# 4 Examine the physical factors of populations as they relate to the formation of ecosystems.

### Environmental Science

# 4 Investigate the major biomes of the world's ecosystems.

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# 5 Summarize the interrelationships among the resources and human activities in the local environment.

# 6 Research various environmental topics, such as major events, careers, history, and significant contributions.

### Aquatic Science

# 3 Describe major geologic features of specific aquatic environments.

# 5 Examine the unique properties of selected aquatic ecosystems.

# 6 Identify the impact of natural and human activity on aquatic ecosystems.

Botany # 8 Describe the ecological importance of plants.

### Science Skills and Reasoning

# 9 Investigate how organisms interact with their environment.

Biology I # 7 Investigate the interdependence and interactions that occur within an ecosystem.

1. Where Have All the Animals Gone? - The greatest threat to animals today is caused by humans--pollution, loss of habitat, hunting, black market, etc.
2. Our Wonderful Wetlands - Swamps, bogs, and marshes are seen in this on-location visit to some of our most valuable and least understood ecosystems.
3. The Desert's Struggle for Survival - Should deserts be used to accommodate the

needs of recreational, mining, etc., or be preserved as a refuge for rare desert plant and animal life.

4. Alaska: The Final Stand - This video chronicles the environmental and economic threats to the coastal forests of Alaska.

5. Where Eagles Fly - An environmental issues program about a copper mine in a wilderness area that is home to 3000 bald eagles.

6. A Day in the Rain Forest Through the Eyes of a Butterfly –A tropical rain forest is defined while viewing amazing video. Viewers witness the life cycle of a butterfly and their struggle for survival.

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## **Enviro-Tacklebox:**

(Gr. 5-8) (11/20 Min.) (Purchase-\$48.00) (School Year Rights)

**Block Feed Programs: 1-6: 9-22-06; 3:55-5:57AM**

**Block Feed Programs: 7-11: 9-23-06; 2:00-3:41AM**

**Block Feed Programs: 1-6: 1-19-07; 3:55-5:57AM**

**Block Feed Programs: 7-11: 1-20-07; 2:00-3:41AM**

**Block Feed Programs: 1-9: 5-5-07; 2:55-5:55AM**

**Block Feed Programs:10-11: 5-8-07; 2:00-2:40AM**

1. Decisions based on Science: Extreme Weather
2. Decisions Based on Science: Tackle Trash
3. Topics and Issues in Environmental Science: Common Sense
4. Topics and Issues in Environmental Science: Enviro rules
5. Topics and Issues in Environmental Science: spin on sprawl
6. Topics and Issues in Environmental Science: Student Solutions
7. Forces in the Environment: Erosion on the Move
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8. Forces in the Environment: Force of Floods
9. Forces in the Environment: Mover and Shakers
10. Forces in the Environment: Rebirth in Fire
11. Forces in the Environment: The Earth: Work in Progress

This series takes students on virtual field trip to the scientists that specialize in various fields of study. A visit to the Weather Channel studios where our experts reveals why North America experiences some of the most serious weather. Environmental issues and laws that protect it are explored as the Tacklebox Team explore the human impact on the earth on which we live.

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## Environmental Elements

(Gr. 5-9) (4/12-16 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-3: 9-23-06; 5:15-5:54AM**

**Block Feed Programs: 4: 9-26-06; 2:00-2:14AM**

**Block Feed Programs: 1-4: 1-24-07; 4:00-4:54AM**

### Correlations to Competencies from the Miss. Science Framework

8<sup>th</sup> grade # 5 Investigate atmospheric movements that affect the Earth's system.  
Earth Science

# 8 Describe the composition of the atmosphere.

1. The Nitrogen Cycle - Without nitrogen there can be no life as we know it. Video explains the role of this "key" chemical.
  2. The Oxygen Story - Engaging narration teaching about oxygen and the oxygen cycle.
  3. The Carbon Cycle – This program explains the natural process by which carbon atoms are recycled back and forth between the living and nonliving realms of nature.
  4. The Two Faces of Ozone - This program addresses the ozone close to the earth's surface as well as the layer high above in the stratosphere.
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## Exploring Dinosaurs

(Gr. 1-4) (1/14 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 9-20-06; 5:35-5:48AM**

**Block Feed Programs: 1-17-07; 5:40-5:53AM**

### Correlations to Competencies from the Miss. Science Framework

1<sup>st</sup> grade # 2 Investigate the diversity of living things.

2<sup>nd</sup> grade # 2 Research the diversity and interaction of living things.

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3<sup>rd</sup> grade # 1 Investigate the interactions of objects and organisms.

Study the dinosaur using artwork, fossils, animated models and footage from digs with Dr. Paul Sereno of the University of Chicago as the consultant.

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## Exploring Weather

(Gr. 5-8) (5/12-20 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-5: 9-23-06; 3:45-5:08AM**

**Block Feed Programs: 1-5: 1-24-07; 2:35-3:58AM**

### Correlations to Competencies from Miss. Science Framework

4<sup>th</sup> grade # 6 Explore changes that occur in the Earth's atmosphere.

7<sup>th</sup> grade # 6 Explore the composition and changes of the Earth system.

8<sup>th</sup> grade # 5 Investigate atmospheric movements that affect the Earth's system.

This five-part series will provide students with insight into the complicated science of meteorology.

1. The Atmosphere in Motion - Air masses, weather systems in motion, the water cycle, winds, precipitation, atmospheric pressure, the seasons, heat transfer, and more.
2. The Job of a TV Meteorologist - A behind-the-scenes look at how a meteorologist prepares daily weather report.
3. Severe Weather - Thunderstorms, tornadoes, and hurricanes are highlighted in this segment.
4. Flash to Bang (lightning) - Alan Sealls, a meteorologist at WGN-TV in Chicago, shares the latest knowledge scientists have about lightning.
5. Our Restless Atmosphere - Through exciting visuals and sound track, viewers will learn that our atmosphere is constantly changing.

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## The Five Senses

(Gr. 3-5) (1/24 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 9-15-06; 5:30-5:54AM**

**Block Feed Programs: 1-12-07; 5:30-5:54AM**

**Block Feed Programs: 1-24-07; 5:00-5:24AM**

### Correlations to Competencies from Miss. Science Framework

K # 2 Demonstrate an understanding of the five senses.

1<sup>st</sup> grade # 1 Explore the basic patterns of living systems.

2<sup>nd</sup> grade # 1 Explore the functions and systems of living things.

3<sup>rd</sup> grade # 2 Explore the components of living systems.

4<sup>th</sup> grade # 2 Explore the interactions of components in living systems.

## **Correlations to Competencies from Miss. Framework for Comprehensive Health**

Strand: Human Growth and Development

K # 1 Describe the functions of our five senses.

# 2 Differentiate between the senses.

2<sup>nd</sup> grade # 1 Explain the function of the five senses with emphasis on vision and hearing. Students will learn the importance of our sense organs. The senses of other animals are also discussed.

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## **Geologist's Notebook**

(Gr. 2 – 6 ) (6/11 Min.) (New Program for 2005 – 2006) (Purchase-\$16.00)

**Block Feed Programs: 1-4: 9-7-06; 5:10-5:52AM**

**Block Feed Programs: 5-6: 9-8-06; 2:00-2:21AM**

**Block Feed Programs: 1-4: 1-4-07; 5:10-5:53AM**

**Block Feed Programs: 5-6: 1-5-07; 2:00-2:21AM**

**Block Feed Programs: 1-6: 4-26-07; 3:40-4:44AM**

This series presents basic information about the make up of our Earth answering questions about the core as well as the crust. All of the Earths' natural resources are revealed and introduce students to the away people depend on these resources. This series is a good beginning geography lesson looking at various types of land forms, the effects of gravity, and water's effect on shaping the Earths' surface.

1. Digging Through Earth
  2. How to Make Mud Pie
  3. The Biggest Treasure Chest: Our Natural Resources
  4. Three Rocks
  5. Gases, Liquids and Solids
  6. The Periodic Table
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## **Geology Basics**

(Gr. 5-8) (5/10-20 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-2: 10-19-06; 5:13-5:54AM**

**Block Feed Programs: 3-5: 10-20-06; 2:00-2:35AM**

**Block Feed Programs: 1-2: 2-15-07; 5:15-5:56AM**

**Block Feed Programs: 3-5: 2-16-07; 2:00-2:35AM**

## **Correlations to Competencies from Miss. Science Framework**

- 5<sup>th</sup> grade # 6 Investigate the structure of the earth.
- 6<sup>th</sup> grade # 6 Model the structure of the earth's system past and present.
- 7<sup>th</sup> grade # 6 Explore the composition and changes of the earth system.
- 8<sup>th</sup> grade # 6 Investigate the Earth's geological past.

1. All About Rocks and Minerals: Their Formation and Importance - Students will discover how rocks and minerals are formed and their uses from building materials to fuel sources.
2. Erosion and Weathering - For ease of lesson planning, this video is divided into three major sections: physical weathering, chemical weathering and erosion.
3. Introduction to Geology - Looks at the diversity of our planet's surface, its internal structure, definitions of geology.
4. Mountains, Volcanoes, and Earthquakes - Demonstrates the dynamics of the plate tectonics theory.
5. Glaciers: Nature's Conveyor Belt - Experience the wonders of glaciers with this beautifully photographed video that demonstrates how today's land forms were created.

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## **How to Prepare a Science Fair Project**

(Gr. 5-9) (1/25 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 12-16-06; 5:30-5:48AM**

**Block Feed Programs: 4-14-07; 5:30-5:48AM**

## **Correlations to Competencies from Miss. Science Framework**

Earth Science

# 13 Demonstrate the proper use of scientific methods and investigative techniques.

Physical Science

# 1 Demonstrate the proper use of scientific methods and investigative techniques.

Science Skills and Reasoning

# 2 Utilize critical thinking and scientific problem solving in designing, and performing scientific research and experimentation.

# 3 Interpret and communicate results of scientific investigations in oral,

written, and graphic form.

This program will acquaint students with steps and procedures of preparing a science fair project for school, district, or state competition.

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## **Human Body Systems**

(Gr. 7-12) (8/27 Min.) (Purchase-\$32.00) (School Year)

**Block Feed Programs: 1-8: 9-28-06; 2:35-5:25AM**

**Block Feed Programs: 1-3: 1-27-07; 4:58-5:58AM**

**Block Feed Programs: 4-8: 1-30-07; 2:00-3:50AM**

The systems of the human body are explored in this core-curriculum biology series. Each program combines live action with computer animation and graphics to illustrate the various organs and functions of the body.

1. The Circulatory System
  2. The Digestive System
  3. The Endocrine System
  4. The Excretory System
  5. The Nervous System
  6. The Reproductive System
  7. The Respiratory System
  8. The Skeletal and Muscular System
- 

## **Junior Space Scientist**

(Gr. 1-4) (3/8-10 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-3: 10-3-06; 4:55-5:23AM**

**Block Feed Programs: 1-3: 1-30-07; 4:50-5:18AM**

**Block Feed Programs: 1-3: 4-17-07; 5:30-5:58AM**

### **Correlations to Competencies from Miss. Science Framework**

1<sup>st</sup> grade # 3 Identify and describe daily changes in the sky.

# 4 Examine the structure of the solar system.

2<sup>nd</sup> grade # 3 Explore the structure of the Solar System.

# 4 Identify and describe weekly and monthly changes in the sky.

3<sup>rd</sup> grade # 3 Identify and describe the appearance of stars in the night sky.

4<sup>th</sup> grade # 3 Communicate an understanding of the interaction of bodies in the solar system.

# 4 Identify and describe the visual and telescopic appearance of planets and moons.

Three-part series designed to introduce students to the sky and beyond.

1. Our Solar System - The planets of our solar system through video taken in space, terms such as gravity, orbit, rotation, stars, and density are presented.
2. Voyage to the Moon - Students get a close-up look at the moon through the eyes of the astronauts, concepts such as moon phases and gravity are explored.
3. Riding In the Sky - Brief history of man's attempt to fly, the space programs and their major accomplishments are reviewed.

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## Junior Zoologist

(Gr. 1-4) (4/10-13 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-4: 10-3-06; 4:03-4:53AM**

**Block Feed Programs: 1-4: 1-30-07; 3:55-4:45AM**

**Block Feed Programs: 1-4: 4-17-07; 4:35-5:25AM**

### Correlations to Competencies from Miss. Science Framework

1<sup>st</sup> grade # 1 Explore the basic patterns of living systems.

# 2 Investigate the diversity of living things.

2<sup>nd</sup> grade # 2 Research the diversity and interaction of living things.

3<sup>rd</sup> grade # 1 Investigate the interactions of objects and organisms.

4<sup>th</sup> grade # 1 Investigate the ability of living things to adapt to their environment.

# 2 Explore the interactions of components in living systems.

This series provides students with an introduction to the animal kingdom and develops an appreciation for animals, their habits, characteristics, and life cycles.

1. Mammals - Introduction to mammals and their special characteristics.
2. Fish, Amphibians, Reptiles - The anatomy and life cycles of these animals is discussed and illustrated.
3. Birds - Students will learn why birds are unique, and about extinction and endangered species.

4. Insects - Learn the harm insects do as well as the good they provide nature and mankind.

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## **Natural Phenomena**

74 (Gr. 5 8 ) (11/20 Min.) (Purchase-\$32.00)

**Block Feed Programs: 1-2:10-31-06; 5:20-5:50AM**

**Block Feed Programs: 3-6: 11-1-06; 2:00-3:02AM**

**Block Feed Programs: 1-2: 2-27-07; 5:25-5:55AM**

**Block Feed Programs: 3-6: 2-28-07; 2:00-3:02AM**

**Block Feed Programs: 1-6: 5-22-07; 3:20-4:53AM**

The programs use video footage and computer graphics to show the impact volcanoes and earthquakes have in shaping the Earth's surface. Programs provide visuals to explore how hurricanes and tornadoes occur and the affect of their incredible power. The series also explains the importance of the study of rocks and fossils and what that might reveal.

1. Earthquakes, Volcanoes, and Other Earth Movements
2. Geysers, Lava and Hot Spots
3. Hurricanes, Tornadoes and Other Weather
4. Mountains and Mountain Building
5. Rocks, Fossils and Earth History
6. Spectacular Canyons

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## **Newton's Cradle**

(Gr. 4-8) (3/24 Min.) (Purchase - \$16.00) (Rights - School year)

**Block Feed Programs: 1-3: 12-8-06; 4:15-5:23AM**

**Block Feed Programs: 1-3: 5-12-07; 2:00-3:08AM**

### **Correlations to Competencies from MS Science Framework**

5<sup>th</sup> grade # 9 Investigate the effect motions and forces have on objects.

6<sup>th</sup> grade # 9 Evaluate the effect of force on the motion of an object.

7<sup>th</sup> grade # 9 Investigate motions and forces.

8<sup>th</sup> grade # 9 Explore the application of simple and complex machines.

This 3-part series uses a unique approach to bring Newtonian physics to life for students. It presents Newton as a vital young man brimming with enthusiasm as he explains some of the important ideas he conceived while attending Cambridge University. Bridging the

centuries, he takes viewers from the early foundation of physics to contemporary experiments clearly demonstrating his laws of motion in present-day applications.

1. A Brief History of Motion
  2. Newton's First Two Laws of Motion
  3. Newton's Third Law and the Law of Gravity
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## **Our Wondrous Oceans**

(Gr. 5-8) (2/21 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-2: 12-15-06; 3:47-4:28AM**

**Block Feed Programs: 1-2: 4-13-07; 3:46-4:28AM**

### **Correlations to Competencies from Miss. Science Framework**

5<sup>th</sup> grade # 6 Investigate the structure of the earth.

6<sup>th</sup> grade # 6 Model the structure of the earth past and present.

7<sup>th</sup> grade # 6 Explore the composition and changes of the earth system.

8<sup>th</sup> grade # 5 Investigate atmospheric movements that affect the earth's system.

This two-part video series is a fascinating and instructive journey of exploration into the ocean's mysteries.

1. Oceans: The Cradle of Life - Segments on how oceans have changed, ocean topography, plate tectonics, marine life.
  2. Planet Water - Segments on ocean current, water cycle, properties of water, human affect on oceans.
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## **Physics: What Matters, What Moves**

(Gr. 7-12) (6/15 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-6: 11-10-06; 3:05-4:29AM**

**Block Feed Programs: 1-2: 3-10-07; 5:25-5:53AM**

**Block Feed Programs: 3-6: 3-20-07; 2:00-3:00AM**

### **Correlations to Competencies from Miss. Science Framework**

7<sup>th</sup> grade # 9 Investigate motions and forces.

# 10 Investigate the sources of energy.

8<sup>th</sup> grade # 10 Investigate the transfer of energy.

## Physical Science

# 5 Investigate matter in motion.

# 6 Describe sources, uses, and effects of energy.

# 8 Explain the continuum of the electromagnetic spectrum.

# 9 Recognize the interrelationships of electricity and magnetism.

Physics I # 4 Explore the concepts and relationships among work, power, and energy.

# 6 Investigate the principles related to electromagnetic radiation.

Physics II # 1 Investigate mechanics of physical motion.

# 5 Investigate the principles of Quantum Theory.

# 6 Investigate the principles of nuclear physics.

The programs in this series are designed to present the complexities of physics that students will find relevant to their own lives. Physics becomes accessible and enjoyable for junior high and high school students.

1. Electromagnetic Force
2. What is Energy?
3. Gravity-Just Between the Two of Us
4. The Nature of Light
5. Motion-Everything Moves!
6. Nuclear Forces (Strong and Weak)

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## Science in Focus

(Gr. 6-9) (14/23 Min.) (Purchase - \$64.00) (Rights - Unlimited)

**Block Feed Programs: 1-10: 9-26-06; 2:16-5:47AM**

**Block Feed Programs: 11-14: 9-27-06; 2:00-3:23AM**

**Block Feed Programs: 1-3: 1-25-07; 4:55-5:54AM**

**Block Feed Programs: 4-14: 1-26-07; 2:00-5:55AM**

### Correlations to Competencies from Miss. Science Framework

6<sup>th</sup> grade # 2 Compare and classify the reproduction and heredity of organisms.

# 4 Explore how different populations determine the formation of an ecosystem.

# 10 Examine the transfer of energy in many different forms.

7<sup>th</sup> grade # 2 Explore the processes of the reproduction and heredity of organisms.

# 4 Explore how environmental factors of population influence the formation of an ecosystem.

# 8 Investigate chemical and physical properties of matter.

# 10 Investigate the sources of energy.

- 8<sup>th</sup> grade # 2 Analyze genetic continuity of organisms.  
# 4 Examine the physical factors of populations as they relate to the formation of ecosystems.  
# 10 Investigate the transfer of energy.  
Physical Science  
# 6 Describe sources, uses, and effects of energy.  
# 8 Explain the continuum of the electromagnetic spectrum.

New techniques in interactive education captivate students' attention and stimulate critical scientific thinking skills while teaching factual information. Each program has about five modules contouring imaginative visuals that develop concepts, pose problems and design experiments.

1. Control Mechanisms
2. Energy
3. Enzymes
4. The Food Web and Energy
5. Heredity and Genetics
6. Waste and Global Pollution
7. The Electromagnetic Spectrum and Vision
8. Energy: Forms and Transfer
9. Heat and Energy
10. Information Technology: Coding and Transmission
11. Information Technology: Storage and Retrieval
12. Metals and Alloys
13. Recycling and Energy
14. Sound

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## **Season Under the Sun:**

(Gr. 3-5) (4/21 Min.) (Purchase-\$16.00) (School Year)

### **Block Feed Programs: 1-4: 5-17-07; 4:37-5:58AM**

This four-part series explains why seasons change as the earth orbits the sun. Through graphics and live footage, students see how and why the sunshine they receive varies throughout the year, and how changes in sunlight energy affect plants, animals, and people around them and around the world. Each show gives basic, essential information about why seasons change.

1. Autumn
2. Spring
3. Summer
4. Winter

## Science in Your Own Backyard

(Gr. 5-8) (3/10 Min.) (Purchase - \$16.00) (Rights - School Year)

**Block Feed Programs: 1-3: 12-13-06; 4:50-5:37AM**

**Block Feed Programs: 1-3: 4-11-07; 4:50-5:37AM**

### Correlations to Competencies from Miss. Science Framework

5th grade # 3 Determine the factors that influence the regulation and behavior of organisms.

# 5 Explore the diversity and adaptations of organisms.

6<sup>th</sup> grade # 3 Explore how different populations determine the formation of an ecosystem.  
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# 5 Explore the unique characteristics and adaptations of organisms.

7<sup>th</sup> grade # 5 Examine survival strategies of organisms over many generations.

This series of three programs explores the world of small creatures, revealing their habits and characteristics through remarkable close-up photography.

1. Praying Mantis
2. Spiders
3. Insects and Spiders: The Private World of Jean Henri Fabre

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## Simply Science

(Gr. 9-12) (13/30 Min.) (Purchase-\$64.00)

**Block Feed Programs: 1-4: 9-5-06; 4:00-5:48AM**

**Block Feed Programs: 5-12: 9-6-06; 2:00-5:37AM**

**Block Feed Programs: 13: 9-7-06; 2:00-2:27AM**

**Block Feed Programs: 1-4: 1-2-07; 4:00-5:48AM**

**Block Feed Programs: 5-12: 1-3-07; 2:00-5:37AM**

**Block Feed Programs 13: 1-4-07; 2:00-2:27AM**

Change, diversity, energy, equilibrium, matter and systems—these major themes unify the natural science disciplines. Simply Science introduces these key concepts and principles of science and challenges students to identify how their place in the

world is affected by the laws of nature and the technology around them. The videos in this series incorporate vibrant images, engaging presenters, graphics, animation and experiments often difficult to manage in the classroom. This combination effectively helps students understand the scientific principles behind natural events and the technology they use in their daily lives. They are encouraged to ask questions, investigate, experiment and develop problem-solving skills as they gather, analyze and assess scientific information, test scientific principles and study the application of science as technology.

1. A Close-Up of Growth
2. Conditions for Life
3. Energy Converters
4. Kingdoms
5. Maintaining Equilibrium
6. Matter and Energy on the Move
7. Producers Capture Solar Energy
8. Solar Energy in the biosphere
9. Systems, energy and Matter
10. Water Through the Ecosystem
11. Water: Highway of Life
12. Water's Physical Properties
13. Water's Structure

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## **Spin Around the Solar System**

(Gr. 5-8) (8/15 Min.) (Purchase-\$32.00) (School Year)

**Block Feed Program: 1-8: 10-14-06; 3:10-5:42AM**

**Block Feed Program: 1-8: 2-10-07; 3:10-5:42AM**

This in-depth series covers a wide range of essential matters about the solar system. Such topics as planet formation, gravity, nuclear fusion, and the Big Bang theory are presented concisely with the help of specially designed graphics and animations. Each of the eight programs can be presented as a freestanding lesson on its own, but the programs also work together to reinforce important concepts and to add breadth and depth to a student's cumulative knowledge.

1. How the Solar System Works
2. Look to the Stars
3. Moon Dance
4. Our Rocky Neighbors
5. The Outer Planets
6. The Small Pieces: Asteroids, Comets, and Pluto

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## **Stargazing**

(Gr. 7-12) (6/30 Min.) (School Year) (Purchase-\$32.00)

**Block Feed Program: 1-6: 9-9-06; 2:45-5:46AM**

Get to know the night sky. This series will show you how to watch and enjoy the stars with a pair of binoculars, chart their position, and identify stellar formations. Each program identifies stars visible at each quarter of the year in the Northern and Southern skies. Programs in the series also explore comets, asteroids and meteors as they hustle through space in apparent random.

1. How the Sky Works
2. The Cosmos: April to June
3. The Cosmos: January to March
4. The Cosmos: July to September
5. The Cosmos: October to December
6. Vagabonds

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## **Tunnels**

(Gr. 4-7) (1/19 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 4-20-07; 5:35-5:53AM**

## **No correlations to Competencies from MS Science Framework**

This production includes the history of tunnels from ancient Egypt and Rome to the present, and shows how modern tunnels are constructed.

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## **The Weather Classroom**

(Gr. 1-12) (9/25 Min.) (Purchase - \$32.00) (Rights - Unlimited)

**Block Feed Programs: 1-9: 9-29-06; 2:00-5:33AM**

### **Correlations to Competencies from Miss. Science Framework**

1<sup>st</sup> grade # 6 Explore changes that occur in the earth's atmosphere.

2<sup>nd</sup> grade # 6 Analyze changes that occur in the earth's atmosphere.

3<sup>rd</sup> grade # 6 Analyze changes in weather.

4<sup>th</sup> grade # 6 Explore changes that occur in the earth's atmosphere.

8<sup>th</sup> grade # 8 Investigate atmospheric movements that affect the earth's system.

Earth Science

# 9 Describe the processes involved in weather and climate.

Explore the science behind the weather, only on The Weather Classroom, the exciting new series from The Weather Channel! Visit [www.weather.com](http://www.weather.com) for weather education resources, online teacher's guides and newsletters

1. People & Weather
  2. Weather & Water
  3. Weather & Geography
  4. Severe Winter Weather
  5. The Atmosphere
  6. The Sky Show
  7. Tornadoes
  8. Hurricanes
  9. Careers in Meteorology
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## **Weather Smart**

(Gr. 3-8) (10/15 Min.) (Purchase-\$32.00) (School Year)

**Block Feed Programs: 1-10: 9-8-06; 2:25-4:56AM**

**Block Feed Programs: 1-10: 1-5-07; 2:25-4:56AM**

Weather Smart is a series comprised of ten weather programs designed for grades 3-8. Each program teaches weather principles at an age-appropriate level and is supported by quizzes, puzzles, exercises, coloring pages, Internet references, and hands-on experiments to make the weather come alive for young students. The series is an entire “course” in the wonders of weather, while each program can stand alone in teaching the various facets of meteorology. The Weather Smart series is written and produced by Alan Sealls, an award-winning meteorologist, who has worked for WGN-TV, and CNN, whose work appears in science textbooks, CD-ROMs, and educational TV programs. The spark for creating this series comes from over a dozen years of experience of weather presentations for elementary school students. These delightful and entertaining programs are geared toward children’s fascination with weather and their desire to understand how weather works.

1. Ozone and Pollution
  2. Climate
  3. Forecasting and Weather Instruments
  4. Heat, Wind and Pressure
  5. Hurricanes
  6. The Water cycle and Clouds
  7. Thunderstorms
  8. Tornadoes
  9. Weather
  10. Winter and snow
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## **Work, Energy, and the Simple Machine**

(Gr. 5-8) (4/7-12 Min.) (Purchase - \$16.00) (Rights - Unlimited)

**Block Feed Programs: 1-4: 11-1-06; 3:55-4:36AM**

**Block Feed Programs: 1-4: 2-28-07; 4:00-4:41AM**

### **Correlations to Competencies from Miss. Science Framework**

5<sup>th</sup> grade # 10 Examine the transformations of forms of energy.

6<sup>th</sup> grade # 10 Examine the transfer of energy in many different forms.

7<sup>th</sup> grade # 10 Investigate the sources of energy.

8<sup>th</sup> grade # 9 Explore the application of simple and complex machines.

# 10 Investigate the transfer of energy.

Students are introduced to the precise meaning of “work” as used in science.

1. Work and Energy - How scientists work, related formulas provided, potential and kinetic energy defined and illustrated.
2. Lever, Wheel and Axle, Pulley - Principles behind each of these simple machines are illustrated and demonstrated.
3. Inclined Plane, Wedge, Screw - These simple machines have been grouped together because they are related.
4. Compound Machines - A compound machine is made up of two or more simple machines.