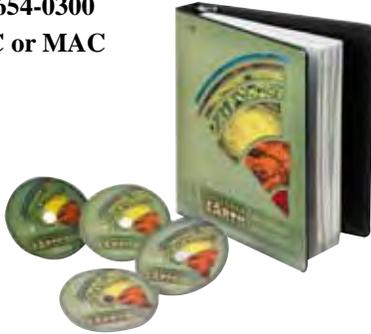


Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

8th Grade-Earth and Space Science

THE LAYERED EARTH GEOLOGY SIMULATION SOFTWARE

#654-0300
PC or MAC



(3)SC.7.E.6.2 Identify the patterns within the rock cycle and relate them to surface events.

(1)SC 7.E.6.5 Explore the scientific theory of plate tectonics by describing how the movement of Earth's crustal plates causes both slow and rapid changes in Earth's surface ,including volcanic eruptions, earthquakes, and mountain building.

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 6-8 texts and topics.

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

CCSS.ELA-LITERACY.W.8.7

Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

CCSS.ELA-LITERACY.SL.8.1

Engage effectively in a range of collaborative discussions with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

CCSS.ELA-LITERACY.SL.8.1.D

Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

CCSS.ELA-LITERACY.SL.8.2

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.RI.8.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

TOPICS COVERED IN THE SOFTWARE:



The Solid Earth

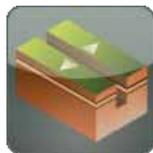
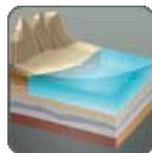


Plate Tectonics



Minerals and Rocks



Shaping the Earth



Earthquakes



Volcanoes



Geologic Time

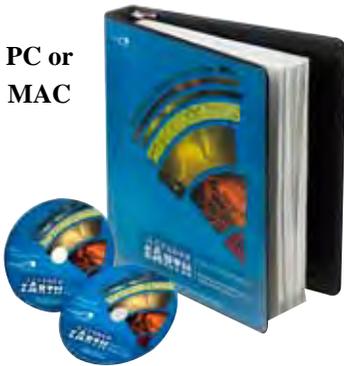
25+ Lesson Plans correlated to state and national standards that meet curriculum needs.

- Accurate and Innovative Simulations that engage students, illustrate and enhance basic concepts.
- In-depth Discovery Exercises that foster data collection and analytical thinking skills.
- Learner Strategies including anticipation guides, multiple intelligences, and graphic organizers.
- Pre and Post-Assessment Activities to test student knowledge and reinforce basic concepts.
- Links and Extensions provide connections to mathematics, literacy, history, travel, and STSE (Science, Technology, Society, and the Environment).

Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

THE LAYERED EARTH METEOROLOGY SIMULATION SOFTWARE

PC or
MAC



#654-0305

(2) SC. 6.E.7.4 Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.

(1) SC.6.E.7.5 Explain how energy provided by the sun influences global patterns of atmospheric movement and the temperature differences between air, water, and land.

CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

CCSS.ELA-LITERACY.W.8.7

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CCSS.ELA-LITERACY.SL.8.1

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CCSS.ELA-LITERACY.SL.8.1.D

Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

CCSS.ELA-LITERACY.SL.8.2

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.RI.8.4

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

20+ Lesson Plans correlated to state and national standards that meet curriculum needs.

- Clear articulation of Learner Expectations for each lesson through the use of an introductory Guiding Questions, bulleted Key Concepts, and a Lesson Summary highlighting the main points of each unit
- An attractive learning environment with clear and easy to follow Progression of Concepts
- Accurate and innovative Visualizations, and Simulations that engage students and illustrate and enhance basic concepts
- In-depth Discovery Exercises that foster observation, measurement, mathematical, and analytical thinking skills
- Pre- and Post-Assessment Activities to test student knowledge and learning, and reinforce basic concepts
- Incorporates Learner Strategies from current educational research such as anticipation guides, multiple intelligences, and graphic organizers
- Numerous Links and Extensions for a rich learning environment that provide connections to mathematics, literacy, history, travel, and STSE (Science, Technology, Society, and the Environment)

TOPICS COVERED IN THE SOFTWARE:



The Atmosphere



Earth's Energy Balance



Atmospheric Circulation



Weather



Climate

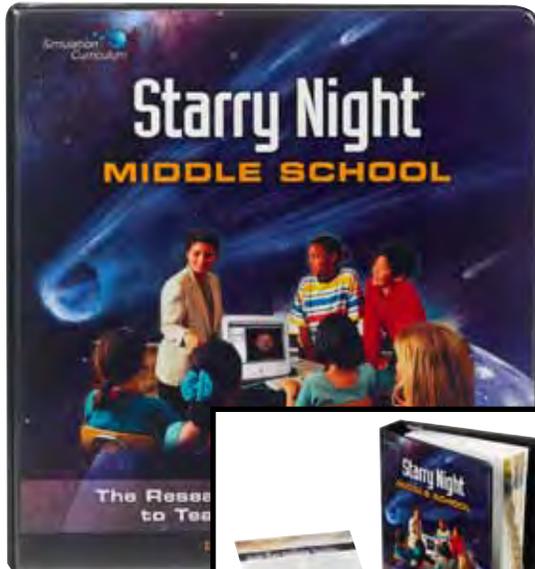


Climate Change

Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

8th Grade-Earth and Space Science

STARRY NIGHT SIMULATION CURRICULUM SOFTWARE



#654-0294
PC or MAC



(2) SC.8.E.5.3 Distinguish the hierarchical relationships between planets and other astronomical bodies relative to solar system, galaxy, and universe, including distance, size, and composition.

(1) SC.8.E.5.5 Describe and classify specific physical properties of stars: apparent magnitude (brightness), temperature (color), size, and luminosity (absolute brightness).

(1) SC.8.E.5.7 Compare and contrast the properties of objects in the Solar System including the Sun, planets, and moons to those of Earth, such as gravitational force, distance from the Sun, speed, movement, temperature, and atmospheric conditions.

(3) SC.8.E.5.9 Explain the impact of objects in space on each other including: 1. the Sun on the Earth including seasons and gravitational attraction 2. the Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body.

CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 6-8 texts and topics.

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

CCSS.ELA-LITERACY.W.8.7

Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

CCSS.ELA-LITERACY.SL.8.1

Engage effectively in a range of collaborative discussions with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

CCSS.ELA-LITERACY.SL.8.1.D

Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

CCSS.ELA-LITERACY.SL.8.2

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

28 Lesson Plans correlated to state and national standards and extensive teacher resources.

- Accurate visualizations and simulations that allow students to make precise observations of Moon phases, motions of the Sun and planets and much more
- Interactive computer exercises and hands-on activities that encourage questioning, experimentation and exploration and accommodate diverse learning styles
- Pre- and post-assessment resources with recommendations for improved student performance
- Flexible teaching models for easy adaptation to pacing and classroom needs
- Opportunities to develop key skills: observation, data collection, analytical thinking and discovery
- Extensions that connect to topics in math, physics, language arts, social studies and technology

Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

8th Grade-Earth and Space Science

Original Trippensee Planetarium

110 Volt



#653-3010

(3) SC.8.E.5.9 Explain the impact of objects in space on each other including: 1. the Sun on the Earth including seasons and gravitational attraction 2. the Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body.

Create the motions of the earth, sun, and moon simultaneously using the Trippensee® planetarium. Move the arm to dramatically demonstrate these relationships. The light in the sun follows the revolving earth to show solar, lunar, and annular eclipses; phases of the moon; seasonal changes; night and day; and twilight.

8th Grade-Physical Science



#615-0175

Floating Magnets

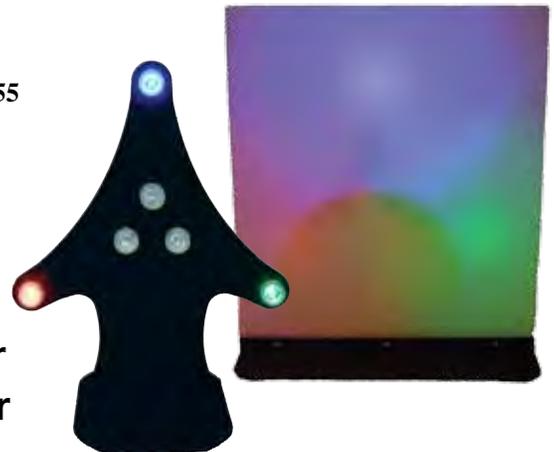
(2) SC.6.P.13.1 Investigate and describe types of forces including contact forces and forces acting at a distance, such as electrical, magnetic, and gravitational.

Demonstrate that like poles attract and unlike poles repel. Four magnetized discs appear to "float" above each other.

Includes: plastic base, 4 ceramic disk magnets, rod, hardware and instructions.

#614-0655

Color Mixer



(1)SC.6.P.10.1 Illustrate that the sun's energy arrives as radiation with a wide range of wavelengths, including infrared, visible, and ultraviolet, and that white light is made up of a spectrum of many different colors.

Color science has always been difficult for students to grasp. Many flat out refuse to believe that white light is actually composed of all the colors. It's hard to blame them, as this does seem counter-intuitive. How can something as pure as the color white be made up of multitudes of other colors? or cheap but flimsy. Composed of 1/8" steel and using 6 high quality LEDs, our Color Mixer is every bit as robust as other versions. A small LCD screen displays the exact percentage of red, green, or blue light you are shining. Add in 3 projection screens, and you have a world class unit.

Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

8th Grade-Physical Science

CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 6-8 texts and topics.

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

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CCSS.ELA-LITERACY.W.8.7

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CCSS.ELA-LITERACY.SL.8.1

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CCSS.ELA-LITERACY.SL.8.1.D

Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

CCSS.ELA-LITERACY.SL.8.2

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.



Energy Transfer Kit

(1) SC.7.P.11.4 Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.

Study heat and light with the simplest of materials - a black can, a silver or white can and a connecting copper bar. Measure the temperature inside dark and shiny bright cans to determine the different ways light and heat are absorbed and radiated. Fill both cans with water - one with hot, one with cold - and connect them with the included energy transfer bar. Observe how the temperature of the water changes.

#612-1055

Laser Tank

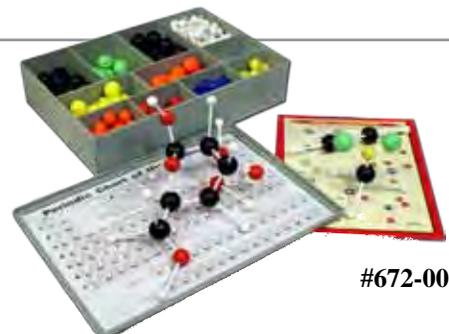
(2) SC.7.P.10.3 Recognize that light waves, sound waves, and other waves move at different speeds in different materials.

Show some of the more curious aspects of optics. How? By focusing on its effects in water. Light only moves at 75% its vacuum speed in water, which causes a ray to bend at the air/water interface, a phenomenon known as refraction. If the angle is steep, the ray will reflect off this interface instead. We use a low power laser beam and a circular tank filled with water to demonstrate refraction and reflection.

As the tight, bright beam bends, its angle can be read on the scale printed around the tank. The laser is permanently fixed to the tank and can be pointed at any angle. Should you wish, you can fill the tank with mineral oil or other liquids to vary the effect. Laser meets US safety standards and tank is fully water-tight.



#614-0665



#672-0000

Atomic Model Set

(5) SC.8.P.8.5 Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter. Use this set to model different organic and inorganic compounds. Includes 150 connecting lugs, 370 colored balls, molded storage box with compartments and Periodic Table of the Elements.

Excellent science resources to cover both "Fair Game" and heavily tested FCAT benchmarks

8th Grade-Life Science

CCSS.ELA-LITERACY.RST.6-8.4

Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 6-8 texts and topics.

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

CCSS.ELA-LITERACY.W.8.7

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CCSS.ELA-LITERACY.SL.8.1

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CCSS.ELA-LITERACY.SL.8.1.D

Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

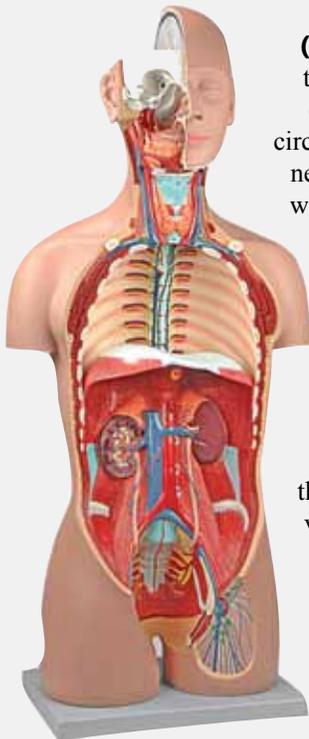
CCSS.ELA-LITERACY.SL.8.2

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

Deluxe Human Torso



(2) SC.6.L.14.5 Identify and investigate the general functions of the major systems of the human body (digestive, respiratory, circulatory, reproductive, excretory, immune, nervous, and musculoskeletal) and describe ways these systems interact with each other to maintain homeostasis.

"Fancy Fran" is our finest torso model available and will prove indispensable to any anatomy lab. The open back exposes muscular layers, vertebral column and nerve branches. The head is open to yield a full view of the brain on one side, while the dissected neck shows muscular, neural, vascular and glandular features. Important anatomical structures are numbered and referenced on the included key card. Dissectible male and female urogenital systems are interchangeable.

#642-0500

Classroom Owl Pellet Kit

(4) SC.7.L.17.2 Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.

This kit features a food web poster, vole skeleton poster, and bone sorting chart poster showing the bones of rodents, shrews, moles and birds.

We include 15 large, heat sterilized, individually wrapped barn owl pellets. Teacher's Guide contains background information, teaching plans, lab guide, projects, skull keys and references.



15 Pellet Kit #635-4910

8th Grade Common Core Correlations

Depending on the activities, experiments and performance assessments chosen for the students, the following common core standards may be applicable.

WRITING

Text Types and Purposes:

CCSS.ELA-LITERACY.W.8.1

Write arguments to support claims with clear reasons and relevant evidence.

CCSS.ELA-LITERACY.W.8.1.A

Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.

CCSS.ELA-LITERACY.W.8.1.B

Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.

CCSS.ELA-LITERACY.W.8.1.D

Establish and maintain a formal style.

CCSS.ELA-LITERACY.W.8.1.E

Provide a concluding statement or section that follows from and supports the argument presented.

CCSS.ELA-LITERACY.W.8.2

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

CCSS.ELA-LITERACY.W.8.2.A

Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

CCSS.ELA-LITERACY.W.8.2.B

Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

CCSS.ELA-LITERACY.W.8.2.D

Use precise language and domain-specific vocabulary to inform about or explain the topic.

CCSS.ELA-LITERACY.W.8.2.E

Establish and maintain a formal style.

CCSS.ELA-LITERACY.W.8.2.F

Provide a concluding statement or section that follows from and supports the information or explanation presented.

PRODUCTION AND DISTRIBUTION OF WRITING

CCSS.ELA-LITERACY.W.8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Research to Build and Present Knowledge:

CCSS.ELA-LITERACY.W.8.7

Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

Range of Writing:

CCSS.ELA-LITERACY.W.8.10

Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

SPEAKING AND LISTENING

Comprehension and Collaboration:

CCSS.ELA-LITERACY.SL.8.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.

CCSS.ELA-LITERACY.SL.8.1.A

Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

CCSS.ELA-LITERACY.SL.8.1.B

Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

CCSS.ELA-LITERACY.SL.8.1.C

Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.

CCSS.ELA-LITERACY.SL.8.1.D

Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

Presentation of Knowledge and Ideas:

CCSS.ELA-LITERACY.SL.8.4

Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

CCSS.ELA-LITERACY.SL.8.5

Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.