Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 6

Readorium Content: In Readorium, students choose **science books** that interest them or teachers may lock or unlock specific books for classes, groups, or individuals. All students can understand the same rich content because the readability levels of the chapters and the supports students receive automatically adjust to their individual needs as they read. Once students receive tokens for completing books, they may select magazine articles or National Science Foundation videos. They may also participate in game-like activities based on the concepts and vocabulary they just learned. Teachers can log into the **Teacher Resource Center** to view student data and download resources and lessons based on this data. The following chart shows the content available for students by the Next Generation Sunshine State Science Standards. Some content applies to more than one standard.

<table>
<tr><th colspan="3">Readorium Alignment with Next Generation Sunshine State Standards: Grade 6</th></tr>
<tr><th colspan="3">SC.6.P - Physical Science – Grade 6</th></tr>
<tr><th>Readorium Books
By Standard</th><th>Magazine Articles (A) and Science
Videos (V) By Standard</th><th>Teacher Resource Center
Classroom Strategy Lessons (CL)
with Articles (A) by Standard</th></tr>
<tr><td colspan="3"><u>Big Idea / Supporting Idea 11 SC.6.P.11: Energy Transfer and Transformations</u>
A. Waves involve a transfer of energy without a transfer of matter.
B. Water and sound waves transfer energy through a material.
C. Light waves can travel through a vacuum and through matter
D. The Law of Conservation of Energy: Energy is conserved as it transfers from one object to another and from one form to another.
SC.6.P.11.1 Explore the Law of Conservation of Energy by differentiating between potential and kinetic energy. Identify situations where kinetic energy is transformed into potential energy and vice versa.</td></tr>
<tr><td>• Light Sound Action
• Newton's Laws
• Space Rocks</td><td>• A Titanic Collision: The Science behind the Sunken Ship (A)
• Hot Stuff: Heat on the Move (A)
• Matter Matters! (A)
• Splash (A)</td><td>• Determining Importance (CL-3, A-2 Crystals)
• Determining Importance (CL-3, A-1 An Anchor in the Storm)</td></tr>
<tr><td colspan="3"><u>Big Idea / Supporting Idea 12 SC.6.P.12: Motion of Objects</u>
A. Motion is a key characteristic of all matter that can be observed, described, and measured.
B. The motion of objects can be changed by forces.
SC.6.P.12.1 Measure and graph distance versus time for an object moving at a constant speed. Interpret this relationship.</td></tr>
<tr><td>• Earth in Motion
• Inner and Outer Planets
• Light Sound Action
• Newton's Laws
• Space Rocks
• Sports Physics</td><td>• A Titanic Collision: The Science behind the Sunken Ship (A)
• Matter Matters! (A)
• Splash (A)
• Surface & Eclipses of the Moon (A)
• Safe from Tsunamis (V)
• Twist and Shout: Tornado Trouble (V)</td><td>• Determining Importance (CL-3, A-1 An Anchor in the Storm)</td></tr>
<tr><td colspan="3"><u>Big Idea/Supporting Idea SC6.P13 Forces and Changes in Motion</u>
SC.6.P13.1A. It takes energy to change the motion of objects.
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.
SC.6.P.13.2: Explore the Law of Gravity by recognizing that every object exerts gravitational force on every other object and that the force depends on how much mass the objects have and how far apart they are.
SC.6.P.13.3 A. Investigate and describe that an unbalanced force acting on an object changes its speed, or direction of motion, or both.
B. Energy change is understood in terms of forces--pushes or pulls.
C. Some forces act through physical contact, while others act at a distance.
Clarification for grades 6-8: The target understanding for students in grades 6-8 should begin to transition the focus to a more specific definition of forces and changes in motion. Net forces create a change in motion. A change in momentum occurs when a net force is applied to an object over a time interval.</td></tr>
<tr><td>• Earth in Motion
• Inner and Outer Planets
• Light Sound Action
• Newton's Laws
• Space Rocks
• Sports Physics</td><td>• A Titanic Collision: The Science behind the Sunken Ship (A)
• Matter Matters! (A)
• Splash (A)
• Safe from Tsunamis (V)</td><td>• Context Clues (CL-3 A-1 Things That Go Boom!)
• Determining Importance (CL-3, A-1 An Anchor in the Storm)</td></tr>
</table>

Readorium Alignment with Next Generation Sunshine State Standards: Grade 6		
SC.6.L - Life Science - Grade 6		
Readorium Books By Standard	**Magazine Articles (A) and Science Videos (V) By Standard**	**Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard**
Big Idea/Supporting Idea 14 SC.6L.14: Organization and Development of Living Organisms A. All living things share certain characteristics. B. The scientific theory of cells, also called cell theory, is a fundamental organizing principle of life on Earth. C. Life can be organized in a functional and structural hierarchy. D. Life is maintained by various physiological functions essential for growth, reproduction, and homeostasis. SC.6.L.14.1 Describe and identify patterns in the hierarchical organization of organisms from atoms to molecules and cells to tissues to organs to organ systems to organisms. SC.6.L.14.2 Investigate and explain the components of the scientific theory of cells (cell theory): all organisms are composed of cells (single-celled or multi-cellular), all cells come from pre-existing cells, and cells are the basic unit of life. SC.6.L.14.3 Recognize and explore how cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing. SC.6.L.14.4 Compare and contrast the structure and function of major organelles of plant and animal cells, including cell wall, cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria, and vacuoles. 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. SC.6.L.14.6 Compare and contrast types of infectious agents that may infect the human body, including viruses, bacteria, fungi, and parasites..		
• Genetics: Why We Look the Way We Do • Life in the Tundra • Microscopes: Seeing the Tiny World • Nature's Weird Surprises • Our Bodies: The Most Marvelous Machines • Surviving in Nature	• Cancer: Cells Out of Control (A) • Cells and Smells (A) • I'm Squished: A Battle Between Cell Parts (A) • Life Inside Deep Caves (A) • Life Near Undersea Vents (A) • Strange Medical Conditions (A) • Survival Of The Fittest (A) • The Brain!...What's in There? (A) • The Tiniest Killers (A) • The Tiny World of Cells (A) • The Ins and Outs of the Brain (V)	• Print Features (CL-1, A-1 Symbiosis: Living Together and Loving It) • Print Features (CL-2, A-2 Plants that Trick Animals!)
Big Idea/Supporting Idea 15 SC.6L.15: Diversity and Evolution of Living Organisms A. The scientific theory of evolution is the organizing principle of life science. B. The scientific theory of evolution is supported by multiple forms of evidence. C. Natural Selection is a primary mechanism leading to change over time in organisms. SC.6.L.15.1 Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.		
• Caves • Coral Reefs • Desert Biomes • Life in the Tundra • Nature's Weird Surprises • Prairie Ecosystems • Rainforests • Surviving in Nature	• Life Near Undersea Vents (A) • Parasites: Nature's Thieves (A) • Survival Of The Fittest (A) • The Tiniest Killers (A) • The Tiny World of Cells (A) • Weird Animal Defense Mechanisms (A) • Bird Brains (V) • Extreme Bacteria (V) • Fascinating Flights (V) • Insects and Team Work (V) • Nanoparticles: Tiny Glowing Cancer Killers (V)	• Context Clues (CL-1, A-1 Life Inside Deep Caves) • Determining Importance (CL-2, A-1 Dragonflies: Flying Aces) • Determining Importance (CL-3, A-1 An Anchor in the Storm) • Making Connections & Synthesizing (CL-3, A-1 The Lynx and the Hare: Predator-Prey) • Making Connections/ Synthesizing (CL-3, A-2 Limits of Human Bodies) • Print Features (CL-1, A-1 Symbiosis: Living Together and Loving It) • Print Features (CL-2, A-2 Plants that Trick Animals)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 6		
SC.6.E: Earth and Space Science - Grade 6		
Readorium Books By Standard	**Magazine Articles (A) and Science Videos (V) By Standard**	**Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard**
Big Idea/Supporting Idea SC.6.E.6: Earth Structures A. Over geologic time, internal and external sources of energy have continuously altered the features of Earth by means of both constructive and destructive forces. B. All life, including human civilization, is dependent on Earth's internal and external energy and material resources. SC.6.E.6.1 Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion, and deposition. SC.6.E.6.2 Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.		
• Big Delicious Earth • Continental Drift • Formation of Mountains and Deserts • Natural Disasters • On the Move: Plate Tectonics • Pollution • Sea Floor Spreading • Shaking Up Our World: Earthquakes and Seismic Waves • Volcanic Expeditions	• A River of Ice (A) • Artificial Reefs: How and Why We Build Them (A) • Chilling Facts-Hot Issue Part 1 (A) • Chilling Facts-Hot Issue Part 2 (A) • It's Too Hot (A) • Let's Save Our Planet!(A) • Our Own Star, the Sun (A) • Rocks Rock! (A) • The Challenge of Gravity (A) • Where Did the Planets Come From? (A) • Icy Evidence in the Core (V) • Science on Ice (V) • Sparkling Sunspots (V)	• Monitor for Meaning CL-3 A-1 Sharing the Sun) • Determining Importance (CL-1, A-1, A Place with Many Levels) • Print Features (CL-3 A-2 Flying Into a Hurricane)
Big Idea /Supporting Idea SC.6.E.7: Earth Systems and Patterns The scientific theory of the evolution of Earth states that changes in our planet are driven by the flow of energy and the cycling of matter through dynamic interactions among the atmosphere, hydrosphere, cryosphere, geosphere, and biosphere, and the resources used to sustain human civilization on Earth. SC.7.E.7.1 Describe the layers of the solid Earth, including the lithosphere, the hot convecting mantle, and the dense metallic liquid and solid cores. SC.7.E.6.2: Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and climate. SC.6.E.7.3 Describe how global patterns such as the jet stream and ocean currents influence local weather in measurable terms such as temperature, air pressure, wind direction and speed, and humidity and precipitation. SC.6.E.7.4 Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.		
• Big Delicious Earth • Continental Drift • Formation of Mountains and Deserts • Natural Disasters • On the Move: Plate Tectonics • Pollution • Sea Floor Spreading • Shaking Up Our World: Earthquakes and Seismic Waves • Total Lunacy • Volcanic Expeditions • Weather	• A River of Ice (A) • Aurora Borealis: The Glowing Lights (A) • Chilling Facts-Hot Issue Part 1 (A) • Chilling Facts-Hot Issue Parts 1 and 2 (A) • Garbage Island (A) • Invasive Species (A) • It's Too Hot (A) • Our Own Star, the Sun (A) • Rocks Rock! (A) • The Challenge of Gravity (A) • The Future of the Sun (A)	• Monitor for Meaning CL-3 A-1 • Sharing the Sun) • Determining Importance (CL-1, A-1, A Place with Many Levels) • Print Features (CL-3 A-2 Flying Into a Hurricane)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 6		
SC.6.N: Nature of Science - Grade 6		
Readorium Books By Standard	**Magazine Articles (A) and Science Videos (V) By Standard**	**Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard**
Big Idea/Supporting Idea SC.6.N1: The Practice of Science A: Scientific inquiry is a multifaceted activity; The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation. B: The processes of science frequently do not correspond to the traditional portrayal of "the scientific method." C: Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge. D: Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations. SC.6.N.1.1 Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. SC.6.N.1.2 Explain why scientific investigations should be replicable. SC.6.N.1.3 Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each. SC.6.N.1.4 Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Space Race • Superstition or Science? • The Scientific Method	• A Computer's Best Friend (A) • An Amazing Teen Scientist (A) • Biotechnology (A) • Bones Tell a Story (A) • Cloning: The More the Merrier (A) • Crazy Careers in Science (A) • Crime Scene Science (A) • Do Scientists Cheat?(A) • Girls in Biology (A) • Girls in Chemistry (A) • Girls in Computer Science (A) • Girls in Physics (A) • Lab Safety, or Even Mad Scientists Need to Be Careful (A) • The Rhymes and Riddles of Science (A) • What Does it Mean to be a Girl in Science? (A) • Nanoparticles: Tiny Glowing Cancer Killers (V) • Robots of Your Dreams (V) • Robots with Whiskers (V) • Sensible Sensors (V) • Tongue Driven (V) • Virtual Wildfires (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-2, A-2 Video Games) • Inferring (CL-3 A-1 Meet a Scientist)

Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 7

Readorium Content: In Readorium, students choose science books that interest them or teachers may lock or unlock specific books for classes, groups, or individuals. All students can understand the same rich content because the readability levels of the chapters and the supports students receive automatically adjust to their individual needs as they read. Once students receive tokens for completing books, they may select magazine articles or National Science Foundation videos. They may also participate in game-like activities based on the concepts and vocabulary they just learned. Teachers can log into the **Teacher Resource Center** to view student data and download resources and lessons based on this data. The following chart shows the content available for students by NGSS standard. Some content applies to more than one standard.

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<tr><th colspan="3">SC.7.P: Physical Science – Grade 7</th></tr>
<tr><th>Readorium Books
By Standard</th><th>Magazine Articles (A) and Science Videos (V) By Standard</th><th>Teacher Resource Center
Classroom Strategy Lessons (CL)
with Articles (A) by Standard</th></tr>
<tr><td colspan="3"><u>Big Idea/ Supporting Idea SC.7.P.10: Forms of Energy</u>
A. Energy is involved in all physical processes and is a unifying concept in many areas of science.
B. Energy exists in many forms and has the ability to do work or cause a change.
SC.7.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.
SC.7.P.10.2 Observe and explain that light can be reflected, refracted, and/or absorbed
SC.7.P.10.3Recognize that light waves, sound waves, and other waves move at different speeds in different materials.</td></tr>
<tr><td>• Earth in Motion
• Fizz, Pop, Boom and Beyond: Understanding Chemistry 1
• Fizz, Pop, Boom and Beyond: Understanding Chemistry 2
• Inner and Outer Planets
• Light Sound Action
• Newton's Laws
• Space Rocks
• Sports Physics
• Rainforests
• Surviving in Nature</td><td>• Hot Stuff: Heat on the Move (A)
• Kitchen Chemistry (A)
• Matter Matters! (A)
• Splash (A)
• The Water Cycle (A)
• Wonder Fabrics-Things that Can't Get Wet (A)
• From Waste to Energy: Bacteria Gives a Boost (V)
• Getting Ready for Earthquakes (V)
• Hydrogen Power (V)
• Safe from Tsunamis (V)
• Twist and Shout: Tornado Trouble (V)</td><td>• Creating Sensory Images (CL-1, A-2 Kitchen Chemistry)
• Determining Importance (CL-3, A-2 Crystals)
• Context Clues (CL-3 A-1 Things That Go Boom!)
• Determining Importance (CL-3, A-1 An Anchor in the Storm)</td></tr>
<tr><td colspan="3"><u>Big Idea/ Supporting Idea SC.7.P.11: Energy Transfer and Transformations</u>
A. Waves involve a transfer of energy without a transfer of matter.
B. Water and sound waves transfer energy through a material.
C. Light waves can travel through a vacuum and through matter.
D. The Law of Conservation of Energy: Energy is conserved as it transfers from one object to another and from one form to another.</td></tr>
<tr><td>• Earth in Motion
• Fizz, Pop, Boom and Beyond: Chemistry 1
• Fizz, Pop, Boom and Beyond: Chemistry 2
• Inner and Outer Planets
• Light Sound Action
• Newton's Laws
• Space Rocks
• Sports Physics
• Rainforests
• Surviving in Nature</td><td>• Hot Stuff: Heat on the Move (A)
• Inventor of the Toughest Stuff (A)
• Matter Matters! (A)
• Splash (A)
• The Water Cycle (A)
• Hurricane Hunting (V)
• Twist and Shout: Tornado Trouble (V)
• Wave of the Future- Green Gasoline (V)</td><td>• Creating Sensory Images (CL-1, A-2 Kitchen Chemistry)
• Determining Importance (CL-3, A-2 Crystals)
• Determining Importance (CL-3, A-1 An Anchor in the Storm)</td></tr>
</table>

Readorium Alignment with Next Generation Sunshine State Standards: Grade 7		
SC.7.L: Life Science - Grade 7		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big Idea /Supporting Idea 15 SC.7.L.15: Diversity and Evolution of Living Organisms A. The scientific theory of evolution is the organizing principle of life science. B. The scientific theory of evolution is supported by multiple forms of evidence. C. Natural Selection is a primary mechanism leading to change over time in organisms. SC.7,L.15.1 Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species. SC.7.L.15.2 Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms. SC.7.L.15.3 Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.		
• Becoming and Staying Healthy • Coral Reefs • Desert Biomes • Genetics: Why We Look the Way We Do • Life in the Tundra • Mitosis and Meiosis • Nature's Weird Surprises • Our Bodies: The Most Marvelous Machines • Prairie Ecosystems • Rainforests • Surviving in Nature	• A Spider with Deadly Aim (A) • 25 Fascinating Facts About Humans (A) • Animal Cannibals (A) • Bee Bee-havior (A) • Beneath the Fin (A) • Bones Tell the Story (A) • Cancer: Cells Out of Control (A) • Cells and Smells (A) • Cicada Swarm (A) • Deadly Mushrooms (A) • Blinking to Thinking: Amazing Brain (A) • How Plants Trick Animals (A) • How Spiders Catch Prey (A) • Life Inside Deep Caves (A) • Parasites: Nature's Thieves (A) • Pirate Spiders (A) • Survival Of The Fittest (A) • The Brain!...What's in There? (A) • The Evolution of Peppered Moths (A) • The Surprising Intelligence of Birds (A) • Symbiotic Friends: Goby and Shrimp(A) • The Tiniest Killers (A) • The Tiny World of Cells (A) • The Warrior Gene (A) • Weird Animal Defense Mechanisms (A) • Ant Activists (V) • Bird Brains (V)	• Context Clues (CL-1, A-1 Life Inside Deep Caves) • Context Clues CL-2, A-1 Life at the Top) • Context Clues CL-3 A-2, What Happens When Something Goes Extinct) • Creating Sensory Images (CL-1, A-1 The Rainforest Awakens My Senses) • Determining Importance (CL-2, A-1 Dragonflies: Flying Aces) • Graphic Features (CL-1, A-1 What is Happening to the Bluefin Tuna?) • Graphic Features (CL-1, A-2 What Happened to the Blue Whale?) • Making Connections & Synthesizing (CL-3, A-1 The Lynx and the Hare: Predator-Prey Relationships) • Print Features (CL-1, A-1 Symbiosis: Living Together and Loving It) • Print Features (CL-2, A-2 Plants that Trick Animals!) • Print Features CL-3 A-1 Home Sweet Home: Dens and Other Shelters)
Big Idea / Supporting Idea 16 SC.7.L.16: Heredity and Reproduction A. Reproduction is characteristic of living things and is essential for the survival of species. B. Genetic information is passed from generation to generation by DNA; DNA controls the traits of an organism. C. Changes in the DNA of an organism can cause changes in traits, and manipulation of DNA in organisms has led to genetically modified organisms. SC.7.L.16.1 Understand and explain that every organism requires a set of instructions that specifies its traits that this hereditary information (DNA) contains genes located in the chromosomes of each cell, and that heredity is the passage of these instructions from one generation to another. SC.7.L.16.2 Determine the probabilities for genotype and phenotype combinations using Punnett Squares and pedigrees. SC.7.L.16.3 Compare and contrast the general processes of sexual reproduction requiring meiosis and asexual reproduction requiring mitosis. SC.7.L.16.4 Recognize and explore the impact of biotechnology (cloning, genetic engineering, artificial selection) on the individual, society and the environment.		
• Genetics: Why We Look the Way We Do • Mitosis and Meiosis	• Cancer: Cells Out of Control (A) • Cells and Smells (A) • Getting DNA Out of Ancient Fossils (A) • The Evolution of Peppered Moths (A) • The Tiniest Killers (A) • The Tiny World of Cells (A) • The Warrior Gene (A) • Twin Fascination (A) • Antlers, Beaks, Geckos and Us (V) • Extreme Bacteria (V)	Print Features (CL-1, A-1 Symbiosis: Living Together and Loving It)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 7		
SC.7.E: Earth and Space Science - Grade 7		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big Idea/Supporting Idea SC.7.E.6 : Earth Structures: Over geologic time, internal and external sources of energy have continuously altered the features of Earth by means of both constructive and destructive forces. All life, including human civilization, is dependent on Earth's internal and external energy and material resources. SC.7.E.6.1 Describe the layers of the solid Earth, including the lithosphere, the hot convecting mantle, and the dense metallic liquid and solid cores. SC.7.E.6.2 Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and sub-surface events (plate tectonics and mountain building). SC.7.E.6.3 Identify current methods for measuring the age of Earth and its parts, including the law of superposition and radioactive dating. SC.7.E.6.4 Explain and give examples of how physical evidence supports scientific theories that Earth has evolved over geologic time due to natural processes. 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. SC.7.E.6.6 Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water. SC.7.E.6.7 Recognize that heat flow and movement of material within Earth causes earthquakes and volcanic eruptions, and creates mountains and ocean basins.		
• Big Delicious Earth • Continental Drift • Formation of Mountains and Deserts • Natural Disasters • On the Move: Plate Tectonics • Pollution • Sea Floor Spreading • Shaking Up Our World: Earthquakes and Seismic Waves	• A River of Ice (A) • Rocks Rock! (A) • Flowing Free (V) • Icy Evidence in the Core (V) • Science on Ice (V)	• Monitor for Meaning CL-3 A-1 Sharing the Sun) • Print Features (CL-3 A-2 Flying Into a Hurricane)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 7		
SC.6.7: Nature of Science - Grade 7		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big idea/Supporting Idea SC.7.N.1: The Practice of Science A: Scientific inquiry is a multifaceted activity; The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation. B: The processes of science frequently do not correspond to the traditional portrayal of "the scientific method." C: Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge. D: Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations. SC.7.N.1.1 Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. SC.7. N.1.2 Differentiate replication (by others) from repetition (multiple trials). SC.7.N.1.3 Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Space Race: The Battle to Explore the Moon and Beyond! • Superstition or Science? • The Scientific Method	• Biotechnology (A) • Lab Safety, or Even Mad Scientists Need to Be Careful (A) • The Rhymes and Riddles of Science (A) • What it Means to be a Girl in Science (A) • Girl Powered Science (V) • Locked-in Syndrome: Finding a Way Out (V) • Tongue Driven (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-3 A-1 Meet a Scientist)
Big Idea / Supporting Idea 2SC.7.N.2: The Characteristics of Scientific Knowledge A: Scientific knowledge is based on empirical evidence, and is appropriate for understanding the natural world, but it provides only a limited understanding of the supernatural, aesthetic, or other ways of knowing, such as art, philosophy, or religion. B: Scientific knowledge is durable and robust, but open to change. C: Because science is based on empirical evidence it strives for objectivity, but as it is a human endeavor the processes, methods, and knowledge of science include subjectivity, as well as creativity and discovery.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Superstition or Science? • The Scientific Method	• Biotechnology (A) • Bones Tell a Story (A) • Getting DNA Out of Ancient Fossils (A) • The Rhymes and Riddles of Science (A) • What it Means to be a Girl in Science? (A) • Nanoparticles: Glowing Cancer Killers (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-2, A-2 Video Games) • Inferring (CL-3 A-1 Meet a Scientist)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 7		
SC.7.N: Nature of Science - Grade 7 Continued		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big Idea/Supporting Idea SC.7.N.3:The Role of Theories, Laws, Hypotheses, and Models The terms that describe examples of scientific knowledge, for example; "theory," "law," "hypothesis," and "model" have very specific meanings and functions within science. SC.7.N.3.1 Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them. SC.7.N.3.2 Identify the benefits and limitations of the use of scientific models.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Space Race: the Battle to Explore the Moon and Beyond • Superstition or Science? • The Scientific Method	• An Amazing Teen Scientist (A) • Biotechnology (A) • Bones Tell a Story (A) • Crazy Careers in Science (A) • Lab Safety, or Even Mad Scientists Need to Be Careful (A) • The Rhymes and Riddles of Science (A) • Nanoparticles: Tiny Glowing Cancer Killers (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-2, A-2 Video Games) • Inferring (CL-3 A-1 Meet a Scientist)

Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 8

Readorium Content: In Readorium, students choose science books that interest them or teachers may lock or unlock specific books for classes, groups, or individuals. All students can understand the same rich content because the readability levels of the chapters and the supports students receive automatically adjust to their individual needs as they read. Once students receive tokens for completing books, they may select magazine articles or National Science Foundation videos. They may also participate in game-like activities based on the concepts and vocabulary they just learned. Teachers can log into the **Teacher Resource Center** to view student data and download resources and lessons based on this data. The following chart shows the content available for students by NGSS standard. Some content applies to more than one standard.

Readorium Alignment with Next Generation Sunshine State Standards: Grade 8		
SC.8.P: Physical Science – Grade 8		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big Idea/Supporting Idea SC.8.P.8: Properties of Matter A. All objects and substances in the world are made of matter. Matter has two fundamental properties: matter takes up space and matter has mass which gives it inertia. SC.8.P.8.1 Explore the scientific theory of atoms (also known as atomic theory) by using models to explain the motion of particles in solids, liquids, and gases. B. Objects and substances can be classified by their physical and chemical properties. Mass is the amount of matter (or "stuff") in an object. Weight, on the other hand, is the measure of force of attraction (gravitational force) between an object and Earth. SC.8.P.8.2 Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional to, mass. SC.8.P.8.3Explore and describe the densities of various materials through measurement of their masses and volumes. SC.8.P.8.4 Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured; for example, density, thermal or electrical conductivity, solubility, magnetic properties, melting and boiling points, and know that these properties are independent of the amount of the sample.		
• Light Sound Action • Newton's Laws • Surviving in Nature	• A Titanic Collision: The Science behind the Sunken Ship (A) • Matter Matters! (A) • Splash (A) • The Cool World of Chemistry (A) • The Water Cycle (A) • Hydrogen Power (V) • Twist and Shout: Tornado Trouble (V) • Wave of the Future- Green Gas (V)	• Creating Sensory Images (CL-1, A-2 Kitchen Chemistry) • Determining Importance (CL-3, A-2 Crystals) • Context Clues (CL-3 A-1 Things That Go Boom!) • Determining Importance (CL-3, A-1 An Anchor in the Storm)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 8		
SC.8.L: Life Science - Grade 8		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big Idea / Supporting Idea 18 SC.8.L.18: Matter and Energy Transformations SC.8.L.18.1 Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen. SC.8.L.18.2 Describe and investigate how cellular respiration breaks down food to provide energy and releases carbon dioxide. SC.8.L.18.3 Construct a scientific model of the carbon cycle to show how matter and energy are continuously transferred within and between organisms and their physical environment. SC.8.L.18.4 Cite evidence that living systems follow the Laws of Conservation of Mass and Energy.		
• Desert Biomes • Genetics: Why We Look the Way We Do • Our Bodies: The Most Marvelous Machines • Surviving in Nature	• Cells and Smells (A) • Getting DNA Out of Ancient Fossils (A) • I'm Squished: A Battle Between Cell Parts (A) • The Tiniest Killers (A) • The Tiny World of Cells (A) • Extreme Bacteria (V) • Nanoparticles: Tiny Glowing Cancer Killers (V) • Picking Your Brain (V) • The Creative Brain (V) • The Ins and Outs of the Brain (V) • What Makes Us Tick (V)	• Creating Sensory Images (CL-1, A-1 The Rainforest Awakens My Senses) • Creating Sensory Images (CL-3 A-2, An Afternoon Rain) • Determining Importance (CL-2, A-2 Garbage Island) • Print Features (CL-1, A-1 Symbiosis: Living Together and Loving It)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 8		
SC.8.E: Earth and Space Science - Grade 8		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
Big idea/Supporting Idea SC.8.E.5: Earth in Space and Time The origin and eventual fate of the Universe still remains one of the greatest questions in science. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the planetary systems, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of the nature of the Universe.		
• Artificial Satellites • Big Delicious Earth • Continental Drift • Earthquakes • Formation of Mountains and Deserts • Natural Disasters • Lives of Stars • On the Move: Plate Tectonics • Sea Floor Spreading	• Aurora Borealis: The Glowing Lights (A) • Catching a Comet (A) • Our Galactic Neighborhood (A) • Our Own Star, the Sun (A) • Space Junk: Are We Trashing our Solar System? (A) • Spirit and Opportunity on Mars: The Little Robots that Could (A) • Strange Stars (A) • The Challenge of Gravity (A) • The Deep Mystery of Black Holes (A) • The Future of the Sun (A) • The Search for Life on Mars (A) • Treasures in the Sky (A) • Voyager Space Probes (A) • Where Did the Planets Come From? (A) • Gaps in the Galaxies (V) • Sparkling Sunspots (V)	• Context Clues (CL-2, A-2, The Search for Life on Mars) • Monitor for Meaning CL-3 A-1 Sharing the Sun)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 8		
SC.8: Nature of Science - Grade 8		
Readorium Books By Standard	Magazine Articles (A) and Science Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
2 SC.8.N.2: Big Idea / Supporting Idea The Characteristics of Scientific Knowledge A: Scientific knowledge is based on empirical evidence, and is appropriate for understanding the natural world, but it provides only a limited understanding of the supernatural, aesthetic, or other ways of knowing, such as art, philosophy, or religion. B: Scientific knowledge is durable and robust, but open to change. C: Because science is based on empirical evidence it strives for objectivity, but as it is a human endeavor the processes, methods, and knowledge of science include subjectivity, as well as creativity and discovery. **SC.8.N.3 Big Idea/Supporting Idea The Role of Theories, Laws, Hypotheses, and Models** The terms that describe examples of scientific knowledge, for example; "theory," "law," "hypothesis," and "model" have very specific meanings and functions within science. **SC.7.N.3.1** Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them. **SC.7.N.3.2** Identify the benefits and limitations of the use of scientific models.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Superstition or Science? • The Scientific Method	• Biotechnology (A) • Lab Safety, or Even Mad Scientists Need to Be Careful (A) • The Rhymes and Riddles of Science (A) • Nanoparticles: Tiny Glowing Cancer Killers (V) • Sensible Sensors (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-2, A-2 Video Games) • Inferring (CL-3 A-1 Meet a Scientist)
SC.8.N.4 Big Idea/Supporting Idea: Science and Society As tomorrow's citizens, students should be able to identify issues about which society could provide input, formulate scientifically investigable questions about those issues, construct investigations of their questions, collect and evaluate data from their investigations, and develop scientific recommendations based upon their findings.		
• Character Traits of Good Scientists • Life on a Research Ship • Microscopes: Seeing the Tiny World • Scientists Who Changed the World • Space Race: The Battle to Explore the Moon and Beyond • Superstition or Science? • The Scientific Method	• Crime Scene Science (A) • Selective Breeding, Genetic Engineering, and Pedigrees (A) • An Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams! (A) • Crazy Careers in Science (A) • Nanoparticles: Tiny Glowing Cancer Killers (V) • X-Ray Vision: Beyond the Bones (V)	• Inferring (CL-2, A-2 Video Games) • Inferring (CL-3 A-1 Meet a Scientist)