Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 3

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 3		
SC.3.P: Physical Science		
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**
SC.3.P.10: Big Idea 10: Forms of Energy 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.3.P.10.1: Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical. SC.3.P.10.2: Recognize that energy has the ability to cause motion or create change. SC.3.P.10.3: Demonstrate that light travels in a straight line until it strikes an object or travels from one medium to another. SC.3.P.10.4: Demonstrate that light can be reflected, refracted, and absorbed.		
• Amusement Park Physics • Making Movie Magic • Olympic Champs: It's Not Just Luck – It's Physics! • Unbalanced Forces	• Cool Beams (A) • Look a Rainbow! Where Did that Come From? (A) • Matter Matters (A)	• Graphic Features (CL-2, A-1 War Machines-Siege Engines) • Main Idea and Details (CL-2, A-1, The History of Flight) • Inferring (CL-1, A-3 Why Is the Sky Blue?)
SC.3.P.11: Big Idea 11: Energy Transfer and Transformations 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. SC.3.P.11.1: Investigate, observe, and explain that things that give off light often also give off heat. SC.3.P.11.2: Investigate, observe, and explain that heat is produced when one object rubs against another, such as rubbing one's hands together.		
• Amusement Park Physics • Good Vibes – Making Waves with Sound • The Science of Music	• Cool Beams (A) • Look a Rainbow! Where Did that Come From? (A) • Matter Matters (A)	• Inferring (CL-1, A-3 Why Is the Sky Blue?)
SC.3.P.8: Big Idea 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. 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.3.P.8.1: Measure and compare temperatures of various samples of solids and liquids. SC.3.P.8.2: Measure and compare the mass and volume of solids and liquids. SC.3.P.8.3: Compare materials and objects according to properties such as size, shape, color, texture, and hardness.		
• Unbalanced Forces • Food Chemistry	• Matter Matters (A)	• Inferring (CL-1, A-3 Why Is the Sky Blue?)
SC.3.P.9: Big Idea 9: Changes in Matter A. Matter can undergo a variety of changes. B. Matter can be changed physically or chemically. SC.3.P.9.1: Describe the changes water undergoes when it changes state through heating and cooling by using familiar scientific terms such as melting, freezing, boiling, evaporation, and condensation		
• Food Chemistry	• The Water Cycle (A)	

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3		
SC.3.L: Life Science		
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**
SC.3.L.14: Big Idea 14: Organization and Development of Living Organisms A. All plants and animals, including humans, are alike in some ways and different in others. B. All plants and animals, including humans, have internal parts and external structures that keep them alive and help them grow and reproduce. C. Humans can better understand the natural world through careful observation. SC.3.L.14.1: Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction. SC.3.L.14.2: Investigate and describe how plants respond to stimuli (heat, light, gravity), such as the way plant stems grow toward light and their roots grow downward in response to gravity		
• Beetlemania • Birds of a Feather • Buzzing About Bees and Wasps • Dependency of Life • Exploring Ecosystems • The Weird and Wonderful World of Plants	• How Plants Survive (Parts 1 and 2) (A) • The Tiny World of Cells (A) • Antlers, Shells, and Beaks (V) • Babies and Learning (V) • Bird Brains (V) • Emperor Penguins (V) • How Do We Think?(V) • Leaf Cutter Ants (V) • Song: Science Pirates: Bacteria (V)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Main Idea/Details (CL-3, A-3 Why Do Geese Fly in a V-Shape?) • Questioning (CL-1, A-1 White-Throated Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites: Nature's Thieves) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is a Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)
SC.3.L.15: Big Idea 15: Diversity and Evolution of Living Organisms A. Earth is home to a great diversity of living things, but changes in the environment can affect their survival. B. Individuals of the same kind often differ in characteristics and sometimes the differences give individuals advantage in surviving and reproducing. SC.3.L.15.1: Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors. SC.3.L.15.2: Classify flowering and non-flowering plants into major groups such as those that produce seeds, or those like ferns and mosses that produce spores, according to their physical characteristics.		
• Beetlemania • Birds of a Feather • Buzzing About Bees & Wasps • Deadliest Creatures • Deep Sea Creatures • Dependency of Life • Exploring Ecosystems • Invasive Species • Life and Death in the Wild • Our Gross World • Secret Languages of Animals • Smarter than You Think - Animals that Amaze • Spider Stories • Weird and Wonderful Plants	• Bee-Bee Behavior (A) • Cicadas (A) • Dandelions (A) • Dinosaurs - Carnivores (A) • Dinosaurs - Herbivores (A) • Emperor Penguins • How Plants Survive (Pts 1 and 2) (A) • Interesting Animal Relationships (A) • Leaf Cutter Ants • Shrimp and Fish Couple (A) • Venus Flytrap: Meat-Eating Plant(A) • Antarctic Krill (V) • Batty for Bats (V) • Beluga Whales (V) • How Do We Think?(V) • Sea Turtles (V) • Social Insects (V)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Questioning (CL-1, A-1 Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) Word Learning (CL-2, A-3 Webbed Wonders)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3		
SC.3.L: Life Science 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**
SC.3.L.17: Big Idea 17: Interdependence A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs. B. Both human activities and natural events can have major impacts on the environment. C. Energy flows from the sun through producers to consumers. SC.3.L.17.1: Describe how animals and plants respond to changing seasons. C.3.L.17.2: Recognize that plants use energy from the Sun, air, and water to make their own food.		
• Beetlemania • Birds of a Feather • Buzzing About Bees & Wasps • Deadliest Creatures • Deep Sea Creatures • Dependency of Life • Exploring Ecosystems • Invasive Species • Life and Death in the Wild • Our Gross World • Polluting our Earth • Secret Languages of Animals • Smarter than You Think - Animals that Amaze • Spider Stories • Weather Around the World • Weird and Wonderful Plants	• Bee-Bee Behavior (A) • Cicadas (A) • Dandelions (A) • Dinosaurs - Carnivores (A) • Dinosaurs - Herbivores (A) • Fireflies of the Ocean (A) • How Plants Survive (Pts 1 and 2) (A) • Antlers, Shells, and Beaks (V) • Interesting Animal Relationships (A) • Leaf Cutter Ants (V) • Orangutan Copycats (V) • Polar Bears • Shrimp and Fish Couple (A) • Venus Flytrap A Meat-Eating Plant (A)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Main Idea/Details (CL-3, A-3 Why Do Geese Fly in a V-Shape?) • Questioning (CL-1, A-1 Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3		
SC.3.E: Earth and Space Science		
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**
5 SC.3.E.5: Big Idea 5: Earth in Space and Time Humans continue to explore Earth's place in space. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the Solar System, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of our Solar System. SC.3.E.5.1: Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light SC.3.E.5.2: Identify the Sun as a star that emits energy; some of it in the form of light. SC.3.E.5.3: Recognize that the Sun appears large and bright because it is the closest star to Earth. SC.3.E.5.4: Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome. SC.3.E.5.5: Investigate that the number of stars that can be seen through telescopes is dramatically greater than those seen by the unaided eye.		
• Living in Space • Our Planet Earth • Deep Space	• A Trip to Mars (A) • Aurora Borealis (A) • Catching a Comet (A) • Future of the Sun (A) • Our Galactic Neighborhood (A) • Our Own Star (A) • Strange Stars (A) • Treasures in the Sky (A) • Voyager Space Probes (A) • Where did the Planets Come From? (A) • Black Holes (V)	• Text Organization (CL-1, A-1, Satellites) • Text Organization (CL-1, A-2 Satellites in Outer Space) • Text Organization (CL-1, A-3 How Satellites Work)
SC.3.E.6: Big Idea 6: Earth Structures Humans continue to explore the composition and structure of the surface of Earth. 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 water and natural resources. SC.3.E.6.1: Demonstrate that radiant energy from the Sun can heat objects and when the Sun is not present, heat may be lost.		
• Changing Face of Earth • Earth's Systems • Natural Hazards • Our Planet Earth • Weather Around the World	• Glaciers (A) • The Water Cycle (A) • Too Much Water (A) • Hawaii Volcanoes (V) • Core on the Floor(V) • Earthquakes (V)	• Author's Purpose (CL-1, A-1 Weather Scientist) • Click or Clunk (CL-1, A-1 Why Save Rainforests?) • Graphic Features (CL-1, A-2 Greenhouse Effect) • Graphic Features (CL-1, A-3 Climate Changing)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3		
SC.5.N: Nature of Science		
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**
SC.3.N: Big Idea 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.3.N.1.1: Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations SC.3.N.1.2: Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups. SC.3.N.1.3: Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted. SC.3.N.1.4: Recognize the importance of communication among scientists. SC.3.N.1.5: Recognize that scientists question, discuss, and check each other's evidence and explanations. SC.3.N.1.6: Infer based on observation. SC.3.N.1.7: Explain that empirical evidence is information, such as observations or measurements that is used to help validate explanations of natural phenomena.		
• Science: What's It All About? • Science Girls • Improving lives with Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Solving Crimes with Forensics • The Computer Revolution	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Movie Stunts (A) • Transistors (A)	• Questioning (CL-2, A1 Crazy Careers in Science)
SC.3.N: Big Idea 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.3.N.3.1: Recognize that words in science can have different or more specific meanings than their use in everyday language; for example, energy, cell, heat/cold, and evidence. SC.3.N.3.2: Recognize that scientists use models to help understand and explain how things work. SC.3.N.3.3: Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations.		
• Science, What's It All About? • Powering Our Lives with Energy • Earth's Systems	• Amazing Teen Scientist (A) • Cool Beams (A) • Song: Science Pirates: Hypothesis (V) • Song: Science Pirates: Bacteria (V)	• Questioning (CL-2, A1 Crazy Careers in Science)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3-5		
Computer Science		
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**
SC.35.CS-CS.1.2: Describe how models and simulations can be used to solve real-world issues in science and engineering. SC.35.CS-CS.1.3: Answer a question, individually and collaboratively, using data from a simulation.		
• Computer Revolution • Improving Lives With Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Technology Changes Medicine • Weather Around the World	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Look a Rainbow (A) • Movie Stunts (A) • Transistors (A) • Just by a Whisker (V) • RoboBees (V) • Robotic Arms (V) • The SpelBots (V) • Virtual Reality Scientists (V)	

Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 4

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 4		
SC.4.P: Physical Science		
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**
SC.3.P.10: Big Idea 10: Forms of Energy 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.4.P.10.1: Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion. SC.4.P.10.2: Investigate and describe that energy has the ability to cause motion or create change. SC.4.P.10.3: Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates. SC.4.P.10.4: Describe how moving water and air are sources of energy and can be used to move things.		
• Good Vibes – Making Waves with Sound • The Science of Music • Powering Lives with Energy	• Cool Beams (A) • Matter Matters (A)	• Graphic Features (CL-1, A-2 Greenhouse Effect) • Inferring (CL-1, A-3 Why Is the Sky Blue?)
SC.3.P.11: Big Idea 11: Energy Transfer and Transformations 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. SC.4.P.11.1: Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature. SC.4.P.11.2: Identify common materials that conduct heat well or poorly.		
• Good Vibes – Making Waves with Sound	• Cool Beams (A) • Look a Rainbow! Where Did that Come From?	• Graphic Features (CL-1, A-2 Greenhouse Effect)
SC.4.P.12: Big Idea 12: Motion of Objects 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 force SC.4.P.12.1: Recognize that an object in motion always changes its position and may change its direction. SC.4.P.12.2: Investigate and describe that the speed of an object is determined by the distance it travels in a unit of time and objects move at different speeds.		
• Olympic Champs: (Physics!) • Unbalanced Forces	• Matter Matters (A)	• Questioning (CL-2, A1 Crazy Careers in Science)
SC.4.P.8: Big Idea 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. 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.4.P.8.1: Measure/compare objects & materials based on t physical properties including: mass, shape, volume, color, texture, odor, taste, attraction to magnets SC.4.P.8.2: Identify properties and common uses of water in each of its states. SC.4.P.8.3: Explore the Law of Conservation of Mass by demonstrating that the mass of a whole object is always the same as the sum of the masses of its parts. SC.4.P.8.4: Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.		
• Amusement Park Physics • Food Chemistry • Unbalanced Forces	• A Sweet Treat (A) • Cool Beams (A) • Fishing for Magnets (A) • Magnetic Attraction (A) • Magnetism (A) • Magnets (A) • Matter Matters (A)	
SC.4.P.9: Big Idea 9: Changes in Matter A. Matter can undergo a variety of changes. B. Matter can be changed physically or chemically. SC.4.P.9.1: Identify familiar changes in materials that result in other materials with different characteristics, such as decaying, burning, rusting, and cooking.		
• Food Chemistry • Solving Crimes with Forensics	• Matter Matters (A) • The Water Cycle (A)	

Readorium Alignment with Next Generation Sunshine State Standards: Grade 4

SC.4.L: Life Science

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
SC.4.L.16: Big Idea 16: Heredity and Reproduction A. Offspring of plants and animals are similar to, but not exactly like, their parents or each other. B. Life cycles vary among organisms, but reproduction is a major stage in the life cycle of all organisms. SC.4.L.16.1: Identify processes of sexual reproduction in flowering plants, including pollination SC.4.L.16.2: Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment. SC.4.L.16.3: Recognize that animal behaviors may be shaped by heredity and learning. SC.4.L.16.4: Compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and non-flowering seed-bearing plants.		
• Exploring Ecosystems • Inheritance - It's All in the Genes • The Weird & Wonderful World of Plants	• Bee-Bee Behavior (A) • Beneath the Fin (A) • Cicadas (A) • Dandelions (A) • Fireflies of the Ocean (A) • How Plants Survive (Parts 1 and 2) (A) • How We Think (A) • Shrimp and Fish Couple (A) • The Tiny World of Cells (A) • Venus Flytrap: A Meat-Eating Plant (A) • Antlers, Shells, and Beaks (V) • Babies and Learning (V) • Make Way for Ducklings (V)	• Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Questioning (CL-2, A3 Parasites: Nature's Thieves) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?)
SC.4.L.17: Big Idea 17: Interdependence A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs. B. Both human activities and natural events can have major impacts on the environment. C. Energy flows from the sun through producers to consumers. SC.4.L.17.1: Compare the seasonal changes in Florida plants and animals to those in other regions of the country. SC.4.L.17.2: Explain that animals, including humans, cannot make their own food SC.4.L.17.3: Trace the flow of energy from the Sun as it is transferred along the food chain through producers to consumers SC.4.L.17.4 Recognize ways plants and animals, including humans, can impact the environment.		
• Beetlemania • Birds of a Feather • Buzzing About Bees & Wasps • Deadliest Creatures • Deep Sea Creatures • Dependency of Life • Exploring Ecosystems • Invasive Species • Life and Death in the Wild • Our Gross World • Secret Languages of Animals • Smarter than You Think - Animals that Amaze • Spider Stories • Weird and Wonderful Plants	• Bee-Bee Behavior (A) • Cicadas (A) • Dandelions (A) • Dinosaurs - Carnivores (A) • Dinosaurs - Herbivores (A) • Fireflies of the Ocean (A) • How Plants Survive (Pts 1 and 2) (A) • Antlers, Shells, and Beaks (V) • Interesting Animal Relationships (A) • Leaf Cutter Ants (V) • Orangutan Copycats (V) • Polar Bears (A) • Sea Turtles (V) • Shrimp and Fish Couple (A) • Social Insects (V) • The Tiny World of Cells (A) • Venus Flytrap A Meat-Eating Plant (A)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Tell the Temperature by Listening to a Cricket) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Main Idea/Details (CL-3, A-3 Why Do Geese Fly in a V-Shape?) • Questioning (CL-1, A-1 Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-2, A3 Parasites: Nature's Thieves) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites) • Word Learning (CL-2, A-2 What is Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 4

SC.3.4: Earth and Space Science

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
SC.4.E.5: Big Idea 5: Earth in Space and Time Humans continue to explore Earth's place in space. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the Solar System, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of our Solar System. SC.4.E.5.1: Observe that the patterns of stars in the sky stay the same although they appear to shift SC.4.E.5.2: Describe the changes in the observable shape of the moon over the course of about a month. SC.4.E.5.3: Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day. SC.4.E.5.4: Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and stars are connected. SC.4.E.5.5: Investigate and report the effects of space research and exploration on the economy and culture of Florida.		
• Living in Space • Our Planet Earth • Deep Space	• A Trip to Mars (A) • Aurora Borealis (A) • Biggest Shadow of All - An Eclipse (A) • Catching a Comet (A) • Future of the Sun (A) • Our Galactic Neighborhood (A) • Our Own Star (A) • Spirit and Opportunity on Mars (A) • Strange Stars (A) • Surface and Eclipses of the Moon (A) • Challenge of Gravity (A) • Treasures in the Sky (A) • Voyager Space Probes (A) • Black Holes (V)	• Text Organization (CL-1, A-1, Satellites) • Text Organization (CL-1, A-2 Satellites in Outer Space) • Text Organization (CL-1, A-3 How Satellites Work)
SC.4.E.6: Big Idea 6: Earth Structures Humans continue to explore the composition and structure of the surface of Earth. 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 water and natural resources. SC.4.E.6.1: Identify the three categories of rocks: igneous, (formed from molten rock); sedimentary (pieces of other rocks and fossilized organisms); & metamorphic (formed from heat and pressure). SC.4.E.6.2: Identify the physical properties of common earth-forming minerals, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in rock formation. SC.4.E.6.3: Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable. SC.4.E.6.4: Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temp change, & plants) & erosion (movement of rock by gravity, wind, water, and ice). SC.4.E.6.5: Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things. SC.4.E.6.6: Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).		
• Changing Face of Earth • Earth's Systems • Exploring the Ocean Depths • Natural Hazards • Polluting Our Earth • Weather Around the World	• Glaciers (A) • Rocks Rock (A) • The Challenge of Gravity (A) • The Water Cycle (A) • Too Much Water (A) • Hawaii Volcanoes (V) • Core on the Floor(V) • Debris Filling the Ocean(V) • Earthquakes (V) • Invasion of the Earthworms! (V) • Tsunami Research (V) • What is Sea Ice and Why is it Shrinking?(V)	• Click or Clunk (CL-1, A-1 Why Save Rainforests?) • Click or Clunk (CL-2, A-2 Garbage Island) • Graphic Features (CL-1, A-2 Greenhouse Effect) • Graphic Features (CL-1, A-3 Climate Changing) • Inferring (CL-1, A-1 What Causes Seasons?)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 4		
SC.4.N: Nature of Science		
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**
SC.4.N.1: Big Idea 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.4.N.1.1**:** Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations. SC.4.N.1.2: Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups. SC.4.N.1.3: Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence. SC.4.N.1.4: Attempt reasonable answers to scientific questions and cite evidence in support. SC.4.N.1.5: Compare the methods and results of investigations done by other classmates. SC.4.N.1.6: Keep records that describe observations made, carefully distinguishing actual SC.4.N.1.7: Recognize and explain that scientists base their explanations on evidence. SC.4.N.1.8: Recognize that science involves creativity in designing experiments.		
• The Computer Revolution • Improving lives with Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Science Girls • Science: What's It All About? • Solving Crimes with Forensics	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Movie Stunts (A) • Transistors (A)	• Questioning (CL-2, A1 Crazy Careers in Science)
SC.4.N.2: Big Idea 2: Big Idea 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. SC.4.N.2.1**:** Explain that science focuses solely on the natural world.		
• Science, What's It All About? • Science Girls • Our Planet Earth • Powering Lives with Energy	• The Surface and Eclipses of the Moon(A) • Our Galactic Neighborhood (A)	
SC.4.N.3: Big Idea 3: The Role of Theories, Laws, Hypotheses, and Models • SC.4.N.3.1**:** Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.		
• Science, What's It All About?	Song: Science Pirates: Hypothesis (V)	

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3-5		
Computer Science		
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**
SC.35.CS-CS.1.2: Describe how models and simulations can be used to solve real-world issues in science and engineering. SC.35.CS-CS.1.3: Answer a question, individually and collaboratively, using data from a simulation.		
• Computer Revolution • Improving Lives With Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Science Girls • Technology Changes Medicine • Weather Around the World	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Look a Rainbow (A) • Movie Stunts (A) • Transistors (A) • Just by a Whisker (V) • RoboBees (V) • Robotic Arms (V) • The SpelBots (V) • Virtual Reality Scientists (V)	

Readorium Alignment with Next Generation Sunshine State Science Standards: Grade 5

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.

<table>
<tr><th colspan="3">Readorium Alignment with Next Generation Sunshine State Standards: Grade 5</th></tr>
<tr><th colspan="3">SC.5.P: Physical Science</th></tr>
<tr><td colspan="3">SC.5.P.10: Big Idea 10: Forms of Energy
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.5.P.10.1: Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.
SC.5.P.10.2: Investigate and explain that energy has the ability to cause motion or create change.
SC.5.P.10.3: Investigate and explain that an electrically-charged object can attract an uncharged object and can either attract or repel another charged object without any contact between the objects.
C.5.P.10.4: Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion.</td></tr>
<tr><th>Readorium Books
By Standard</th><th>Magazine Articles (A) and
Science Alive Videos (V) By
Standard</th><th>Teacher Resource Center
Classroom Strategy Lessons (CL)
with Articles (A) by Standard</th></tr>
<tr><td>• Good Vibes – Making Waves with Sound
• Food Chemistry
• Powering Our Lives with Energy
• Unbalanced Forces</td><td>• Cool Beams (A)
• Magnetic Attraction (A)
• Magnetism (A)
• Magnets (A)
• Matter Matters (A)
• The Water Cycle (A)</td><td>• Graphic Features (CL-2, A-1 War Machines-Siege Engines)</td></tr>
<tr><td colspan="3">SC.3.P.11: Big Idea 11: Energy Transfer and Transformations
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.
SC.5.P.11.1: Investigate and illustrate the fact that the flow of electricity requires a closed circuit (a complete loop).
SC.5.P.11.2: Identify and classify materials that conduct electricity and materials that do not.</td></tr>
<tr><td>• Good Vibes – Making Waves with Sound
• Olympic Champs: It's Not Just Luck – It's Physics!
• Powering Our Lives with Energy
• Unbalanced Forces</td><td>• Cool Beams (A)
• Magnetic Attraction (A)
• Magnetism (A)
• Magnets (A)
• Matter Matters (A)</td><td>• Graphic Features (CL-1, A-2 Greenhouse Effect)</td></tr>
<tr><td colspan="3">12 SC.5.P.13: Big Idea 13: Forces and Changes in Motion
A. It takes energy to change the motion of objects.
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.
SC.5.P.13.1 Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.
SC.5.P.13.2Investigate and describe that the greater the force applied to it, the greater the change in motion of a given object.
SC.5.P.13.3Investigate and describe that the more mass an object has, the less effect a given force will have on the object's motion.
SC.5.P.13.4 Investigate and explain that when a force is applied to an object but it does not move, it is because another opposing force is being applied by something in the environment so that the forces are balanced.</td></tr>
<tr><td>• Olympic Champs: It's Physics!
• Unbalanced Forces
• Powering Our Lives with Energy</td><td>• Cool Beams (A)
• Matter Matters (A)</td><td></td></tr>
</table>

Readorium Alignment with Next Generation Sunshine State Standards: Grade 5

SC.5.P: Physical Science Continued

SC.5.P.8: Big Idea 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.

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.5.P.8.1: Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.

SC.5.P.8.2: Investigate and identify materials that will dissolve in water and those that will not and identify the conditions that will speed up or slow down the dissolving process.

SC.5.P.8.3: Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.

SC.5.P.8.4: Explore the scientific theory of atoms (also called atomic theory) by recognizing that all matter is composed of parts that are too small to be seen without magnification.

Readorium Books By Standard	Magazine Articles (A) and Science Alive Videos (V) By Standard	Teacher Resource Center Classroom Strategy Lessons (CL) with Articles (A) by Standard
• Unbalanced Forces • Powering Our Lives with Energy	• Cool Beams (A) • Fishing for Magnets • Magnetic Attraction (A) • Magnetism (A) • Magnets (A) • Matter Matters (A)	

SC.5.P.9: Big Idea 9: Changes in Matter

A. Matter can undergo a variety of changes.

B. Matter can be changed physically or chemically.

SC.5.P.9.1: Investigate and describe that many physical and chemical changes are affected by temperature.

• Food Chemistry • Making Movie Magic • Olympic Champs: It's Not Just Luck – It's Physics! • Solving Crimes with Forensics • Powering Lives with Energy	• The Water Cycle (A)	

Readorium Alignment with Next Generation Sunshine State Standards: Grade 5		
SC.5.L: Life Science		
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**
SC.5.L.14: Big Idea 14: Organization and Development of Living Organisms A. All plants and animals, including humans, are alike in some ways and different in others. B. All plants and animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce. C. Humans can better understand the natural world through careful observation. SC.5.L.14.1Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs. SC.5.L.14.2: Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support -- some with internal skeletons others with exoskeletons -- while some plants have stems for support.		
• Beetlemania • Birds of a Feather • Buzzing About Bees and Wasps • Dependency of Life • Exploring Ecosystems • Weird and Wonderful World of Plants	• How Plants Survive (Parts 1 and 2) (A) • The Tiny World of Cells (A) • Antlers, Shells, and Beaks (V) • Babies and Learning (V) • Bird Brains (V) • Emperor Penguins (V) • How Do We Think? (V) • Leaf Cutter Ants (V) • Song: Science Pirates: Bacteria (V)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Main Idea/Details (CL-3, A-3 Why Do Geese Fly in a V-Shape?) • Questioning (CL-1, A-1 White-Throated Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites: Nature's Thieves) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is a Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)
SC.5.L.15: Big Idea 15: Diversity and Evolution of Living Organisms A. Earth is home to a great diversity of living things, but changes in the environment can affect their survival. B. Individuals of the same kind often differ in their characteristics and sometimes the differences give individuals an advantage in surviving and reproducing. SC.5.L.15.1: Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.		
• Beetlemania • Birds of a Feather • Buzzing About Bees & Wasps • Deadliest Creatures • Deep Sea Creatures • Dependency of Life • Exploring Ecosystems • Invasive Species • Life and Death in the Wild • Our Gross World • Secret Languages of Animals • Smarter than You Think - Animals that Amaze • Spider Stories • Weird and Wonderful Plants	• Bee-Bee Behavior (A) • Cicadas (A) • Dandelions (A) • Dinosaurs - Carnivores (A) • Dinosaurs - Herbivores (A) • Emperor Penguins • How Plants Survive (Pts 1 and 2) (A) • Interesting Animal Relationships (A) • Leaf Cutter Ants • Shrimp and Fish Couple (A) • Venus Flytrap - A Meat-Eating Plant (A) • Antarctic Krill (V) • Batty for Bats (V) • Beluga Whales (V) • How Do We Think?(V) • Sea Turtles (V) • Social Insects (V)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Questioning (CL-1, A-1 Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 5		
SC.5.L: Life Science 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**
SC.5.L.17 : Big Idea 17: Interdependence A. Plants and animals, including humans, interact with and depend upon each other and their environment to satisfy their basic needs. B. Both human activities and natural events can have major impacts on the environment. C. Energy flows from the sun through producers to consumers. SC.5.L.17.1: Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.		
• Beetlemania • Birds of a Feather • Buzzing About Bees & Wasps • Deadliest Creatures • Deep Sea Creatures • Dependency of Life • Exploring Ecosystems • Invasive Species • Life and Death in the Wild • Our Gross World • Secret Languages of Animals • Smarter than You Think - Animals that Amaze • Spider Stories • Weird and Wonderful Plants	• Bee-Bee Behavior (A) • Cicadas (A) • Dandelions (A) • Dinosaurs - Carnivores (A) • Dinosaurs - Herbivores (A) • Fireflies of the Ocean (A) • How Plants Survive (Pts 1 and 2) (A) • Antlers, Shells, and Beaks (V) • Interesting Animal Relationships (A) • Leaf Cutter Ants (V) • Orangutan Copycats (V) • Polar Bears (A) • Shrimp and Fish Couple (A) • The Tiny World of Cells (A) • Venus Flytrap A Meat-Eating Plant (A)	• Main Idea/Details (CL-3, A-1 How Much Water Does a Camel's Hump Hold?) • Main Idea/Details (CL-3, A-2 Can You Tell the Temperature by Listening to a Cricket Chirp?) • Main Idea/Details (CL-1, A-1 Mantled Howler Monkeys) • Inferring (CL-2, A-2 The Marabou Stork) • Main Idea/Details (CL-3, A-3 Why Do Geese Fly in a V-Shape?) • Questioning (CL-1, A-1 Capuchins) • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites) • Text Organization (CL-2, A-1 Inside Your Body) • Word Learning (CL-2, A-2 What is Waterfowl?) • Word Learning (CL-2, A-1 What Makes a Bird a Bird?) • Word Learning (CL-2, A-3 Webbed Wonders)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 5		
SC.5.E: Earth and Space Science		
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**
SC.4.E.5: Big Idea 5: Earth in Space and Time: Humans continue to explore Earth's place in space. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the Solar System, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of our Solar System. SC.5.E.5.1: Recognize that a galaxy consists of gas, dust, and many stars, including any SC.5.E.5.2: Recognize the major common characteristics of all planets and compare/contrast the properties of inner and outer planets. SC.5.E.5.3: Distinguish among the following objects of the Solar System -- Sun, planets, moons, asteroids, comets -- and identify Earth's position in it.		
• Living in Space • Our Planet Earth • Deep Space	• A Trip to Mars (A) • Aurora Borealis (A) • Catching a Comet (A) • Future of the Sun (A) • Our Galactic Neighborhood (A) • Our Own Star (A) • Spirit & Opportunity on Mars (A) • The Surface and Eclipses of the Moon(A) • Strange Stars (A) • The Challenge of Gravity (A) • Voyager Space Probes(A) • Where did the Planets Come From? (A) • Black Holes (V)	• Text Organization (CL-1, A-1, Satellites) • Text Organization (CL-1, A-2 Satellites in Outer Space) • Text Organization (CL-1, A-3 How Satellites Work)
SC.4.E.7: Big Idea 7: Earth Systems and Patterns: Humans continue to explore the interactions among water, air, and land. Air and water are in constant motion that results in changing conditions that can be observed over time. SC.5.E.7.1: Create a model to explain parts of the water cycle. Water can be gas, liquid, or solid and can go back and forth from one state to another SC.5.E.7.2: Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs via evaporation and precipitation processes. SC.5.E.7.3: Recognize how air temperature, barometric pressure, humidity, wind speed and direction, and precipitation determine the weather in a particular place and time. SC.5.E.7.4: Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time. SC.5.E.7.5: Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains. SC.5.E.7.6: Describe characteristics (temperature and precipitation) of different climate zones as they relate to latitude, elevation, and proximity to bodies of water. SC.5.E.7.7: Design a family preparedness plan for natural disasters and identify the reasons for having such a plan.		
• Polluting Our Earth • Exploring the Ocean Depths • Earth's Systems • Weather Around the World • Natural Hazards • Changing Face of Earth • Powering Our Lives with Energy	• All about Recycling (A) • Glaciers (A) • Rocks Rock (A) • The Water Cycle (A) • Too Much Water (A) • Tsunami Research (V) • What is Sea Ice and Why is it Shrinking?(V) • When Lightning strikes (V)	• Author's Purpose (CL-1, A-1 Weather Scientist) • Graphic Features (CL-1, A-3 Climate Changing) • Inferring (CL-1, A-1 What Causes Seasons?)

Readorium Alignment with Next Generation Sunshine State Standards: Grade 5		
SC.5.N: Nature of Science		
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**
SC.5.N.1.1: Big Idea 1: The Practice of Science Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.. SC.5.N.1.1: Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions. SC.5.N.1.2: Explain the difference between an experiment and other types of scientific investigation. SC.5.N.1.3: Recognize and explain the need for repeated experimental trials. SC.5.N.1.4: Identify a control group and explain its importance in an experiment. SC.5.N.1.5: Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method." SC.5.N.1.6: Recognize and explain the difference between personal opinion/interpretation and verified observation.		
• Computer Revolution • Improving Lives With Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Science Girls • Technology Changes Medicine • Weather Around the World	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Movie Stunts (A) • Transistors (A)	• Questioning (CL-2, A1 Crazy Careers in Science)
SC.5.N.2.1 **Big Idea 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. SC.5.N.2.1: Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence. SC.5.N.2.2: Recognize and explain that when scientific investigations are carried out, the evidence produced should be replicable by others.		
• Science, What's It All About? • Powering Our Lives with Energy	• The Biggest Shadow of All - An Eclipse (A) • The Challenge of Gravity (A) • Core on the Floor(V) • Earthquakes (V)	

Readorium Alignment with Next Generation Sunshine State Standards: Grade 3-5		
Computer Science		
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**
SC.35.CS-CS.1.2: Describe how models and simulations can be used to solve real-world issues in science and engineering. SC.35.CS-CS.1.3: Answer a question, individually and collaboratively, using data from a simulation.		
• Computer Revolution • Improving Lives With Assistive Technology • Making Movie Magic • On the Move with Transportation Technology • Science Girls • Technology Changes Medicine • Weather Around the World	• A Computer's Best Friend (A) • Amazing Teen Scientist (A) • Biotechnology (A) • Cool Beams (A) • Crime Scene Science (A) • Look a Rainbow (A) • Movie Stunts (A) • Transistors (A) • Just by a Whisker (V) • RoboBees (V) • Robotic Arms (V) • The SpelBots (V) • Virtual Reality Scientists (V)	