

Readorium Alignment with FOSS Kit-Structures of Life

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
--------------------------------	---	---

NGSS: 4-LS1.A. From Molecules to Organisms: Structures and Processes: Structure and Function: Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)

<ul style="list-style-type: none"> • Beetlemania • Birds of a Feather • Buzzing About Bees and Wasps • Deep Sea Creatures • Invasive Species • Exploring Ecosystems • How We Learn • Life and Death in the Wild • Our Gross World • The Secret Languages of Animals • Smarter than you think • Spider Stories • Weird and Wonderful Plants 	<ul style="list-style-type: none"> • Amazing Water Bear (A) • Bee Bee-havior (A) • Beneath the Fin (A) • Carnivorous Dinosaurs (A) • Cicada Swarm (A) • Friendship of a Goby and a Shrimp (A) • Hair Time! (A) • How Spiders Catch Prey (A) • Science of Jelly Beans (A) • Venus Flytrap: A Meat-Eating Plant (A) • Walruses (V) • Wonder Fabrics - Things that Can't get Wet!(A) • Why Dandelions Are Dandy (A) • Batty for Bats (V) • Emperor Penguins (V) • Sea Turtles (V) • Bird Brains (V) • Antlers, Shells, & Beaks (V) • Leaf Cutter Ants (V) • Social Insects (V) • Picking Your Brain (V) • How Do We Think?(V) • Just by a Whisker (V) • Antarctic Krill (V) • Polar Bears (V) • Walruses (V) 	<ul style="list-style-type: none"> • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-1, A-3 Sloths) • Word Learning (CL-2, A-1 What Makes a Bird a Bird) • Word Learning (CL-2, A-2 What is a Waterfowl?) • Word Learning (CL-2, A-3 Webbed Wonders) • Text Organization (CL-2, A-1 Inside Your Body) • Text Organization (CL-2, A-2 Disease Database) • Text Organization (CL-2, A-3 All About Asthma)
---	---	--

NGSS: 4-LS1.D From Molecules to Organisms: Structures and Processes: Information Processing: Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions. (4-LS1-2)

<ul style="list-style-type: none"> • Birds of a Feather • Buzzing About Bees and Wasps • How We Learn • Improving Lives with Assistive Technology 	<ul style="list-style-type: none"> • Bee Bee-havior (A) • Beneath the Fin (A) • Brain (The)! (A) • Fireflies of the Ocean (A) • How Do We Think? (A) 	<ul style="list-style-type: none"> • Main Idea and Details (CL-4, A-1, Does Your Heart Stop When You Sneeze?) • Main Idea and Details (CL-4, A-2, Why Do We Yawn?)
---	---	--

<ul style="list-style-type: none"> • Making Movie Magic • Secret Languages of Animals • Smarter Than You think • Weird and Wonderful Plants 	<ul style="list-style-type: none"> • Interesting and Funny Animal Relationships (A) • Raise Your Voice (A) • Invasion of Earthworms! (V) • Sweet Treat (A) • Twin Fascination (A) • Tigers and Lions! (A) • Why Are Some Hands More "Handy" Than Others? (A) • Venus Flytrap: A Meat-Eating Plant (The) (A) • Babies and Learning (V) • Picking Your Brain (V) • Leaf Cutter Ants (V) • Sea Turtles (V) • Social Insects (V) • Batty for Bats (V) • Beluga Whales (V) • Bird Brains (V) • Robo Bees (V) • The SpelBots (V) 	
---	--	--

NGSS: 3-PS3.D. Energy: Energy in Chemical Processes and Everyday Life: The expression “produce energy” typically refers to the conversion of stored energy into a desired form for practical use. (4-PS3-4)

<ul style="list-style-type: none"> • Amusement Park Physics • Changing Face of Earth, The • Deep Space • Olympic Champs: It's Not Just Luck – It's Physics! • Unbalanced Forces 	<ul style="list-style-type: none"> • A River of Ice (A) • Adventures of Messy Magnet (A) • A Magnet Experiment (A) • Magnificent Magnets (A) • Making Hovercrafts (A) • Simple Machines: Fun Facts and Riddles (A) 	
--	--	--

NGSS: 3-ETS1.A Engineering Design: Defining and Delimiting an Engineering Problem: Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1) (secondary to 4-PS3-4)

<ul style="list-style-type: none"> • Computer Revolution • Deep Space • Earth’s Systems • Exploring the Ocean's Depths • Improving Lives with Assistive Technology • Living in Space • Making Movie Magic • Olympic Champs: It's Not Just Luck – It's Physics! 	<ul style="list-style-type: none"> • The Science of Jelly Beans(A) • Amazing Teen Scientist (A) • The Science of Movie Stunts (A) • Cool Beams! (A) • Robotic Arms (V) • The SpelBots (V) 	<ul style="list-style-type: none"> • Word Learning (CL-1, A-1 Introduction to Archeology) • Word Learning (CL-1, A-2 How Archeologists Work) • Word Learning (CL-1, A-3 The Archeology Lab)
--	---	--

<ul style="list-style-type: none"> • On the Move with Transportation Technology • Powering Our Lives with Energy • Technology Changes Medicine 		
<p>NGSS: 3-ETS1.B Engineering Design: Developing Possible Solutions: Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2)</p> <p>At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3-5-ETS1-2)</p> <p>Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3)</p> <p>Testing a solution involves investigating how well it performs under a range of likely conditions. (secondary to 4-ESS3-2)</p>		
<ul style="list-style-type: none"> • Improving Lives with Assistive Technology • Living in Space • Olympic Champs: It's Not Just Luck – It's Physics! • On the Move with Transportation Technology • Powering Our Lives with Energy • Science - What's it All About? • Solving Crime with Forensics • Technology Changes Medicine 	<ul style="list-style-type: none"> • Amazing Teen Scientist (A) • A Computer's Best Friend (A) • Why Are Some Hands More "Handy" Than Others? (A) • Mysteries of the Common Cold (A) • Breathe Easier - Understanding Asthma (A) • All About Recycling(A) • Shrimp Farming: A Shocking Environment (A) 	<ul style="list-style-type: none"> • Graphic Features (CL-2, A-1 War Machines-Siege Engines)
<p>NGSS: 3-ETS1.C Engineering Design: Optimizing the Design Solution: Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3-5-ETS1-3) (secondary to 4-PS4-3)</p>		
<ul style="list-style-type: none"> • Science - What's It All About? 	<ul style="list-style-type: none"> • Biotechnology (A) • Virtual Reality Scientists (V) • Cancer: Cells Out of Control • RoboBees (V) • Twin Fascination(A) • Robotic Arms (V) • The SpelBots (V) 	