

Readorium Alignment to Foss Kit-Diversity 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
<p>NGSS: 5-LS1.C. From Molecules to Organisms: Structures and Processes: Organization for Matter and Energy Flow in Organisms: Food provides animals with materials they need for body repair and growth and the energy they need to maintain body warmth and for motion (secondary to 5-PS3-1)</p> <p>Plants acquire their material for growth chiefly from air and water. (5-LS1-1)</p>		
<ul style="list-style-type: none"> • Dependency of Life, The • Weird and Wonderful World of Plants 	<ul style="list-style-type: none"> • Splash (A) • How Plants Survive: Part 1(A) • How Plants Survive: Part 2 (A) 	<ul style="list-style-type: none"> • Graphic Features (CL-1, A-2 Greenhouse Effect)
<p>NGSS: 5-LS2.A. Ecosystems: Interactions, Energy, and Dynamics: Interdependent Relationships in Ecosystems: The food of almost any kinds of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plant parts and animals) and therefore operate as “decomposers”.</p> <p>Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)</p>		
<ul style="list-style-type: none"> • Beetlemania • Birds of a Feather • Buzzing About Bees and Wasps • Dependency of Life, The • Deep Sea Creatures • Exploring Ecosystems • Exploring the Ocean's Depths • Life and Death in the Wild • Our Gross World • Weird and Wonderful Plants 	<ul style="list-style-type: none"> • Fireflies of the Ocean(A) • Splash (A) • Leaf Cutter Ants (V) • Invasion of the Earthworms! (V) • Virtual Reality Scientists (V) • Core on the Floor(V) • Just by a Whisker (V) 	<ul style="list-style-type: none"> • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites: Nature's Thieves)
<p>NGSS: 5-LS2.B. Ecosystems: Interactions, Energy, and Dynamics: Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1)</p>		
<ul style="list-style-type: none"> • Beetlemania • Birds of a Feather • Buzzing About Bees and Wasps • Dependency of Life, The • Deep Sea Creatures • Exploring Ecosystems • Exploring the Ocean's Depths • Life and Death in the Wild • Our Gross World 	<ul style="list-style-type: none"> • Fireflies of the Ocean(A) • Splash (A) • Leaf Cutter Ants (V) • Invasion of the Earthworms! (V) • Virtual Reality Scientists (V) • Core on the Floor(V) • Just by a Whisker (V) 	<ul style="list-style-type: none"> • Questioning (CL-1, A-2 Agoutis) • Questioning (CL-2, A2 Vampires in Nature) • Questioning (CL-2, A3 Parasites: Nature's Thieves)

<ul style="list-style-type: none"> • Weird and Wonderful Plants 		
<p>NGSS: 5-ESS2.A. Earth's Systems: Earth Materials and Systems: Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. (5-ESS2-1)</p>		
<ul style="list-style-type: none"> • Earth's Systems • Polluting Our Earth 	<ul style="list-style-type: none"> • The Water Cycle (A) • All about recycling (A) • Rocks Rock! (A) • When Lightning strikes (V) • What is Sea Ice and Why is it Shrinking?(V) • Earthquakes (V) 	
<p>NGSS: 5-ESS2.C. Earth's Systems: The Roles of Water in Earth's Surface Processes: Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere.</p>		
<ul style="list-style-type: none"> • Changing Face of Earth, The • Exploring the Ocean's Depths 	<ul style="list-style-type: none"> • Amazing Water Bear (A) • The Water Cycle (A) 	
<p>NGSS: 5-ESS3.C. Earth and Human Activity: Human Impacts on Earth System: Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, oceans, air and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. (5-ESS3-1)</p>		
<ul style="list-style-type: none"> • Changing Face of Earth • Earth's Systems • Exploring the Ocean's Depths • Invasive Species • Natural Hazards that Shape the Earth • Our Planet Earth • Polluting Our Earth • Powering Our Lives with Energy 	<ul style="list-style-type: none"> • All About Recycling (A) • A Computer's Best Friend (A) • Earthquakes (V) • Robotic Arms (V) • Debris Filling the Ocean(V) 	<ul style="list-style-type: none"> • Click or Clunk (CL-1, A-1 Why Save Rainforests?) • Click or Clunk (CL-2, A-1 Illegal Wildlife Trade) • Click or Clunk (CL-2, A-2 Garbage Island)
<p>NGSS: 5-PS3.D. Energy: Energy in Chemical Processes and Everyday Life: The energy released (from) food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). (5-PS3-1)</p>		
<ul style="list-style-type: none"> • Dependency of Life, The • Weird and Wonderful World of Plants 	<ul style="list-style-type: none"> • Biotechnology (A) • A Sweet Treat (A) 	
<p>NGSS: 5-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)</p>		
<ul style="list-style-type: none"> • Computer Revolution • Deep Space • Earth's Systems • Exploring the Ocean's Depths 	<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) 	<ul style="list-style-type: none"> • Word Learning (CL-1, A-1 Introduction to Archeology) • Word Learning (CL-1, A-2 How Archeologists Work)

<ul style="list-style-type: none"> • Improving Lives with Assistive Technology • Living in Space • Making Movie Magic • Olympic Champs: It's Not Just Luck – It's Physics! • On the Move with Transportation Technology • Powering Our Lives with Energy • Tech Changes Medicine 	<ul style="list-style-type: none"> • The SpelBots (V) 	<ul style="list-style-type: none"> • Word Learning (CL-1, A-3 The Archeology Lab)
<p>NGSS: 5-ETS1.B. Engineer 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>		
<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) 	<ul style="list-style-type: none"> • Graphic Features (CL-2, A-1 War Machines-Siege Engines)
<p>NGSS: 5-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) 	