

Readorium Alignment to FOSS Kit: Genetics, Inheritance & Variance of Traits		
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: 6-8-LS3.A. Heredity: Inheritance and Variation of Traits: Inheritance of Traits: Genes are located in the chromosomes of cells, with each chromosomes pair containing two variants of each of many distinct genes. Each distinct gene chiefly controls the production of specific proteins, which in turn affects the traits of the individual. Changes (mutations) to genes can result in changes to proteins, which can affect the structures and functions of the organism and thereby change traits. (MS-LS3-1)</p> <p>Variations of inherited traits between parent and offspring arise from genetic differences that result from the subset of chromosomes (and therefore genes) inherited. (MS-LS3-2)</p>		
<ul style="list-style-type: none"> • Desert Biomes • Surviving in Nature 	<ul style="list-style-type: none"> • How Video Games Affect Personality (A) • Strange Medical Conditions (A) • Why Are Some Hands more “Handy”(A) 	<ul style="list-style-type: none"> •
<p>NGSS: 6-8-LS3.B. Heredity: Inheritance and Variation of Traits: Variation of Traits: In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other. (MS-LS3-2)</p> <p>In addition to variations that arise from sexual reproduction, genetic information can be altered because of mutations. Though rare, mutations may result in changes to the structure and function of proteins. Some changes are beneficial, others harmful, and some neutral to the organism. (MS-LS3-1)</p>		
<ul style="list-style-type: none"> • Mitosis and Meiosis • Genetics 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •
<p>NGSS: 6-8-LS4.A. Heredity: Biological Evolution: Unity and Diversity: Evidence of Common Ancestry and Diversity:</p> <p>The collection of fossils and their replacement in chronological order (e.g. through the location of sedimentary layers in which they are found or through radioactive dating) is known as the fossil record. It documents the existence, diversity, extinction, and change of many life forms throughout the history of life on Earth. (MS-LS4-1)</p> <p>Anatomical similarities and differences between various organisms living today and between them and organisms in the fossil record, enable the reconstruction of evolutionary history and the inference of lines of evolutionary descent. (MS-LS4-2)</p>		
<ul style="list-style-type: none"> • Surviving in Nature 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 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-2, A-1 The Call of the Tinamou)
<p>NGSS: 6-8-LS4.B. Heredity: Biological Evolution: Unity and Diversity: Natural Selection: In artificial selection, humans have the capacity to influence certain characteristics of organisms by selective breeding. One can choose desired parental traits determined by genes, which are then passed on to offspring. (MS-LS4-5)</p>		
<ul style="list-style-type: none"> • Desert Biomes • Nature’s Weird Surprises • Scientists who Changed the World • Surviving in Nature 	<ul style="list-style-type: none"> • From Blinking to Thinking: The Amazing Human Brain (A) 	<ul style="list-style-type: none"> • Context Clues (CL-1, A-1 Life Inside Deep Caves)