Standard ID	Standard Text	Edgenuity Lesson Name
NGSS.MS-LS.	LIFE SCIENCE (NGSS)	
MS-LS1.	From Molecules to Organisms: Structures and Processes Students who demonstrate understanding can:	
MS-LS1-1.	Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.	
		Characteristics of Life Cell Theory Lab: Exploring Cells Bacteria Protists Fungi
MS-LS1-2.	Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	
		Cell Structure Animal and Plant Cells Lab: Exploring Cells Cellular Interactions with the Environment Photosynthesis Cellular Respiration Cell Cycle Meiosis Genetic Code Lab: Building Proteins from RNA
MS-LS1-3.	Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.	
		Body Organization and Homeostasis The Musculoskeletal and Integumentary Systems The Nervous and Endocrine Systems The Circulatory and Respiratory Systems The Digestive and Excretory Systems The Reproductive System The Immune System

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MS-LS1-4.	Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.	
		Overview of Plants
		Seed Plants
		Seedless Plants
		Gymnosperms
		Angiosperms
		Lab: Flower Dissection
		Plant Responses
		Overview of Animals
		Animal Behavior
		Lab: Earthworm Behavior
MS-LS1-5.	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	
		Genetic Code
		DNA Mutations
		Introduction to Heredity
		Predicting Heredity
		Lab: Heredity and Punnett Squares
		Inheritance Patterns
		Human Inheritance
		Natural Selection
		Lab: Natural Selection
		Populations
MS-LS1-6.	Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.	
		Photosynthesis
		Cycles of Matter
		Energy Flow in Ecosystems

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MS-LS1-7.	Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.	
		Building Blocks of Life Catalysts Lab: Identifying Nutrients The Digestive and Excretory Systems
MS-LS1-8.	Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.	
		The Nervous and Endocrine Systems
MS-LS2.	Ecosystems: Interactions, Energy, and Dynamics Students who demonstrate understanding can:	
MS-LS2-1.	Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.	
		Living Things and the Environment Biodiversity Populations Cycles of Matter Energy Flow in Ecosystems
MS-LS2-2.	Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	
		Interactions among Living Things Lab: Owl Pellets Lab: Interdependence of Organisms Energy Flow in Ecosystems Biomes
MS-LS2-3.	Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	
		Cycles of Matter Energy Flow in Ecosystems
MS-LS2-4.	Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.	
		Succession Lab: Ecological Succession Natural Environmental Change Human Impact on the Environment

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MS-LS2-5.	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.	Biodiversity
MS-LS3.	Heredity: Inheritance and Variation of Traits Students who demonstrate understanding can:	
MS-LS3-1.	Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.	DNA Mutations
MS-LS3-2.	Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.	Cell Cycle Meiosis Asexual and Sexual Reproduction Introduction to Heredity Predicting Heredity Lab: Heredity and Punnett Squares Inheritance Patterns
MS-LS4.	Biological Evolution: Unity and Diversity Students who demonstrate understanding can:	
MS-LS4-1.	Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past.	The Theory of Evolution The Fossil Record Evidence for Evolution
MS-LS4-2.	Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.	Evolutionary Relationships Introduction to Classification Classification of Living Things Dichotomous Keys Lab: Dichotomous Keys

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MS-LS4-3.	Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy.	Evidence for Evolution
MS-LS4-4.	Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.	Natural Selection
MS-LS4-5.	Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.	Advances in Genetics
MS-LS4-6.	Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.	Lab: Natural Selection