

Middle School Life Sciences 2016

Standards & Units	Sept.	Nov.	Jan.	March	May
NJ Core Curriculum Content Standards > Science Arranged by Topic > Middle School Life Sciences(2014)					
{SCI.MS} Structure, Function, and Information Processing					
Grade 7, Science, Unit 1, Structure, Function and Information Processing					
{SCI.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.					
Grade 7, Science, Unit 1, Structure, Function and Information Processing					
{SCI.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.					
Grade 7, Science, Unit 1, Structure, Function and Information Processing					
{SCI.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.					
Grade 7, Science, Unit 1, Structure, Function and Information Processing					
{SCI.MS-LS1-3} Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.					
Grade 7, Science, Unit 1, Structure, Function and Information Processing					
{SCI.MS} Natural Selection and Adaptations					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.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.					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.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.					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.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.					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.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.					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.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.					
Grade 7, Science, Unit 3, Natural Selection and Adaptations					
{SCI.MS} Matter and Energy in Organisms and Ecosystems					
{SCI.MS-LS2-4} Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.					
Grade 7, Science, Unit 5, Matter & Energy in Organisms & Ecosystems					
{SCI.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.					
Grade 7, Science, Unit 5, Matter & Energy in Organisms & Ecosystems					
{SCI.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.					
Grade 7, Science, Unit 5, Matter & Energy in Organisms & Ecosystems					
{SCI.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.					
Grade 7, Science, Unit 5, Matter & Energy in Organisms & Ecosystems					
{SCI.MS-LS2-3} Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.					
Grade 7, Science, Unit 5, Matter & Energy in Organisms & Ecosystems					
{SCI.MS} Interdependent Relationships in Ecosystems					
{SCI.MS-LS2-2} Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.					

	Grade 7, Science, Unit 4, Interdependent Relationship in Ecosystems								
{SCI.MS-LS2-5}	Evaluate competing design solutions for maintaining biodiversity and ecosystem services.								
	Grade 7, Science, Unit 4, Interdependent Relationship in Ecosystems								
{SCI.MS}	Growth, Development, and Reproduction of Organisms								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								
{SCI.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.								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								
{SCI.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.								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								
{SCI.MS-LS4-5}	Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								
{SCI.MS-LS1-5}	Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								
{SCI.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.								
	Grade 7, Science, Unit 2, Growth, Development, and Reproduction of Organisms								