NGSS Disciplinary Core Ideas Matrix

	DCI	Topic	K	1	2	3	4	5	MS-LS	MS-PS	MS-ESS	MS-ETS	HS-LS	HS-PS	HS-ESS	HS-ENG
Life Sciences	LS1A	Structure and Function		■			■		■				■			
	LS1B	Growth and Development of Organisms		■		■			■				■			
	LS1C	Organization for Matter and Energy Flow in Organisms	■					■	■				■			
	LS1D	Information Processing		■			■		■							
	LS2A	Interdependent Relationships in Ecosystems			■			■	■				■			
	LS2B	Cycles of Matter and Energy Transfer in Ecosystems						■	■				■			
	LS2C	Ecosystem Dynamics, Functioning, and Resilience				■			■				■			
	LS2D	Social Interactions and Group Behavior				■							■			
	LS3A	Inheritance of Traits		■		■			■				■			
	LS3B	Variation of Traits		■		■			■				■			
	LS4A	Evidence of Common Ancestry and Diversity				■			■				■			
	LS4B	Natural Selection				■			■				■			
	LS4C	Adaptation				■			■				■			
	LS4D	Biodiversity and Humans			■	■			■				■			
Physical Sciences	PS1A	Structure and Properties of Matter			■			■		■				■		
	PS1B	Chemical Reactions			■			■		■				■		
	PS1C	Nuclear Processes												■	■	
	PS2A	Forces and Motion	■			■				■				■		
	PS2B	Types of Interactions	■			■		■		■				■		
	PS2C	Energy in Chemical Processes and Everyday Life							■							
	PS3A	Definitions of Energy					■			■				■		
	PS3B	Conservation of Energy and Energy Transfer	■				■			■				■		
	PS3C	Relationships Between Energy and Forces	■				■			■				■		
	PS3D	Energy in Chemical Properties and Everyday Life					■	■					■	■	■	
	PS4A	Wave Properties		■			■			■				■	■	
	PS4B	Electromagnetic Radiation		■			■			■				■	■	
	PS4C	Information Technologies and Instrumentation		■			■			■				■		
Earth Space Sciences	ESS1A	The Universe and its Stars		■				■			■				■	
	ESS1B	Earth and the Solar System		■				■			■				■	
	ESS1C	The History of Planet Earth			■		■				■				■	
	ESS2A	Earth Materials and Systems			■		■	■			■				■	
	ESS2B	Plate Tectonics and Large-Scale Systems			■		■				■				■	
	ESS2C	The Roles of Water in Earth's Surface Processes			■			■			■				■	
	ESS2D	Weather and Climate	■			■					■				■	
	ESS2E	Biogeology	■				■				■				■	
	ESS3A	Natural Resources	■				■				■				■	
	ESS3B	Natural Hazards	■			■	■				■				■	
	ESS3C	Human Impacts on Earth Systems	■					■			■				■	
	ESS3D	Global Climate Change									■				■	
ETS	ETS1A	Defining and Delimiting Engineering Problems	■	■	■	■	■	■		■		■		■		■
	ETS1B	Developing Possible Solutions	■	■	■	■	■	■	■	■		■	■		■	■
	ETS1C	Optimizing Design Solutions	■	■	■	■	■	■		■		■		■		■