Standards Alignment

The chart below and on the following pages show what middle school standards are taught in each module. Focus standards (F) appear multiple times throughout the module and receive specific instruction. Background standards (B) are utilized less frequently in the module and may not be addressed explicitly.

For more detailed information about the standards themselves, what aspects of each standard appear in each module, and standards for additional grade levels, see each module's specific standards overview pages.

		Module 1	Module 2	Module 3	Module 4	Module 5
NGSS Science & Engineering Practices	Developing and Using Models	F	F		F	
	Planning and Carrying Out Investigations	B			B	B
	Constructing Explanations	B		B	F	
	Obtaining, Evaluating, and Communicating Information		B			
	Engaging in Argument from Evidence			F		
	Analyzing Data			B		F
	Asking Questions & Defining Problems					B
	Using Mathematics & Computational Thinking					B
NGSS Disciplinary Core Ideas	LS 1.A Structure & Function	F				
	LS 2.A Independent Relationships in Ecosystems	B		B		
	LS 2.C Ecosystem Dynamics, Functioning, and Resilience			B	F	
	ESS 2.D Weather & Climate		B			
	ESS 3.C Human Impacts on Earth Systems		F	F	B	B
	ESS 3.D Global Climate Change					F
	ETS 1.B: Developing Possible Solutions			B		
NGSS Crosscutting Concepts	Systems and System Models	F	B		F	
	Cause & Effect	B		F	F	F
	Patterns		F			B
	Scale, Proportion & Quantity					B

NGSS Performance Expectations		Module 1	Module 2	Module 3	Module 4	Module 5
	MS-LS 1-3 The body is a system of interacting subsystems	F				
	MS-LS 2-3 Cycling of matter and flow of energy in ecosystems	B				
	MS-LS 2-4 Changes to physical or biological components of an ecosystem affect populations			B	F	
	MS-ESS 3-3 Monitor and minimize a human impact on the environment		B	F		B
	MS-ESS 3-4 Human population and consumption of natural resources impact Earth systems		F			B
	MS-ESS 3-5 Rise in global temperatures					F

		Module 1	Module 2	Module 3	Module 4	Module 5
Virginia Standards of Learning Scientific Practices	6.1 (b) Planning and Carrying Out Investigations	B			B	B
	6.1 (c) Interpreting, Analyzing, and Evaluating Data			B		F
	6.1 (e) Developing and Using Models	F	F		F	
	6.2 (d) Constructing and Critiquing conclusions and explanations	B		F	F	
	Earth Science.1 Asking Questions and Defining Problems					B
Virginia Standards of Learning Science Content	6.7 Air has properties and Earth's atmosphere has structure and is dynamic		B			
	6.8 Land and water have roles in watershed systems				F (a,c,d)	
	6.9 Human impact on the environment	F (c)	F (c)	F (c,e,f)		
	Earth Science.6 Resource use is complex					B (a)
	Earth Science.11 Atmosphere is a complex, dynamic system					F (d) B (c)
	Earth Science.12 Earth's weather and climate					F (e)

		Module 1	Module 2	Module 3	Module 4	Module 5
Common Core State Standards – Literacy	RST.6-8.3: Follow a multistep procedure when carrying out experiments	✔	✔	✔	✔	✔
	RST.6-8.4: Determine the meaning of symbols, terms, words, and phrases in context	✔		✔		✔
	RST.6-8.7: Integrate information from a text with visual information	✔	✔		✔	✔
	WHST.6-8.1: Write arguments focused on discipline-specific content	✔		✔	✔	
	WHST.6-8.1B: Support claims with logical reasoning, data and evidence			✔	✔	
	WHST.6-8.2: Write informative/ explanatory texts					✔
	WHST.6-8.9: Draw evidence from informational texts				✔	
	SL.8.1: Engage in a range of collaborative discussions	✔	✔	✔	✔	✔
	SL.8.4: Present claims and findings			✔	✔	
	SL.8.5: Integrate multimedia and visual displays into presentations				✔	
Common Core State Standards – Math	MP.3: Construct viable arguments and critique the reasoning of others	✔				✔
	6.RP.A.1: Understand the concept of a ratio and use ratio language		✔			✔
	6.RP.A.3: Use ratio and rate reasoning to solve real world and mathematical problems	✔	✔			✔
	6.SP.B.5: Summarize numerical data sets in relation to their context	✔		✔	✔	✔
	7.RP.A3: Use proportional relationships to solve multistep ratio and percent problems		✔			