6th Science Pacing Guide 19-20

2.0 Target	3.0 Target	4.0 Target	T1	T2	T3
Unit 1: Environmental Geoscience					
Recognize patterns exist in distribution of rocks and fossils, continental shapes, and seafloor structures.	**ESS2-3: Analyze and interpret data to develop a claim supported by evidence on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.**	Analyze data on continental shapes and seafloor structure for past or to predict future continental movement over time.	X		
Describes the effects of resource availability on organisms and populations in an ecosystem, however, lacks evidence to support claim.	**LS2-1: Analyze and interpret data to develop a claim supported by evidence on the effects of resource availability on organisms and populations of organisms in an ecosystem.**	Analyze and interpret multiple sources of data to make a claim about how a system is affected if a new component is introduced in an ecosystem.	X		
Unit 2: Chemistry in Action					
Demonstrates developing understanding of models that describe the atomic composition of simple molecules.	**PS1-1: Develop models to describe the atomic composition of simple molecules and extended structures.**	Create a model to describe the atomic composition of a complex molecule.	X		
Determine whether an experiment is an exothermic or endothermic process.	**PS1-6: Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.***	Analyze whether a real world example represents an endothermic or an exothermic reaction.		X	
Define the law of conservation of mass.	**PS1-5: Develop and use a model, with written explanation, to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.**	Explain the law of conservation of mass using a balanced chemical equation.		X	
Unit 3: Cycles of Matter					
Demonstrates developing understanding of the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.	**LS1-6 Construct a written scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.**	Interprets and analyzes data in order to explain factors that alters the rate of photosynthesis and/or flow of energy into and out of organisms.		X	
Identify elements key to the cycling of matter and the flow of energy between living and nonliving parts of an ecosystem.	**LS2-3: Develop a model, with written explanation, to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.**	Explain how disruptions in the cycling of matter and/or the flow of energy impact the health of an ecosystem.			X
Unit 4: Energy All Around Us					
Explain the difference between potential and kinetic energy.	**PS3-5: Construct, use, and present oral or written arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.**	Provide a real world example, explaining the energy conversion occurring and what has been done to make it more efficient.			X
Describe the difference between minimizing and maximizing thermal energy transfer.	**PS3-3: Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer, and explain how the principles aided in the design and construction of the device.**	Explain how thermal energy transfer occurs using a real world example.			X
Unit 5: Science Literacy					
See Rubric	**Read closely to determine the central idea of the text and make logical inferences; cite specific textual evidence when writing or speaking to support conclusions drawn from texts.**	**Does Not Extend**	X	X	
See Rubric	**Determine the meaning of symbols, key terms, and scientific words and phrases as they are used in a specific scientific or technical texts.**	**Does Not Extend**	X		
See Rubric	**Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).**	**Does Not Extend**		X	X