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7th Grade Science Pacing Guide 18-19

2.0 TARGET	3.0 TARGET	4.0 TARGET	Cannot be extended	T1	T2	T3
Unit 1: Life's Characteristics						
Describe the the function(s) of most parts of the cell.	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.	Thoroughly describes how two or more organelles interact to contribute to a specific function in the cell.		X		
Identify environmental and genetic factors that influence the growth of organisms.	LS1-5: Construct a written scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	Explain the process of how genes are expressed based on activity at the genetic level.		X		
Unit 2: Genetic Variation						
Recognize that a mutation impacts the structure of a DNA molecule	LS3-1: Develop and use a model to describe why mutations may result in harmful, beneficial, or neutral effects to the structure and function of an organism.	Describe how cells screen for mutations and mechanisms that occur when a mutation is found.		X		
Identify reproductive strategies used by both plant structure and animal behaviors that affect successful reproduction.	LS1-4: Develop and support a claim based on empirical evidence and scientific reasoning to prove how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.	Describe how an outlying factor or change in the environment would affect the probability of successful reproduction of a plant or animal population.			X	
Unit 3: Earth Within the Universe						
Classify examples of wave motion using vocabulary terms like reflection, absorption, refraction	PS4-2: Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.	Explain why waves travel differently through various materials.			X	
Identify the geoscience processes that change the Earth's surface feature over time.	ESS2-2: Construct a written explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.	Explain how human impact have affected geoscience processes and its' continued impact over time.			X	
Recognize the cyclic patterns observed throughout the solar system--lunar phases, eclipses of the sun and moon, and seasons	ESS1-1: Develop and use a model, with written explanation, of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.	Use a model to explain the cyclic patterns of other celestial bodies in the solar system.				X
Unit 4: Forces						
Conduct an investigation and write an evaluation of the experimental design, providing weak or no evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.	PS2-5: Conduct an investigation and write an evaluation of the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact. **	Explain how organisms have utilized or impacted Earth's natural fields.				X
Provide an explanation that the change in an object's motion depends on the sum of the force on the object and the mass of the object.	PS2-2: Plan an investigation, in writing, to provide evidence that the change in an object's motion depends on the sum of the force on the object and the mass of the object.	Explain how other variables will effect the planned investigation.				X
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.	Not Extendable	X	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).	Not Extendable	X	X	X	
See Rubric	Compare and/or contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	Not Extendable	X		X	X