



5th Grade Science Pacing Guide 2020-2021

4.0 Target	3.0 Target	2.0 Target	Does Not Extend			
			T1	T2	T3	
Changes in Matter						
<p>Knowing that the law of conservation of matter is true, students explain why the weight of initial materials in an experiment weighs more than the final substance/product.</p> <p>AND</p> <p>Students can measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.</p> <p>AND</p> <p>Students explain why the total weight of matter is conserved using content specific vocabulary such as conserve, heating, cooling, matter, mixing, dissolving, and reaction.</p>	<p>Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.</p>	<p>Students make errors in measuring and graphing quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.</p> <p>AND</p> <p>Students accurately explains why the total weight of matter is conserved or is unable to use content specific vocabulary such as conserve, heating, cooling, matter, mixing, dissolving, and reaction.</p>				
N/A	<p>Conduct an investigation to determine whether the mixing of two or more substances results in new substances.</p>	<p>Students conduct an investigation and inaccurately determines whether the mixing of two or more substances results in new substances.</p> <p>AND</p> <p>Student inaccurately uses specific vocabulary (state change, gas formation, solid formation, heating, cooling, temperature change, light, etc.) to explain how they know if a new substance was created.</p>	X	x		x
Earth Systems						
<p>Create and investigate a plan that explains how one can protect the resources and environment.</p> <p>AND</p> <p>Student is able to use resources to learn and explain how individual communities are protecting the Earth's resources and environment.</p> <p>AND</p> <p>In the explanation, students use domain specific vocabulary such as Earth systems, conserve, reduce, reuse, recycle, and protect.</p>	<p>Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</p>	<p>Student struggles to use resources to provide examples of how individual communities are protecting the Earth's resources and environment. Explanations are limited or not fully explained.</p> <p>AND</p> <p>Students uses limited domain specific vocabulary and/or vocabulary doesn't properly support their explanation.</p>				x
Earth, the Moon and the Stars						
N/A	<p>Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p>	<p>Students may make multiple errors in representing data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p> <p>AND</p> <p>Students explanations of why we see different stars throughout the year using evidence is weak and lacking specific vocabulary.</p>	X			x
Energy						
<p>-Identify the effects of a disruption to the flow of energy if one element of the food chain model were changed or removed.</p> <p>AND</p> <p>-Uses a model to describe that energy in animal's food was once energy from the sun.</p> <p>AND</p> <p>-Model is correctly labeled</p> <p>AND</p> <p>-Arrows in model correctly show flow of energy</p> <p>AND</p> <p>-describes verbally or in writing the movement of energy</p>	<p>Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.</p>	<p>-Attempts to use a model to describe that energy in animal's food was once energy from the sun.</p> <p>AND</p> <p>-Model is incorrectly labeled</p> <p>OR</p> <p>-Arrows in model incorrectly show flow of energy</p> <p>OR</p> <p>-Attempts to describe verbally or in writing the movement of energy</p>				x
<p>Written or verbal explanation includes a well supported inference of what might happen to the movement of matter (air, water, decomposed materials in soil) when the ecosystem changes. (human cause, natural disasters, climate change).</p> <p>AND</p> <p>-Develop a model</p> <p>-Use labeled arrows to show the correct movement of matter among plants, animals, decomposers, and the environment.</p> <p>-Plants, animals and decomposers are correctly labeled</p> <p>-Oxygen, carbon dioxide and carbon are correctly labeled.</p>	<p>Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p>	<p>-Develop a model</p> <p>-Use labeled arrows to show the correct movement of matter among plants, animals, decomposers, and the environment.</p> <p>-Plants, animals and decomposers are correctly labeled</p> <p>-Oxygen, carbon dioxide and carbon are correctly labeled.</p> <p>4 errors in their model.</p>				x