

5th Grade Science Placemat

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Science				
Living Systems				
<p>3.LS3.B1 - Variations in charact. among same species are advantageous in surviving/mating Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving and finding mates. (NGSS 3.LS4.2)</p>		<p>4.LS1.A.1 - Plants/animals have internal/external structures to support life and behavior Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and plant reproduction (NGSS 4.LS1.1)</p>		
<p>5.PS3.D.1 - Use models to describe that energy stored in food was once energy from the sun Use models to describe that energy stored in food was once energy from the sun. (NGSS 5.PS3.1)</p>	<p>5.LS1.A.1 - Compare/contrast major organs/organ systems for vertebrate classes Compare and contrast the major organs/organ systems that perform similar functions for animals belonging to different vertebrate classes.</p>	<p>5.LS1.C.1 -Plants get the materials they need for growth chiefly from air and water Support an argument that plants get the materials they need for growth chiefly from air and water. (NGSS 5.LS1.1)</p>	<p>5.LS2.B1 - Describe the movement of matter among plants/animals/decomposers/environment Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (NGSS 5.LS2.1)</p>	
Sun, Moon, and Stars				
<p>5.ESS1.A.1 - Distances from Earth affects the brightness of the sun compared to other stars Support an argument that relative distances from Earth affect the apparent brightness of the sun compared to the stars. (NGSS 5.ESS1.1)</p>	<p>5.ESS1.B.1 - Observe different seasons to relate the amount of daylight to the time of year Make observations during different seasons to relate the amount of daylight to the time of year.</p>	<p>5.ESS1.B.2 - Graph to reveal changes of shadows, day & night, appearance of stars in the sky 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. (NGSS 5.ESS1.2)</p>	<p>5.PS4.A.1 - Objects can be seen only when light's reflected or when they produce their own Develop a model to describe that objects can be seen only when light is reflected off them or when they produce their own light.</p>	<p>5.PS2.B.1 - The gravitational force exerted by Earth is directed toward the planet's center Support an argument that the gravitational force exerted by Earth on objects is directed toward the planet's center. (NGSS 5.PS2.1)</p>
Mass, Matter, Mixtures, and Solutions				
<p>5.PS1.A.1 - Develop a model to describe that matter's made of particles too small to be seen Develop a model to describe that matter is made of particles too small to be seen. (NGSS 5.PS1.1)</p>	<p>5.PS1.A.2 - Regardless of the type of change, the total weight of matter is conserved 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. (NGSS 5.PS1.2)</p>	<p>5.PS1.B.1 - Investigate to separate the components of a mix/sol. by physical properties Plan and conduct investigations to separate the components of a mixture/solution by their physical properties. (NGSS 5.PS1.3 - but we go deeper)</p>	<p>5.PS1.B.2 - Conduct lab to determine whether combining of multi items result in new items Conduct an investigation to determine whether the combining of two or more substances results in new substances. (NGSS 5.PS1.4)</p>	
Design Inquiry				
<p>5.ETS1.A.1 - Investigate situations that can be solved with a new or improved tool Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. (ETS1.1)</p>	<p>5.ETS1.B.1 - Use multiple solutions to a problem based on how it meets the needs of a problem Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (ETS1.2)</p>		<p>5.ETS1.C.1 - Carry out tests which variables/failure pts are controlled to improve prototypes Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (ETS1.3)</p>	