

**FIFTH GRADE  
Science  
PRIORITY STANDARDS**

**Earth & Space Science**

**5.ESS1 Earth's Place in the Universe**

5.ESS1.1	<p><b>Support an argument that the apparent brightness of the sun and stars is due to their relative distances from Earth.</b>            [Clarification Statement: Emphasis is to obtain information and construct an explanation on how the scale of the distance to objects giving off light affects the brightness of objects (e.g. nearby streetlights appear bigger and brighter than distant streetlights).]            [Assessment Boundary: Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, and stage).]</p>
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**5.ESS2 Earth's Systems**

5.ESS2.1	<p><b>Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.^</b>            [Clarification Statement: Examples could include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system.]            [Assessment Boundary: Assessment is limited to the interactions of two systems at a time.]</p>
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**5.ESS3 Earth and Human Activity**

5.ESS3.1	<p><b>Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.^</b>            [Clarification Statement: Emphasis is on gathering data to construct an explanation on how and why the selected activity protects the Earth's resources and environment for the identified region or community (e.g. agriculture practices, solar or wave energy).]            [Assessment Boundary: Assessment is limited to describing how communities use science ideas to protect Earth's resources and environment and does not focus on cause and effect of human impacts on the environment.]</p>
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**Engineering, Technology, and the Application of Science**

**5.ETS1 Engineering Design**

5.ETS1.3	<p><b>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.</b>            [Clarification Statement: Emphasis is on identifying the purpose of the investigation and specific evidence to collect, testing one criteria or constraint at a time, and record the data accordingly.]            [Assessment Boundary: Assessment is limited to proposing different solutions based on evidence collected and to determine which is best based on the criteria and the constraints.]</p>
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**Life Science**

**5.LS2 Ecosystems: Interactions, Energy, and Dynamics**

5.LS1.2	<p><b>Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.^</b>            [Clarification Statement: Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth.]            [Assessment Boundary: Assessment does not include molecular explanations.]</p>
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**Physical Science**

**5.PS1 Matter and Its Interactions**

5.PS1.1	<p><b>Develop a model to describe that matter is made of particles too small to be seen.^</b>            [Clarification Statement: Examples of evidence could include adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, and evaporating salt water.]            [Assessment Boundary: Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles.]</p>
5.PS1.2	<p><b>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.</b>            [Clarification Statement: Examples of reactions or changes could include phase changes, dissolving, and mixing that forms new substances.]            [Assessment Boundary: Assessment does not include distinguishing mass and weight.]</p>