**Main Criteria:** Next Generation Science Standards (NGSS)
**Secondary Criteria:** California Content Standards, Pennsylvania Core and Academic Standards
**Subject:** Science
**Grade:** 5

**Correlation Options:** Show All

| Main Criteria Standards | California Content Standards | Pennsylvania Core and Academic Standards |
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| **Science** | | |
| **Grade 5** | | |
| PERFORMANCE EXPECTATION: **5-PS1-1.** - Develop a model to describe that matter is made of particles too small to be seen. | **5-PS1-1.** - Develop a model to describe that matter is made of particles too small to be seen. | |
| PERFORMANCE EXPECTATION: **5-PS1-2.** - 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. | **5-PS1-2.** - 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. | |
| PERFORMANCE EXPECTATION: **5-PS1-3.** - Make observations and measurements to identify materials based on their properties. | **5-PS1-3.** - Make observations and measurements to identify materials based on their properties. | |
| PERFORMANCE EXPECTATION: **5-PS1-4.** - Conduct an investigation to determine whether the mixing of two or more substances results in new substances. | **5-PS1-4.** - Conduct an investigation to determine whether the mixing of two or more substances results in new substances. | |
| PERFORMANCE EXPECTATION: **5-PS2-1.** - Support an argument that the gravitational force exerted by Earth on objects is directed down. | **5-PS2-1.** - Support an argument that the gravitational force exerted by Earth on objects is directed down. | |
| PERFORMANCE EXPECTATION: **5-PS3-1.** - 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. | **5-LS1-1.** - Support an argument that plants get the materials they need for growth chiefly from air and water.<br>**5-LS2-1.** - Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. | **3.1.5.A2.** - Describe how life on earth depends on energy from the sun. |

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| | **5-PS3-1.** - 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. | |
| PERFORMANCE EXPECTATION: **5-LS1-1.** - Support an argument that plants get the materials they need for growth chiefly from air and water. | **5-LS1-1.** - Support an argument that plants get the materials they need for growth chiefly from air and water.<br>**5-PS3-1.** - 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. | **4.1.5.A.** - Describe the roles of producers, consumers, and decomposers within a local ecosystem.<br>**4.4.5.A.** - Explain why animal production is dependent upon plant production.<br><br>**4.4.5.C.** - Investigate the factors influencing plant and animal growth. (e.g., soil, water, nutrients, and light) |
| PERFORMANCE EXPECTATION: **5-LS2-1.** - Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. | **5-LS2-1.** - Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.<br>**5-PS3-1.** - 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. | **4.1.5.C.** - Describe different food webs including a food web containing humans.<br><br>**4.2.5.A.** - Explain the water cycle. |
| PERFORMANCE EXPECTATION: **5-ESS1-1.** - Support an argument that the apparent brightness of the sun and stars is due to their relative distances from Earth. | **5-ESS1-1.** - Support an argument that the apparent brightness of the sun and stars is due to their relative distances from Earth. | |
| PERFORMANCE EXPECTATION: **5-ESS1-2.** - 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. | **5-ESS1-2.** - 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. | **3.3.5.B1.** - Provide evidence that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours. |
| PERFORMANCE EXPECTATION: **5-ESS2-1.** - Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. | **5-ESS2-1.** - Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. | **3.3.5.A1.** - Describe how landforms are the result of a combination of destructive forces such as erosion and constructive erosion, deposition of sediment, etc. |

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| | **5-ESS2-2.** - Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. | **3.3.5.A4.** - Explain the basic components of the water cycle.<br><br>**3.3.5.A5b.** - Explain how the cycling of water, both in and out of the atmosphere, has an effect on climate.<br>**4.2.5.A.** - Explain the water cycle. |
| PERFORMANCE EXPECTATION: **5-ESS2-2.** - Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. | **5-ESS2-1.** - Develop a model using an example to describe ways the geosphere, biosphere, [illegible]<br>**5-ESS2-2.** - Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. | |
| PERFORMANCE EXPECTATION: **5-ESS3-1.** - Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. | **5-ESS3-1.** - Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. | **3.4.5.B2.** - Describe how waste may be appropriately recycled or disposed of to prevent unnecessary harm to the environment.<br><br>**4.5.5.D.** - Explain how different items are recycled and reused. |
| PERFORMANCE EXPECTATION: **3-5-ETS1-1.** - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. | **3-5-ETS1-1.** - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.<br>**3-5-ETS1-2.** - 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. | **3.4.5.A2.** - Understand that a subsystem is a system that operates as part of a larger system.<br><br>**3.4.5.C1.** - Explain how the design process is a purposeful method of planning practical solutions to problems.<br><br>**3.4.5.C2.** - Describe how design, as a dynamic process of steps, can be performed in different sequences and repeated. |
| PERFORMANCE EXPECTATION: **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of | **3-5-ETS1-1.** - Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. | **3.4.5.A2.** - Understand that a subsystem is a system that operates as part of a larger system. |

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| the problem. | **3-5-ETS1-2.** - 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.<br>**3-5-ETS1-3.** - 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. | **3.4.5.C1.** - Explain how the design process is a purposeful method of planning practical solutions to problems.<br>**3.4.5.C2.** - Describe how design, as a dynamic process of steps, can be performed in different sequences and repeated.<br>**3.4.5.D1.** - Identify ways to improve a design solution. |
| PERFORMANCE EXPECTATION: **3-5-ETS1-3.** - 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. | **3-5-ETS1-2.** - 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.<br>**3-5-ETS1-3.** - 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. | **3.4.5.D1.** - Identify ways to improve a design solution.<br>**SI.3.** - Design and conduct a scientific investigation and understand that current scientific knowledge guides scientific investigations. |