

Grade 5

Adopted 2022

Physical Science DOMAIN

Structure and Properties of Matter

1. Make observations and measurements to identify materials based on their properties. **S.5.1**
2. Develop a model to describe that matter is made of particles too small to be seen. **S.5.2**
3. 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. **S.5.3**
4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances. **S.5.4**

Life Science DOMAIN

Matter and Energy in Organisms and Ecosystems

5. Support an argument that plants get the materials they need for growth chiefly from air and water. **S.5.5**
6. Use models to describe that energy in animals' food (used for body repair, growth, motion, and maintenance of body warmth) originated as energy from the sun. **5.5.6**
7. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. **S.5.7**

Earth and Space Science DOMAIN

Earth's Systems

8. 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. **S.5.8**
9. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. **5.5.9**
10. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. **5.5.10**
11. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. **5.5.11**
12. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on the human population. **S.5.12**

Space Systems: Stars and the Solar System

13. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. 5.5.13
 14. 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. 5.5.14
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**Engineering,
Technology, and
Applications of
Science** DOMAIN

Engineering Design

15. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost. ED5.5.15
16. 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. ED5.5.16
17. 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. EDS.5.17