

# Grade 6

Adopted 2018

## Matter and Its Interactions

**SES-MS-PS1-1.** Model how simple parts can be put together to make more complex structures. [SES-MS-PS1-1](#)

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**SES-MS-PS1-2.** Make observations of substances interacting to determine if a chemical reaction has occurred. [SES-MS-PS1-2](#)

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**SES-MS-PS1-3.** Distinguish between natural and synthetic materials. [SES-MS-PS1-3](#)

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**SES-MS-PS1-4.** Describe the relationship between changes in temperature, kinetic energy, and changes in states of matter for water. [SES-MS-PS1-4](#)

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**SES-MS-PS1-5.** Show that the amount of a substance used in a reaction does not change even if the new substance looks different. [SES-MS-PS1-5](#)

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**SES-MS-PS1-6.** Participate in a design project to keep thermal energy in a substance or container. [SES-MS-PS1-6](#)

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## Motion and Stability: Forces and Interactions

**SES-MS-PS2-1.** Investigate, and describe, the direction of motion of two colliding objects of equal and of unequal masses. [SES-MS-PS2-1](#)

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**SES-MS-PS2-2.** Incorporated into SES-MS-PS2-1 by including equal and unequal mass. [SES-MS-PS2-2](#)

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**SES-MS-PS2-3.** Ask questions about the strength of magnetic forces. [SES-MS-PS2-3](#)

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**SES-MS-PS2-4.** Use surroundings and information provided to predict the effects of gravity. [SES-MS-PS2-4](#)

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**SES-MS-PS2-5.** Investigate an object that has a static charge. [SES-MS-PS2-5](#)

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## Energy

**SES-MS-PS3-1.** Identify changes in kinetic energy on a labeled diagram. [SES-MS-PS3-1](#)

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**SES-MS-PS3-2.** Identify differing amounts of potential energy on a labeled diagram. [SES-MS-PS3-2](#)

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**SES-MS-PS3-3.** Incorporated into SES-MS-PS1-6. [SES-MS-PS3-3](#)

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**SES-MS-PS3-4.** Incorporated into SES-MS-PS1-4. [SES-MS-PS3-4](#)

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**SES-MS-PS3-5.** Demonstrate how kinetic energy is transferred between objects. [SES-MS-PS3-5](#)

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**Waves and Their Applications in Technologies for Information Transfer**

**SES-MS-PS4-1.** Identify larger amplitude waves as having more energy. [SES-MS-PS4-1](#)

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**SES-MS-PS4-2.** Describe how light waves behave when interacting with various materials. [SES-MS-PS4-2](#)

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**SES-MS-PS4-3.** Select an electronic means and a non-digital means of sending information. [SES-MS-PS4-3](#)

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**From Molecules to Organisms: Structures & Processes**

**SES-MS-LS1-1.** Identify the difference between living and nonliving things. [SES-MS-LS1-1](#)

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**SES-MS-LS1-2.** Explore, and identify, the structure and function of major parts of a cell. [SES-MS-LS1-2](#)

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**SES-MS-LS1-3.** Model that a body system is made up of interacting organs. [SES-MS-LS1-3](#)

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**SES-MS-LS1-4.** Identify the characteristics of plants and behaviors of animals that support successful reproduction. [SES-MS-LS1-4](#)

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**SES-MS-LS1-5.** Identify environmental conditions needed for successful growth of organisms. [SES-MS-LS1-5](#)

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**SES-MS-LS1-6.** Model what a plant uses, what it creates, and what the plant releases during photosynthesis. [SES-MS-LS1-6](#)

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**SES-MS-LS1-7.** Recognize that food is used to produce energy for organisms to live. [SES-MS-LS1-7](#)

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**SES-MS-LS1-8.** Identify situations which require a reactive behavior for survival. [SES-MS-LS1-8](#)

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**Ecosystems: Interactions, Energy, and Dynamics**

**SES-MS-LS2-1.** Recognize the effects of resource availability on individuals and on populations. [SES-MS-LS2-1](#)

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**SES-MS-LS2-2.** Identify ways that organisms interact with each other within an ecosystem. [SES-MS-LS2-2](#)

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**SES-MS-LS2-3.** Explain that energy moves among living and non-living parts of an ecosystem. [SES-MS-LS2-3](#)

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**SES-MS-LS2-4.** Recognize how changes to an ecosystem affect populations. [SES-MS-LS2-4](#)

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**SES-MS-LS2-5.** Identify an action that maintains or improves ecosystems and biodiversity. SES-MS-LS2-5

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**Heredity: Inheritance and Variation of Traits**

**SES-MS-LS3-1.** Explain that organisms have differences in their traits that can affect their survival. SES-MS-LS3-1

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**SES-MS-LS3-2.** Students will investigate, and identify, features of living organisms that come from their parents. SES-MS-LS3-2

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**Biological Evolution: Unity & Diversity**

**SES-MS-LS4-1.** Compare fossils with plants and animals that exist today. SES-MS-LS4-1

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**SES-MS-LS4-2.** Identify anatomical similarities between modern organisms and fossil organisms. SES-MS-LS4-2

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**SES-MS-LS4-4.** Incorporated in SES-MS-LS3-1. SES-MS-LS4-4

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**SES-MS-LS4-5.** Identify desirable traits that can be passed on to offspring. SES-MS-LS4-5

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**SES-MS-LS4-6.** Demonstrate understanding that natural selection changes distribution of traits in a population over time. SES-MS-LS4-6

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**Earth's Place in the Universe**

**SES-5-ESS1-2.** Investigate changes in shadows and/or daily changes in day and night. SES-5-ESS1-2

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**SES-MS-ESS1-1.** Model the Earth-sun-moon positions for lunar phases, eclipses of the sun and moon, and seasons. SES-MS-ESS1-1

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**SES-MS-ESS1-2.** Model that the solar system is a collection of many varied objects, held together by gravity, that move in predictable ways. SES-MS-ESS1-2

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**SES-MS-ESS1-3.** Identify categories of solar system objects (e.g., planets, meteors, asteroids, comets, and moon). SES-MS-ESS1-3

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**SES-MS-ESS1-4.** Organize, or model, evidence from rocks and rock strata within the geologic time scale to demonstrate Earth's history. SES-MS-ESS1-4

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**Earth's Systems**

**SES-MS-ESS2-1.** Model the cycling processes involved in the creation of various rock forms. SES-MS-ESS2-1

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**SES-MS-ESS2-2.** Identify geoscience processes that can change Earth's surface over short time scales or long time scales. SES-MS-ESS2-2

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**SES-MS-ESS2-3.** Compare locations of fossils, rocks, continental shapes, and structures as evidence of past plate motions. SES-MS-ESS2-3

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**SES-MS-ESS2-4.** Identify the processes involved in the cycling of Earth's water. [SES-MS-ESS2-4](#)

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**SES-MS-ESS2-5.** Utilize data to compare weather conditions in different locations on the same day. [SES-MS-ESS2-5](#)

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**SES-MS-ESS2-6.** Identify how latitude and altitude influence climate. [SES-MS-ESS2-6](#)

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## Earth and Human Activity

**SES-MS-ESS3-1.** Identify how the levels of Earth's resources can change over time. [SES-MS-ESS3-1](#)

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**SES-MS-ESS3-2.** Recognize that some natural hazards (e.g., volcanic eruptions, severe weather) can be predicted while others are not currently predictable. [SES-MS-ESS3-2](#)

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**SES-MS-ESS3-3.** Model ways that humans can minimize their impact on the environment. [SES-MS-ESS3-3](#)

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**SES-MS-ESS3-4.** Incorporated into **SES-MS-ESS3-1.** [SES-MS-ESS3-4](#)

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**SES-MS-ESS3-5.** Recognize natural processes, and human activities, that may impact global temperatures. [SES-MS-ESS3-5](#)

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## Engineering, Technology, & Applications of Science

**SES-MS-ETS1-1.** Describe a problem that needs to be solved. [SES-MS-ETS1-1](#)

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**SES-MS-ETS1-2.** Evaluate solutions to given problems. [SES-MS-ETS1-2](#)

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**SES-MS-ETS1-3.** Analyze results from the testing of possible solutions. [SES-MS-ETS1-3](#)

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**SES-MS-ETS1-4.** Create an object or tool from materials provided. [SES-MS-ETS1-4](#)

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## Engineering, Technology, Science, and Society

**SES-MS-ETS2-1.** Ask questions about common household, or classroom, appliances. [SES-MS-ETS2-1](#)

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**SES-MS-ETS2-2.** Identify consequences of human choices. [SES-MS-ETS2-2](#)

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