Wyoming Science

Grades 7, 8

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
	SES-MS-PS1-2.	**Make observations of substances interacting to determine if a chemical reaction has occurred.** SES-MS-PS1-2
	SES-MS-PS1-3.	**Distinguish between natural and synthetic materials.** SES-MS-PS1-3
	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
	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
	SES-MS-PS1-6.	**Participate in a design project to keep thermal energy in a substance or container.** SES-MS-PS1-6
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
	SES-MS-PS2-2.	**Incorporated into SES-MS- PS2-1 by including equal and unequal mass.** SES-MS-PS2-2
	SES-MS-PS2-3.	**Ask questions about the strength of magnetic forces.** SES-MS-PS2-3
	SES-MS-PS2-4.	**Use surroundings and information provided to predict the effects of gravity.** SES-MS-PS2-4
	SES-MS-PS2-5.	**Investigate an object that has a static charge.** SES-MS-PS2-5
Energy	**SES-MS-PS3-1.**	**Identify changes in kinetic energy on a labeled diagram.** SES-MS-PS3-1
	SES-MS-PS3-2.	**Identify differing amounts of potential energy on a labeled diagram.** SES-MS-PS3-2
	SES-MS-PS3-3.	**Incorporated into SES-MS-PS1-6.** SES-MS-PS3-3
	-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
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
	SES-MS-PS4-2.	**Describe how light waves behave when interacting with various materials.** SES-MS-PS4-2
	SES-MS-PS4-3.	**Select an electronic means and a non-digital means of sending information.** SES-MS-PS4-3
From Molecules to Organisms: Structures & Processes	**SES-MS-LS1-1.**	**Identify the difference between living and nonliving things.** SES-MS-LS1-1
	SES-MS-LS1-2.	**Explore, and identify, the structure and function of major parts of a cell.** SES-MS-LS1-2
	SES-MS-LS1-3.	**Model that a body system is made up of interacting organs.** SES-MS-LS1-3
	SES-MS-LS1-4.	**Identify the characteristics of plants and behaviors of animals that support successful reproduction.** SES-MS-LS1-4
	SES-MS-LS1-5.	**Identify environmental conditions needed for successful growth of organisms.** SES-MS-LS1-5
	SES-MS-LS1-6.	**Model what a plant uses, what it creates, and what the plant releases during photosynthesis.** SES-MS-LS1-6
	SES-MS-LS1-7.	**Recognize that food is used to produce energy for organisms to live.** SES-MS-LS1-7
	SES-MS-LS1-8.	**Identify situations which require a reactive behavior for survival.** SES-MS-LS1-8
Ecosystems: Interactions, Energy, and Dynamics	**SES-MS-LS2-1.**	**Recognize the effects of resource availability on individuals and on populations.** SES-MS-LS2-1
	SES-MS-LS2-2.	**Identify ways that organisms interact with each other within an ecosystem.** SES-MS-LS2-2
	SES-MS-LS2-3.	**Explain that energy moves among living and non-living parts of an ecosystem.** SES-MS-LS2-3
	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
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
	SES-MS-LS3-2.	**Students will investigate, and identify, features of living organisms that come from their parents.** SES-MS-LS3-2
Biological Evolution: Unity & Diversity	**SES-MS-LS4-1.**	**Compare fossils with plants and animals that exist today.** SES-MS-LS4-1
	SES-MS-LS4-2.	**Identify anatomical similarities between modern organisms and fossil organisms.** SES-MS-LS4-2
	SES-MS-LS4-4.	**Incorporated in SES-MS-LS3-1.** SES-MS-LS4-4
	SES-MS-LS4-5.	**Identify desirable traits that can be passed on to offspring.** SES-MS-LS4-5
	SES-MS-LS4-6.	**Demonstrate understanding that natural selection changes distribution of traits in a population over time.** SES-MS-LS4-6
Earth's Place in the Universe	**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
	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
	SES-MS-ESS1-3.	**Identify categories of solar system objects (e.g., planets, meteors, asteroids, comets, and moon).** SES-MS-ESS1-3
	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
Earth's Systems	**SES-MS-ESS2-1.**	**Model the cycling processes involved in the creation of various rock forms.** SES-MS-ESS2-1
	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
	SES-MS-ESS2-3.	**Compare locations of fossils, rocks, continental shapes, and structures as evidence of past plate motions.** SES-MS-ESS2-3
	[illegible]-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
	SES-MS-ESS2-6.	**Identify how latitude and altitude influence climate.** SES-MS-ESS2-6
Earth and Human Activity	**SES-MS-ESS3-1.**	**Identify how the levels of Earth's resources can change over time.** SES-MS-ESS3-1
	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
	SES-MS-ESS3-3.	**Model ways that humans can minimize their impact on the environment.** SES-MS-ESS3-3
	SES-MS-ESS3-4.	**Incorporated into SES-MS-ESS3-1.** SES-MS-ESS3-4
	SES-MS-ESS3-5.	**Recognize natural processes, and human activities, that may impact global temperatures.** SES-MS-ESS3-5
Engineering, Technology, & Applications of Science	**SES-MS-ETS1-1.**	**Describe a problem that needs to be solved.** SES-MS-ETS1-1
	SES-MS-ETS1-2.	**Evaluate solutions to given problems.** SES-MS-ETS1-2
	SES-MS-ETS1-3.	**Analyze results from the testing of possible solutions.** SES-MS-ETS1-3
	SES-MS-ETS1-4.	**Create an object or tool from materials provided.** SES-MS-ETS1-4
Engineering, Technology, Science, and Society	**SES-MS-ETS2-1.**	**Ask questions about common household, or classroom, appliances.** SES-MS-ETS2-1
	SES-MS-ETS2-2.	**Identify consequences of human choices.** SES-MS-ETS2-2