Missouri Science

Grade 3

Adopted 2016

Matter and Its Interactions PS1

A. Structure and Properties of Matter PS1.A

A. Predict and investigate that water can change from a liquid to a solid (freeze), and back again (melt), or from a liquid to a gas (evaporation), and back again (condensation) as the result of temperature changes. 3.PS1.A

B. Types of Interactions of Matter PS1.B

B. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. 3.PS1.B

Motion and Stability: Forces and Interactions PS2

B. Types of Interaction PS2.B

B. Plan and conduct investigations to determine the cause and effect relationship of electric or magnetic interactions between two objects not in contact with each other. 3.PS2.B

From Molecules to Organisms: Structure and Processes LS1

A. Structure and Function LS1.A

A. Construct an argument with evidence that in a particular ecosystem some organisms -- based on structural adaptations or behaviors -- can survive well, some survive less well, and some cannot survive at all. 3.LS1.A

B. Growth and Development of Organisms LS1.B

B. Develop a model to compare and contrast observations on the life cycle of different plants and animals. 3.LS1.B

Heredity: Inheritance and Variation of Traits LS3

A. Inheritance of Traits LS3.A

A. Construct scientific arguments to support claims that some characteristics of organisms are inherited from parents and some are influenced by the environment. 3.LS3.A

B. Natural Selection LS3.B

B. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving and finding mates. 3.LS3.B

C. Adaptation LS3.C

C. Construct an argument with evidence that in a particular ecosystem some organisms -- based on structural adaptations or behaviors -- can survive well, some survive less well, and some cannot. 3.LS3.C

D. Biodiversity and Humans LS3.D

D. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. 3.LS3.D

Earth's Systems ESS2

D. Weather and Climate ESS2.D

a. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. 3.ESS2.D.A

b. Obtain and combine information to describe climates in different regions of the world. 3.ESS2.D.B

Earth and Human Activity ESS3

B. Natural Hazards ESS3.B

B. Make a claim about the merit of an existing design solution (e.g. levies, tornado shelters, sea walls, etc.) that reduces the impacts of a weather-related hazard. 3.ESS3.B

Engineering Design ETS1

A. Defining and Delimiting Engineering Problems ETS1.A

A. 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.ETS1.A

B. Developing Possible Solutions ETS1.B

B. 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.ETS1.B

C. Optimizing the Solution Process ETS1.C

C. 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.ETS1.C