North Dakota Science

Grade 5

Adopted 2019

Energy	**5-PS3-1.**	**Use models to describe how energy from the sun is converted into food (used for body repair, growth, motion, and to maintain body warmth).** 5-PS3-1
From Molecules to Organisms: Structures and Processes	**5-LS1-1.**	**Support an argument that plants get the materials they need for growth chiefly from air and water.** 5-LS1-1
Earth's Systems	**5-ESS2-1.**	**Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.** 5-ESS2-1
	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-ESS2-2
Earth and Human Activity	**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
Engineering & Technology	**5-ET1-1.**	**Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.** 5-ET1-1
	5-ET1-2.	**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.** 5-ET1-2
	5-ET1-3.	**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.** 5-ET1-3
Earth's Place in the Universe	**5-ESS1-1.**	**Support an argument that the apparent brightness of the sun and stars is due to their relative distances from the Earth.** 5-ESS1-1
	5-ESS1-2.	**Construct a graph to reveal patterns of daily changes in length (metric) and direction of shadows, length of day and night, and the seasonal appearance of some stars in the night sky.** 5-ESS1-2

Matter & Its Interactions	**5-PS1-1.**	**Develop a model to describe that matter is made of particles too small to be seen.** 5-PS1-1
	5-PS1-2.	**Measure and graph metric quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total mass of matter is conserved.** 5-PS1-2
	5-PS1-3.	**Make observations and measurements to identify materials based on their properties.** 5-PS1-3
	5-PS1-4.	**Conduct an investigation to determine whether the mixing of two or more substances results in new substances.** 5-PS1-4
Ecosystems: Interactions, Energy, and Dynamics	**5-LS2-1.**	**Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.** 5-LS2-1