

# Middle School School Studies Essence Statements (2026)

## Matter and Energy

- 1** The student understands that matter can be classified according to its properties and matter is conserved in chemical changes that occur within closed systems. (Readiness Standard) 8.6
- 2** The student distinguishes between elements and compounds, classifies changes in matter, and understands the properties of solutions. (Readiness and Supporting Standard) 7.6
- 3** The student knows that matter is made of atoms, can be classified according to its properties, and can undergo changes. (Supporting Standard) 6.6

## Force, Motion, and Energy

- 1** The student understands the relationship between force and motion within systems. (Readiness Standard) 8.7
- 2** The student describes the cause-and-effect relationship between force and motion. (Supporting Standard) 7.7
- 3** The student knows the nature of forces and their role in systems that experience stability or change. (Supporting Standard) 6.7
- 4** The student knows how energy is transferred through waves. (Supporting Standard) 8.8
- 5** The student understands the behavior of thermal energy as it flows into and out of systems. (Supporting Standard) 7.8
- 6** The student knows that the total energy in systems is conserved through energy transfers and transformations. (Supporting Standard) 6.8

## Earth and Space

- 1** The student describes the characteristics of the universe and the relative scale of its components. (Readiness and Supporting Standard) 8.9
- 2** The student understands the patterns of movement, organization, and characteristics of components of our solar system. (Supporting Standard) 7.9
- 3** The student models the cyclical movements of the Sun, Earth, and Moon and describes their effects. (Supporting Standard) 6.9

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- 4** The student knows that interactions between Earth, ocean, and weather systems impact climate. (Readiness and Supporting Standard) 8.10
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- 5** The student understands the cause and effects of plate tectonics. (Readiness and Supporting Standard) 7.10
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- 6** The student understands the rock cycle and the structure of Earth. (Supporting Standard) 6.10
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- 7** The student understands how human activity can impact the hydrosphere. (Supporting Standard) 7.11
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**Organisms and  
Environments**

- 1** The student understands stability and change in populations and ecosystems. (Readiness and Supporting Standard) 8.12
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- 2** The student understands that ecosystems are dependent upon the cycling of matter and the flow of energy. (Supporting Standard) 7.12
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- 3** The student knows that interdependence occurs between living systems and the environment. (Supporting Standard) 6.12
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- 4** The student knows how cell functions support the health of an organism and how adaptation and variation relate to survival. (Readiness and Supporting Standard) 8.13
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- 5** The student knows how systems are organized and function to support the health of an organism and how traits are inherited. (Supporting Standard) 7.13
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- 6** The student knows that organisms have an organizational structure and variations can influence survival of populations. (Supporting Standard) 6.13
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