

# Grade 5

Adopted 2018

## Earth and Space Science

- 1. The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.** 5.ESS.1
- 2. The sun is one of many stars that exist in the universe.** 5.ESS.2
- 3. Most of the cycles and patterns of motion between the Earth and sun are predictable.** 5.ESS.3

## Life Science

- 1. Organisms perform a variety of roles in an ecosystem.** 5.LS.1
- 2. All of the processes that take place within organisms require energy.** 5.LS.2

## Physical Science

- 1. The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.** 5.PS.1
- 2. Light and sound are forms of energy that behave in predictable ways.** 5.PS.2

## Nature of Science (K-8)

### Scientific Inquiry, Practice and Applications

- All students must use these scientific processes with appropriate laboratory safety techniques to construct their knowledge and understanding in all science content areas. 35.NS.1
  1. Observe and ask questions about the world that can be answered through scientific investigations. 35.NS.1.1
  2. Design and conduct scientific investigations using appropriate safety techniques. 35.NS.1.2
  3. Use appropriate mathematics, tools and techniques to gather data and information. 35.NS.1.3
  4. Develop and communicate descriptions, models, explanations and predictions. 35.NS.1.4
  5. Think critically and ask questions about the observations and explanations of others. 35.NS.1.5
  6. Communicate scientific procedures and explanations. 35.NS.1.6
  7. Apply knowledge of science content to real-world challenges. 35.NS.1.7

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### **Science is a Way of Knowing**

2. Science assumes the universe is a vast single system in which basic laws are consistent. Natural laws operate today as they did in the past and they will continue to do so in the future. Science is both a body of knowledge that represents a current understanding of natural systems and the processes used to refine, elaborate, revise and extend this knowledge. **35.NS.2**
  1. Science is both a body of knowledge and processes to discover new knowledge. **35.NS.2.1**
  2. Science is a way of knowing about the world around us based on evidence from experimentation and observations. **35.NS.2.2**
  3. Science assumes that objects and events occur in consistent patterns that are understandable through measurement and observation. **35.NS.2.3**

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### **Science is a Human Endeavor**

3. Science has been, and continues to be, advanced by individuals of various races, genders, ethnicities, languages, abilities, family backgrounds and incomes. **35.NS.3**
  1. People from many generations and nations contribute to science knowledge. **35.NS.3.1**
  2. People of all cultures, genders, and backgrounds can pursue a career in science. **35.NS.3.2**
  3. Scientists often work in teams. **35.NS.3.3**
  4. Science affects everyday life. **35.NS.3.4**
  5. Science requires creativity and imagination. **35.NS.3.5**

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### **Scientific Knowledge is Open to Revision in Light of New Evidence**

4. Science is not static. Science is constantly changing as we acquire more knowledge. **35.NS.4**
  1. Science develops theories based on a body of scientific evidence. **35.NS.4.1**
  2. Science explanations can change based on new scientific evidence. **35.NS.4.2**