Next Generation Science Standards
Appendix H: Understanding the Scientific Enterprise: The Nature of Science in NGSS

Grades 3, 4, 5

Adopted 2013

Understandings about the Nature of Science

1. **Scientific Investigations Use a Variety of Methods** AH.1
    1. Science methods are determined by questions. 3-5.AH.1.1
    2. Science investigations use a variety of methods, tools, and techniques. 3-5.AH.1.2
2. **Scientific Knowledge is Based on Empirical Evidence** AH.2
    1. Science findings are based on recognizing patterns. 3-5.AH.2.1
    2. Scientists use tools and technologies to make accurate measurements and observations. 3-5.AH.2.2
3. **Scientific Knowledge is Open to Revision in Light of New Evidence** AH.3
    1. Science explanations can change based on new evidence. 3-5.AH.3.1
4. **Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena** AH.4
    1. Science theories are based on a body of evidence and many tests. 3-5.AH.4.1
    2. Science explanations describe the mechanisms for natural events. 3-5.AH.4.2
5. **Science is a Way of Knowing** AH.5
    1. Science is both a body of knowledge and processes that add new knowledge. 3-5.AH.5.1
    2. Science is a way of knowing that is used by many people. 3-5.AH.5.2
6. **Scientific Knowledge Assumes an Order and Consistency in Natural Systems** AH.6
    1. Science assumes consistent patterns in natural systems. 3-5.AH.6.1
    2. Basic laws of nature are the same everywhere in the universe. 3-5.AH.6.2
7. **Science is a Human Endeavor** AH.7
    1. Men and women from all cultures and backgrounds choose careers as scientists and engineers. 3-5.AH.7.1
    2. Most scientists and engineers work in teams. 3-5.AH.7.2
    3. Science affects everyday life. 3-5.AH.7.3
    4. Creativity and imagination are important to science. 3-5.AH.7.4

8. **Science Addresses Questions About the Natural and Material World.** AH.8
    1. Science findings are limited to what can be answered with empirical evidence. 3-5.AH.8.1