

IKM-Manning Curriculum Science Standards / Benchmarks / Indicators February 2008

Standards:

Students will demonstrate an understanding of unifying concepts and processes of science
Students will use the process of science inquiry
Students will demonstrate an understanding of the basic concepts and principles of physical science
Students will demonstrate an understanding of the basic concepts and principles of life science
Students will demonstrate an understanding of the basic concepts and principles of earth and space science
Students will demonstrate an understanding of connections and relationships between science and technology
Students will demonstrate an understanding of the relationship of science to personal, social, & environmental issues
Students will demonstrate an understanding of the history and nature of science

Course Benchmarks:

- 1.2.1 Demonstrate abilities necessary to do scientific inquiries (H, G, L, C)
- 1.3.1 Demonstrate an understanding of position and motion of objects (H, L, C)
- 1.4.1 Demonstrate an understanding of the characteristics of living things (H, L, C, G)
- 1.4.2 Demonstrate an understanding of the life cycles of organisms (H, L, C, G)
- 1.4.3 Demonstrate a knowledge of organisms and environments (H, L, C, G)
- 1.6.1 Demonstrate ability to use technology (H, G, L, C, T)
- 1.7.1 Demonstrate an understanding of the importance of good nutrition, exercise, sleep, and proper hygiene (H, L, G)

1st Grade

1.1 Unifying Concepts and Processes

This standard can be the focus of instruction at any grade level and taught in the context of the other Content Standards. The Unifying Concepts and Processes are:

*Systems, order, and organization
Evidence, models, and explanation
Constancy, change, and measurement
Evolution and equilibrium
Form and function*

1.2 Science as Inquiry

1.2.1 Demonstrate abilities necessary to do scientific inquiries (H, G, L, C)

- 1.2.1.A Guess or predict solution to problem
- 1.2.1.B Experiment to solve a problem
- 1.2.1.C Communicate the results of an experiment
- 1.2.1.D Uses the five senses in scientific inquiry

1.3 Physical Science Concepts

1.3.1 Demonstrate an understanding of position and motion of objects (H, L, C)

- 1.3.1.A Recognize that a force is a push or a pull and that the size of a change of motion is related to the strength of the push or the pull
- 1.3.1.B Observe and describe different kinds of movement
- 1.3.1.C Observe that the motion of objects can be changed by friction
- 1.3.1.D Recognize that wheels use axles to move
- 1.3.1.E Recognize that a magnet can create a force

1.4 Life Science Concepts

1.4.1 Demonstrate an understanding of the characteristics of living things (H, L, C, G)

- 1.4.1.A Discuss that living things have needs
- 1.4.1.B Observe, organize, and classify objects

1.4.2 Demonstrate an understanding of the life cycles of organisms (H, L, C, G)

- 1.4.2.A Observe life cycles of different living things

1.4.3 Demonstrate a knowledge of organisms and environments (H, L, C, G)

- 1.4.3.A Understand the relationships between various living things and their environments
- 1.4.3.B Recognize various characteristics of different habitats

1.5 Earth and Space Science Concepts

None at this grade level

1.6 Science and Technology

1.6.1 Demonstrate ability to use technology (H, G, L, C, T)

- 1.6.1.A Experience science through technology (software, Internet, balances, hand lenses, bug viewer, etc.)
- 1.6.1.B Explore the different ways various tools work

1.7 Science Through Personal and Social Perspectives

1.7.1 Demonstrate an understanding of the importance of good nutrition, exercise, sleep, and proper hygiene (H, L, G)

- 1.7.1.A Identify which foods constitute a healthy meal or snack
- 1.7.1.B Understand the importance of proper hygiene, including dental health
- 1.7.1.C Understand the importance of regular exercise and rest to maintain health

1.8 History and Nature of Science

None at this grade level

*Coding for Infusion Topics covered in curriculum:

Higher Order Thinking Skills (H), Vocational/Career Education (V), Global Education (G), Multi-Cultural/Gender Fair (MCGF), Learning Skills (L), Communication Skills (C), Technology (T)