

Science

Scientific Inquiry

- Clarifies questions that can be answered through science
- Identifies a hypothesis to guide investigations
- Designs and conducts controlled investigations
- Forms relationships between evidence and explanations
- Recognizes alternative explanation and conclusions
- Analyzes, makes statements, and conclusions using data
- Communicates scientific explorations through discussions
- Demonstrates safe practices in science

History and Nature of Science

- Demonstrates safe practices in science
- Explains the variety of contributions and discoveries made by women in science
- Understands that scientists value peer review
- Understands that doing science requires varying human abilities

Science in Personal and Social Perspectives

- Weighs the risks and benefits of resource use and management
- Explores the personal and societal challenges caused by changes to the environment

Science and Technology

- Identifies a problem, designs a solution or product that addresses the problem
- Identifies some of the technological solutions that make life easier and the trade-offs
- Explains how scientific inquiry and technological design are similar and different

Physical Science

- Explains that some materials may be composed of pieces too small to see without tools
- Investigates how some common materials interact to form new materials
- Demonstrates an understanding of how force, distance, and work are involved in simple machines
- Distinguishes among different forms of energy & demonstrates energy can change forms

Life Science

- Understands that the cell is the fundamental unit of life
- Investigates adaptations of structures that carry out essential functions
- Investigates how structures in organisms coordinate to carry out essential functions
- Describes the flow of matter and energy in living systems
- Earth and Space Sciences
- Investigates landforms and relates a combination of constructive and destructive forces to their formation
- Gives examples of ways in which earth's surface is built up and torn down
- Develops an understanding of the sun as a source of energy
- Investigates the apparent motion of the stars