

**New Mexico Science Content Standards, Benchmarks, and Performance Standards
Strands and Benchmarks**

Kindergarten – 4th Grade

Strand II: Content of Science

Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

K-4 Benchmark I: Know that living things have diverse forms, structures, functions, and habitats.

Grade Performance Standards

- K** Identify major structures of common living organisms (e.g., stems, leaves, and roots of plants; arms, wings, and legs of animals).
Observe that differences exist among individual living organisms (e.g., plants, animals) of the same kind.
- 1** Know that living organisms (e.g., plants, animals) have needs (e.g., water, air, food, sunlight).
- 2** Know that bacteria and viruses are germs.
- 4** Describe how all living things are made up of smaller units that are called cells.

Strand II: Content of Science

Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

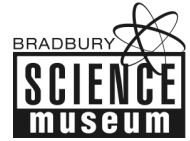
K-4 Benchmark III: Know the parts of the human body and their functions.

Grade Performance Standards

- K** Identify the parts of the human body (e.g., legs, arms, head, hands) and the functions of these parts.
- 1** Describe the basic food requirements for humans.
- 2** Identify a variety of human organs (e.g., lungs, heart, stomach, brain).
Know that various nutrients are required for specific parts and functions of the body (e.g., milk for bones and teeth, protein for muscles, sugar for energy).
Identify the functions of human systems (e.g., respiratory, circulatory, digestive).
- 3** Know that bacteria and viruses are germs that affect the human body.
Describe the nutrients needed by the human body.
- 4** Know that the human body has many parts that interact to function as systems (e.g., skeletal, muscular) and describe the parts and their specific functions in selected systems (e.g., the nose, lungs, and diaphragm in the respiratory system).
Recognize that the human body is organized from cells, to tissues, to organs, to systems, to the organism.



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**New Mexico Science Content Standards, Benchmarks, and Performance Standards
Strands and Benchmarks**

Kindergarten – 4th Grade

Strand III: Science and Society

Standard I: Understand how scientific discoveries, inventions, practices, and knowledge influence, and are influenced by, individuals and societies.

K-4 Benchmark I: Describe how science influences decisions made by individuals and societies.

Grade Performance Standards

- K** Recognize that germs exist and may cause disease.
Describe how science helps provide products we use every day.
- 1** Know that germs can be transmitted by touching, breathing, and coughing, and that washing hands helps prevent the spread of germs.
- 2** Describe ways to prevent the spread of germs (e.g., soap, bleach, cooking).
Know that science has ways to help living things avoid sickness or recover from sickness (e.g., vaccinations, medicine) and adult supervision is needed to administer them.
Know that science has discovered many things about objects, events, and nature and that there are many more questions to be answered.
- 3** Describe how food packaging (e.g., airtight containers, date) and preparation (heating, cooling, salting, smoking, drying) extend food life and the safety of foods (e.g., elimination of bacteria).
- 4** Know that science has identified substances called pollutants that get into the environment and can be harmful to living things.

**New Mexico Science Content Standards, Benchmarks, and Performance Standards
Strands and Benchmarks**

5th – 8th Grade

Strand I: Scientific Thinking and Practice

Standard I: Understand the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting, and validating to think critically.

5-8 Benchmark II: Understand the processes of scientific investigation and how scientific inquiry results in scientific knowledge.

Grade Performance Standards

- 5** Understand that different kinds of investigations are used to answer different kinds of questions (e.g., observations, data collection, controlled experiments).
Understand that scientific conclusions are subject to peer and public review.
- 6** Understand that scientific knowledge is continually reviewed, critiqued, and revised as new data become available.
Understand that scientific investigations use common processes that include the collection of relevant data and observations, accurate measurements, the identification and control of variables, and logical reasoning to formulate hypotheses and explanations.
Understand that not all investigations result in defensible scientific explanations.
- 7** Describe how bias can affect scientific investigation and conclusions.
Critique procedures used to investigate a hypothesis.
Analyze and evaluate scientific explanations.
- 8** Examine alternative explanations for observations.
Describe ways in which science differs from other ways of knowing and from other bodies of knowledge (e.g., experimentation, logical arguments, skepticism).
Know that scientific knowledge is built on questions posed as testable hypotheses, which are tested until the results are accepted by peers.

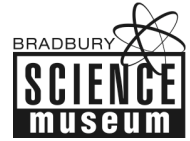
Strand II: Content of Science

Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

5-8 Benchmark I: Explain the diverse structures and functions of living things and the complex relationships between living things and their environments.

Grade Performance Standards

- 5** Identify the components of habitats and ecosystems (producers, consumers, decomposers, predators).
Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die).
Describe how human activity impacts the environment.
- 6** Describe how organisms have adapted to various environmental conditions.



**New Mexico Science Content Standards, Benchmarks, and Performance Standards
Strands and Benchmarks**

5th – 8th Grade

Strand II: Content of Science

Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

5-8 Benchmark III: Understand the structure of organisms and the function of cells in living systems.

Grade Performance Standards

5 Understand that all living organisms are composed of cells from one to many trillions, and that cells are usually only visible through a microscope.

7 Function of Cells

Understand that many basic functions of organisms are carried out in cells, including:

- growth and division to produce more cells (mitosis)
- specialized functions of cells.

Describe how some cells respond to stimuli (e.g., light, heat, pressure, gravity).

Describe how factors (radiation, UV light, drugs) can damage cellular structure or function.

Strand III: Science and Society

Standard I: Understand how scientific discoveries, inventions, practices, and knowledge influence, and are influenced by, individuals and societies.

5-8 Benchmark I: Explain how scientific discoveries and inventions have changed individuals and societies.

Grade Performance Standards

5 Describe the contributions of science to understanding local or current issues. (Epidemics)
Describe how various technologies have affected the lives of individuals (e.g., transportation, entertainment, health).

6 Examine the role of scientific knowledge in decisions (e.g., space exploration, what to eat, preventive medicine and medical treatment).

7 Analyze how technologies have been responsible for advances in medicine (e.g., vaccines, antibiotics, microscopes, DNA technologies).

Describe how scientific information can help individuals and communities respond to health emergencies (e.g., CPR, epidemics, HIV, bio-terrorism).

8 Analyze the interrelationship between science and technology (e.g., germ theory, vaccines).