

Content Area: Science
Grade/Course: 5 / ACCN: No ACCN

Strand	The Scientific Process
Standard 1: The Scientific Process: SCIENTIFIC INVESTIGATION: Discover, invent, and investigate using the skills necessary to engage in the scientific process	

Topic	Scientific Inquiry
Benchmark SC.5.1.1	Identify the variables in scientific investigations and recognize the importance of controlling variables in scientific experiments

Topic	Scientific Inquiry
Benchmark SC.5.1.2	Formulate and defend conclusions based on evidence

Strand	The Scientific Process
Standard 2: The Scientific Process: NATURE OF SCIENCE: Understand that science, technology, and society are interrelated	

Topic	Unifying Concepts and Themes
Benchmark SC.5.2.1	Use models and/or simulations to represent and investigate features of objects, events, and processes in the real world

Strand	Life and Environmental Sciences
Standard 3: Life and Environmental Sciences: ORGANISMS AND THE ENVIRONMENT: Understand the unity, diversity, and interrelationships of organisms, including their relationship to cycles of matter and energy in the environment	

Topic	Cycles of Matter and Energy
Benchmark SC.5.3.1	Describe the cycle of energy among producers, consumers, and decomposers

Topic	Interdependence
Benchmark SC.5.3.2	Describe the interdependent relationships among producers, consumers, and decomposers in an ecosystem in terms of the cycles of matter

Strand	Life and Environmental Sciences
Standard 4: Life and Environmental Sciences: STRUCTURE AND FUNCTION IN ORGANISMS: Understand the structures and functions of living organisms and how organisms can be compared scientifically	

Topic	Cells, Tissues, Organs, and Organ Systems
Benchmark SC.5.4.1	Describe the structures of the human body and how they work together to sustain life

Strand	Life and Environmental Sciences
Standard 5: Life and Environmental Sciences: DIVERSITY, GENETICS, AND EVOLUTION: Understand genetics and biological evolution and their impact on the unity and diversity of organisms	

Topic	Heredity
Benchmark SC.5.5.1	Recognize that some traits of living things are inherited and others are learned

Strand	Physical, Earth, and Space Sciences
Standard 6: Physical, Earth and Space Science: NATURE OF MATTER AND ENERGY: Understand the nature of matter and energy, forms of energy (including waves) and energy transformations, and their significance in understanding the structure of the universe	

Topic	Energy and its Transformation
Benchmark SC.5.6.1	Identify different forms of energy (e.g., thermal, electrical, nuclear, light, sound) and how they can change and transfer energy from one form to another

Topic	Energy and its Transformation
Benchmark SC.5.6.2	Describe ways that heat can be transferred from one object to another

Topic	Waves
Benchmark SC.5.6.3	Compare what happens to light when it is reflected, refracted, and absorbed

Strand	Physical, Earth, and Space Sciences
Standard 7: Physical, Earth, and Space Sciences: FORCE AND MOTION: Understand the relationship between force, mass, and motion of objects; and know the major natural forces: gravitational, electric, and magnetic	

Topic	Forces of the Universe
Benchmark SC.5.7.1	Explain how electrically charged materials can push or pull other charged materials

Strand	Physical, Earth, and Space Sciences
Standard 8: Physical, Earth, and Space Sciences: EARTH AND SPACE SCIENCE: Understand the Earth and its processes, the solar system, and the universe and its contents	

Topic	Earth in the Solar System
Benchmark SC.5.8.1	Describe the relationship (size and distance) of Earth to other components in the solar system

Topic	Earth in the Solar System
Benchmark SC.5.8.2	Describe examples of what astronomers have discovered using telescopes

Topic	Earth in the Solar System
Benchmark SC.5.8.3	Explain that the planets orbit the sun and that the moon orbits the Earth

Topic	Earth in the Solar System
Benchmark SC.5.8.4	Demonstrate that day and night are caused by the rotation of the Earth on its axis