Benchmark Results

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Benchmark#	Description	Remarks/Example
SC.6.E.6.1	Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion, and deposition.	
SC.6.E.6.2	Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.	
SC.6.E.7.1	Differentiate among radiation, conduction, and convection, the three mechanisms by which heat is transferred through Earth's system.	
SC.6.E.7.2	Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and climate.	Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.
SC.6.E.7.3	Describe how global patterns such as the jet stream and ocean currents influence local weather in measurable terms such as temperature, air pressure, wind direction and speed, and humidity and precipitation.	Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; MAFS.K12.MP.6: Attend to precision; and, MAFS.K12.MP.7: Look for and make use of structure.
SC.6.E.7.4	Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.	
SC.6.E.7.5	Explain how energy provided by the sun influences global patterns of atmospheric movement and the temperature differences between air, water, and land.	Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.
SC.6.E.7.6	Differentiate between weather and climate.	

SC.6.E.7.7	Investigate how natural disasters have affected human life in Florida.	
SC.6.E.7.8	Describe ways human beings protect themselves from hazardous weather and sun exposure.	
SC.6.E.7.9	Describe how the composition and structure of the atmosphere protects life and insulates the planet.	Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.
SC.6.L.14.1	Describe and identify patterns in the hierarchical organization of organisms from atoms to molecules and cells to tissues to organs to organ systems to organisms.	Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.
SC.6.L.14.2	Investigate and explain the components of the scientific theory of cells (cell theory): all organisms are composed of cells (single-celled or multi-cellular), all cells come from pre-existing cells, and cells are the basic unit of life.	
SC.6.L.14.3	Recognize and explore how cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing.	
SC.6.L.14.4	Compare and contrast the structure and function of major organelles of plant and animal cells, including cell wall, cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria, and vacuoles.	Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.
SC.6.L.14.5	Identify and investigate the general functions of the major systems of the human body (digestive, respiratory, circulatory, reproductive, excretory, immune, nervous, and musculoskeletal) and describe ways these systems interact with each other to maintain homeostasis.	
SC.6.L.14.6	Compare and contrast types of infectious agents that may infect the human body, including viruses, bacteria, fungi, and parasites.	Integrate HE.6.C.1.8. Explain how body systems are impacted by hereditary factors and infectious agents.

SC.6.L.15.1	Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.	
SC.6.N.1.1	Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	Florida Standards Connections: LAFS.68.RST.1.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
SC.6.N.1.2	Explain why scientific investigations should be replicable.	
SC.6.N.1.3	Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.	Explain that an investigation is observing or studying the natural world, without interference or manipulation, and an experiment is an investigation that involves variables (independent/manipulated and dependent/ outcome) and establishes cause-and-effect relationships (Schwartz, 2007).
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	Florida Standards Connections: LAFS.68.RST.3.7; LAFS.68.WHST.1.2; and, LAFS.68.WHST.3.9.
SC.6.N.2.1	Distinguish science from other activities involving thought.	Thought refers to any mental or intellectual activity involving an individual's subjective consciousness. Science is a systematic process that pursues, builds and organizes knowledge in the form of testable explanations and predictions about the natural world.

SC.6.N.2.2	Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.	
SC.6.N.2.3	Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.	
SC.6.N.3.1	Recognize and explain that a scientific theory is a well-supported and widely accepted explanation of nature and is not simply a claim posed by an individual. Thus, the use of the term theory in science is very different than how it is used in everyday life.	
SC.6.N.3.2	Recognize and explain that a scientific law is a description of a specific relationship under given conditions in the natural world. Thus, scientific laws are different from societal laws.	
SC.6.N.3.3	Give several examples of scientific laws.	
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics.
SC.6.P.11.1	Explore the Law of Conservation of Energy by differentiating between potential and kinetic energy. Identify situations where kinetic energy is transformed into potential energy and vice versa.	
SC.6.P.12.1	Measure and graph distance versus time for an object moving at a constant speed. Interpret this relationship.	Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.
SC.6.P.13.1	Investigate and describe types of forces including contact forces and forces acting at a distance, such as electrical, magnetic, and gravitational.	

SC.6.P.13.2	Explore the Law of Gravity by recognizing that every object exerts gravitational force on every other object and that the force depends on how much mass the objects have and how far apart they are.	
SC.6.P.13.3	Investigate and describe that an unbalanced force acting on an object changes its speed, or direction of motion, or both.	

Idea/Standard	Body Of Knowledge/ Strand	Cognitive Complexity Rating	Direct Link
Earth Structures	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1756
Earth Structures	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1757
Earth Systems and Patterns	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1758
Earth Systems and Patterns	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1759
Earth Systems and Patterns	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1760
Earth Systems and Patterns	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1761
Earth Systems and Patterns	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1762
Earth Systems and Patterns	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1763

Earth Systems and Patterns	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1764
Earth Systems and Patterns	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1765
Earth Systems and Patterns	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1766
Organization and Development of Living Organisms	Life Science	Level 1: Recall	http://www.cpalms.org/Public/PreviewStandard/Preview/1772
Organization and Development of Living Organisms	Life Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1773
Organization and Development of Living Organisms	Life Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1776
Organization and Development of Living Organisms	Life Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1777
Organization and Development of Living Organisms	Life Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1778
Organization and Development of Living Organisms	Life Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1779

Diversity and Evolution of Living Organisms	Life Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1780
The Practice of Science	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1748
The Practice of Science	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1717
The Practice of Science	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1749
The Practice of Science	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1750
The Practice of Science	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1751
The Characteristics of Scientific Knowledge	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1731

The Characteristics of Scientific Knowledge	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1752
The Characteristics of Scientific Knowledge	Nature of Science	Level 1: Recall	http://www.cpalms.org/Public/PreviewStandard/Preview/1753
The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1754
The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1755
The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	Level 1: Recall	http://www.cpalms.org/Public/PreviewStandard/Pr
The Role of Theories, Laws, Hypotheses, and Models	Nature of Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1733
Energy Transfer and Transformations	Physical Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1767
Motion of Objects	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	http://www.cpalms.org/Public/PreviewStandard/Preview/1768
Forces and Changes in Motion	Physical Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1769

Forces and Changes in Motion	Physical Science	Level 1: Recall	http://www.cpalms.org/Public/PreviewStandard/Preview/1770
Forces and Changes in Motion	Physical Science	Level 2: Basic Application of Skills & Concepts	http://www.cpalms.org/Public/PreviewStandard/Preview/1771