

Benchmark Results

This document was generated by browsing, searching, or listing all entities on CPALMS - www.cpalms.org

Benchmark#	Description	Remarks/Example	Idea/Standard	Subject	Grade	Body Of Knowledge/ Strand	Cognitive Complexity Rating	Date Adopted/ Revised	Direct Link
SC.4.E.5.1	Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons.	** Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.	Earth in Space and Time	Science	4	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1673
SC.4.E.5.2	Describe the changes in the observable shape of the moon over the course of about a month.		Earth in Space and Time	Science	4	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1674
SC.4.E.5.3	Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day.	** Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.	Earth in Space and Time	Science	4	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1675
SC.4.E.5.4	Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and stars are connected.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.5.1, SC.4.E.5.2, and SC.4.E.5.3. Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.	Earth in Space and Time	Science	4	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1676
SC.4.E.5.5	Investigate and report the effects of space research and exploration on the economy and culture of Florida.		Earth in Space and Time	Science	4	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1677
SC.4.E.6.1	Identify the three categories of rocks: igneous, (formed from molten rock) sedimentary (pieces of other rocks and fossilized organisms) and metamorphic (formed from heat and pressure).		Earth Structures	Science	4	Earth and Space Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1678
SC.4.E.6.2	Identify the physical properties of common earth-forming minerals, including hardness,	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.6.1.	Earth Structures	Science	4	Earth and Space Science	Level 2: Basic Application	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1679

	color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks.						of Skills & Concepts		
SC.4.E.6.3	Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.6.1.	Earth Structures	Science	4	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1680
SC.4.E.6.4	Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temperature change, and plants) and erosion (movement of rock by gravity, wind, water, and ice).	Annually assessed on Grade 5 Science FCAT 2.0.	Earth Structures	Science	4	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1681
SC.4.E.6.5	Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.	MAFS.K12.MP.5: Use appropriate tools strategically.	Earth Structures	Science	4	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1685
SC.4.E.6.6	Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).		Earth Structures	Science	4	Earth and Space Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1686
SC.4.L.16.1	Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.		Heredity and Reproduction	Science	4	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1696
SC.4.L.16.2	Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.	Integrate HE.4.C.1.6. Identify the human body parts and organs that work together to form healthy body systems.	Heredity and Reproduction	Science	4	Life Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1697
SC.4.L.16.3	Recognize that animal behaviors may be shaped by heredity and learning.		Heredity and Reproduction	Science	4	Life Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1664
SC.4.L.16.4	Compare and contrast the major stages in the life cycles of	Annually assessed on Grade 5 Science FCAT 2.0.	Heredity and Reproduction	Science	4	Life Science	Level 2: Basic	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1698

	Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and nonflowering seed-bearing plants.						Application of Skills & Concepts		
SC.4.L.17.1	Compare the seasonal changes in Florida plants and animals to those in other regions of the country.		Interdependence	Science	4	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1701
SC.4.L.17.2	Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.		Interdependence	Science	4	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1702
SC.4.L.17.3	Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.L.17.2 and SC.4.L.17.2.	Interdependence	Science	4	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1703
SC.4.L.17.4	Recognize ways plants and animals, including humans, can impact the environment.	Introduce the impacts of invasive species, such as Brazilian pepper, Cuban anole, Kudzu, Australian pine, non-native pets released into wild (Burmese python). Ocean pollution resulting from discharge of sewage, toxic chemicals, manufacturing wastes, fertilizers, soaps, detergents, runoff and insecticides; population growth causes consumption of limited resources and land use expansion to accommodate for more people; animal extinction (endangered and threatened species).	Interdependence	Science	4	Life Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1704
SC.4.N.1.1	Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic	* Florida Standards Connections: LAFS.4.RI.1.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. ** Florida Standards Connections:	The Practice of Science	Science	4	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1661

	investigations, and generate appropriate explanations based on those explorations.	MAFS.K12.MP.1: Make sense of problems and persevere in solving them; and, MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.							
SC.4.N.1.2	Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.	* Florida Standards Connections: LAFS.4.SL.1.1. Engage effectively in a range of collaborative discussions with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. ** Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics; and, MAFS.K12.MP.5: Use appropriate tools strategically.	The Practice of Science	Science	4	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1662
SC.4.N.1.3	Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.		The Practice of Science	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1663
SC.4.N.1.4	Attempt reasonable answers to scientific questions and cite evidence in support.	* Florida Standards Connections: LAFS.4.W.3.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. LAFS.4.W.3.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. ** Florida Standards Connections: MAFS.K12.MP.1: Make sense of problems and persevere in solving them; and, MAFS.K12.MP.2: Reason abstractly and quantitatively.	The Practice of Science	Science	4	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1630
SC.4.N.1.5	Compare the methods and results of investigations done by other classmates.	** Florida Standards Connections: MAFS.K12.MP.6: Attend to precision.	The Practice of Science	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1631
SC.4.N.1.6	Keep records that describe	** Florida Standards Connections:	The Practice of	Science	4	Nature of	Level 3:	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1668

	observations made, carefully distinguishing actual observations from ideas and inferences about the observations.	MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.	Science			Science	Strategic Thinking & Complex Reasoning		
SC.4.N.1.7	Recognize and explain that scientists base their explanations on evidence.	** Florida Standards Connections: MAFS.K12.MP.1: Make sense of problems and persevere in solving them.	The Practice of Science	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1669
SC.4.N.1.8	Recognize that science involves creativity in designing experiments.	** Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically.	The Practice of Science	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1670
SC.4.N.2.1	Explain that science focuses solely on the natural world.		The Characteristics of Scientific Knowledge	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1671
SC.4.N.3.1	Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.	** Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively; and, MAFS.K12.MP.4: Model with mathematics.	The Role of Theories, Laws, Hypotheses, and Models	Science	4	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1672
SC.4.P.10.1	Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.		Forms of Energy	Science	4	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1691
SC.4.P.10.2	Investigate and describe that energy has the ability to cause motion or create change.		Forms of Energy	Science	4	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1683
SC.4.P.10.3	Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.		Forms of Energy	Science	4	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1692
SC.4.P.10.4	Describe how moving water and air are sources of energy and can be used to move things.		Forms of Energy	Science	4	Physical Science	Level 2: Basic Application	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1684

							of Skills & Concepts		
SC.4.P.11.1	Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature.		Energy Transfer and Transformations	Science	4	Physical Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1693
SC.4.P.11.2	Identify common materials that conduct heat well or poorly.		Energy Transfer and Transformations	Science	4	Physical Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1632
SC.4.P.12.1	Recognize that an object in motion always changes its position and may change its direction.		Motion of Objects	Science	4	Physical Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1694
SC.4.P.12.2	Investigate and describe that the speed of an object is determined by the distance it travels in a unit of time and that objects can move at different speeds.		Motion of Objects	Science	4	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1695
SC.4.P.8.1	Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.	Investigate the concept of weight versus mass of objects. Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.	Properties of Matter	Science	4	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1687
SC.4.P.8.2	Identify properties and common uses of water in each of its states.		Properties of Matter	Science	4	Physical Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1682
SC.4.P.8.3	Explore the Law of Conservation of Mass by demonstrating that the mass of a whole object is always the same as the sum of the masses of its parts.	Investigate the concept of weight versus mass of objects. Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.	Properties of Matter	Science	4	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1688
SC.4.P.8.4	Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.		Properties of Matter	Science	4	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1689

SC.4.P.9.1	Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.		Changes in Matter	Science	4	Physical Science	Level 1: Recall	02/08	http://www.cpalms.org/Public/PreviewStandard/Preview/1690
------------	--	--	-------------------	---------	---	------------------	--------------------	-------	---