

Benchmark Results

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Benchmark#	Description	Remarks/Example	Idea/Standard	Subject	Grade	Body Of Knowledge/ Strand	Cognitive Complexity Rating	Date Adopted/ Revised	Direct Link
SC.5.E.5.1	Recognize that a galaxy consists of gas, dust, and many stars, including any objects orbiting the stars. Identify our home galaxy as the Milky Way.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.E.5.1, SC.3.E.5.2, and SC.3.E.5.3.	Earth in Space and Time	Science	5	Earth and Space Science	Level 1: Recall	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1713">http://www.cpalms.org/Public/PreviewStandard/Preview/1713</a>
SC.5.E.5.2	Recognize the major common characteristics of all planets and compare/contrast the properties of inner and outer planets.		Earth in Space and Time	Science	5	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1714">http://www.cpalms.org/Public/PreviewStandard/Preview/1714</a>
SC.5.E.5.3	Distinguish among the following objects of the Solar System Sun, planets, moons, asteroids, comets and identify Earth's position in it.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.5.E.5.2.	Earth in Space and Time	Science	5	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1718">http://www.cpalms.org/Public/PreviewStandard/Preview/1718</a>
SC.5.E.7.1	Create a model to explain the parts of the water cycle. Water can be a gas, a liquid, or a solid and can go back and forth from one state to another.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.5.E.7.2.  Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics.	Earth Systems and Patterns	Science	5	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1719">http://www.cpalms.org/Public/PreviewStandard/Preview/1719</a>
SC.5.E.7.2	Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs via evaporation and precipitation processes.		Earth Systems and Patterns	Science	5	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1720">http://www.cpalms.org/Public/PreviewStandard/Preview/1720</a>
SC.5.E.7.3	Recognize how air temperature, barometric pressure, humidity, wind speed and direction, and precipitation determine the weather in a particular place and time.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.5.E.7.4, SC.5.E.7.5, and SC.5.E.7.6.	Earth Systems and Patterns	Science	5	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1721">http://www.cpalms.org/Public/PreviewStandard/Preview/1721</a>
SC.5.E.7.4	Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.		Earth Systems and Patterns	Science	5	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1722">http://www.cpalms.org/Public/PreviewStandard/Preview/1722</a>

SC.5.E.7.5	Recognize that some of the weather-related differences, such as temperature and humidity, are found among different environments, such as swamps, deserts, and mountains.		Earth Systems and Patterns	Science	5	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1723">http://www.cpalms.org/Public/PreviewStandard/Preview/1723</a>
SC.5.E.7.6	Describe characteristics (temperature and precipitation) of different climate zones as they relate to latitude, elevation, and proximity to bodies of water.		Earth Systems and Patterns	Science	5	Earth and Space Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1724">http://www.cpalms.org/Public/PreviewStandard/Preview/1724</a>
SC.5.E.7.7	Design a family preparedness plan for natural disasters and identify the reasons for having such a plan.		Earth Systems and Patterns	Science	5	Earth and Space Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1725">http://www.cpalms.org/Public/PreviewStandard/Preview/1725</a>
SC.5.L.14.1	Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs.	Muscles and skeleton are not organs in the human body and should be referred to as the muscular and skeletal systems and the function of the muscles and skeleton. Integrate HE.5.C.1.6.Explain how human body parts and organs work together in healthy body systems, including the endocrine and reproductive systems. Annually assessed on Grade 5 Science FCAT 2.0 (human body systems are not assessed through this benchmark).	Organization and Development of Living Organisms	Science	5	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1742">http://www.cpalms.org/Public/PreviewStandard/Preview/1742</a>
SC.5.L.14.2	Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support some with internal skeletons others with exoskeletons while some plants have stems for support.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.L.15.1 and SC.3.L.15.2.	Organization and Development of Living Organisms	Science	5	Life Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1743">http://www.cpalms.org/Public/PreviewStandard/Preview/1743</a>
SC.5.L.15.1	Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.		Diversity and Evolution of Living Organisms	Science	5	Life Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1744">http://www.cpalms.org/Public/PreviewStandard/Preview/1744</a>
SC.5.L.17.1	Compare and contrast adaptations	Annually assessed on Grade 5	Interdependence	Science	5	Life Science	Level 2:	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1745">http://www.cpalms.org/Public/PreviewStandard/Preview/1745</a>

	displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.	Science FCAT 2.0. Also assesses SC.3.L.17.1, SC.4.L.16.2, SC.4.L.16.3, SC.4.L.17.1, SC.4.L.17.4, and SC.5.L.15.1.					Basic Application of Skills & Concepts		
SC.5.N.1.1	Define a problem, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types such as: systematic observations, experiments requiring the identification of variables, collecting and organizing data, interpreting data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.	Design and evaluate a written procedure or experimental setup. Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.N.1.1, SC.4.N.1.1, SC.4.N.1.6, SC.5.N.1.2, and SC.5.N.1.4.  Florida Standards Connections: LAFS.5.RI.1.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. LAFS.5.W.3.8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. MAFS.5.MD.2.2. Represent and interpret data. MAFS.5.G.1. Graph points on the coordinate plane to solve real-world and mathematical problems.  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	5	Nature of Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1705">http://www.cpalms.org/Public/PreviewStandard/Preview/1705</a>
SC.5.N.1.2	Explain the difference between an experiment and other types of scientific investigation.	Explain that an investigation is observing the natural world, without interference, and an experiment involves variables (independent/test and dependent/outcome) and establishes cause-	The Practice of Science	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1706">http://www.cpalms.org/Public/PreviewStandard/Preview/1706</a>

		effect relationships (Schwartz, 2007).							
SC.5.N.1.3	Recognize and explain the need for repeated experimental trials.	Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.	The Practice of Science	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1707">http://www.cpalms.org/Public/PreviewStandard/Preview/1707</a>
SC.5.N.1.4	Identify a control group and explain its importance in an experiment.	Florida Standards Connections: MAFS.K12.MP.6: Attend to precision.	The Practice of Science	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1708">http://www.cpalms.org/Public/PreviewStandard/Preview/1708</a>
SC.5.N.1.5	Recognize and explain that authentic scientific investigation frequently does not parallel the steps of "the scientific method."	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	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1709">http://www.cpalms.org/Public/PreviewStandard/Preview/1709</a>
SC.5.N.1.6	Recognize and explain the difference between personal opinion/interpretation and verified observation.		The Practice of Science	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1710">http://www.cpalms.org/Public/PreviewStandard/Preview/1710</a>
SC.5.N.2.1	Recognize and explain that science is grounded in empirical observations that are testable explanation must always be linked with evidence.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.N.1.7, SC.4.N.1.3, SC.4.N.1.7, SC.5.N.1.5, and SC.5.N.1.6.  Florida Standards Connections: LAFS.5.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; and, MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.	The Characteristics of Scientific Knowledge	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1711">http://www.cpalms.org/Public/PreviewStandard/Preview/1711</a>

SC.5.N.2.2	Recognize and explain that when scientific investigations are carried out, the evidence produced by those investigations should be replicable by others.	<p>Remarks/Examples: Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.N.1.2, SC.3.N.1.5, SC.4.N.1.2, SC.4.N.1.5, and SC.5.N.1.3.</p> <p>Florida Standards Connections: LAFS.5.SL.1.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.</p> <p>Florida Standards Connections: MAFS.K12.MP.6: Attend to precision.</p>	The Characteristics of Scientific Knowledge	Science	5	Nature of Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1712">http://www.cpalms.org/Public/PreviewStandard/Preview/1712</a>
SC.5.P.10.1	Investigate and describe some basic forms of energy, including light, heat, sound, electrical, chemical, and mechanical.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.P.10.1, SC.3.P.10.3, SC.3.P.10.4, SC.3.P.11.1, SC.3.P.11.2, SC.4.P.10.1, and SC.4.P.10.3.	Forms of Energy	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1734">http://www.cpalms.org/Public/PreviewStandard/Preview/1734</a>
SC.5.P.10.2	Investigate and explain that energy has the ability to cause motion or create change.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.P.10.2, SC.4.P.10.2, and SC.4.P.10.4.	Forms of Energy	Science	5	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1715">http://www.cpalms.org/Public/PreviewStandard/Preview/1715</a>
SC.5.P.10.3	Investigate and explain that an electrically-charged object can attract an uncharged object and can either attract or repel another charged object without any contact between the objects.		Forms of Energy	Science	5	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1735">http://www.cpalms.org/Public/PreviewStandard/Preview/1735</a>
SC.5.P.10.4	Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.E.6.1, SC.4.P.11.1, SC.4.P.11.2, SC.5.P.10.3, SC.5.P.11.1, and SC.5.P.11.2.	Forms of Energy	Science	5	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1736">http://www.cpalms.org/Public/PreviewStandard/Preview/1736</a>
SC.5.P.11.1	Investigate and illustrate the fact that the flow of electricity requires a closed circuit (a complete loop).		Energy Transfer and Transformations	Science	5	Physical Science	Level 2: Basic Application of Skills &	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1737">http://www.cpalms.org/Public/PreviewStandard/Preview/1737</a>

							Concepts		
SC.5.P.11.2	Identify and classify materials that conduct electricity and materials that do not.		Energy Transfer and Transformations	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1716">http://www.cpalms.org/Public/PreviewStandard/Preview/1716</a>
SC.5.P.13.1	Identify familiar forces that cause objects to move, such as pushes or pulls, including gravity acting on falling objects.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.E.5.4 and SC.4.P.8.4.	Forces and Changes in Motion	Science	5	Physical Science	Level 1: Recall	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1738">http://www.cpalms.org/Public/PreviewStandard/Preview/1738</a>
SC.5.P.13.2	Investigate and describe that the greater the force applied to it, the greater the change in motion of a given object.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.P.12.1, SC.4.P.12.2, SC.5.P.13.3, and SC.5.P.13.4.	Forces and Changes in Motion	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1739">http://www.cpalms.org/Public/PreviewStandard/Preview/1739</a>
SC.5.P.13.3	Investigate and describe that the more mass an object has, the less effect a given force will have on the object's motion.		Forces and Changes in Motion	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1740">http://www.cpalms.org/Public/PreviewStandard/Preview/1740</a>
SC.5.P.13.4	Investigate and explain that when a force is applied to an object but it does not move, it is because another opposing force is being applied by something in the environment so that the forces are balanced.		Forces and Changes in Motion	Science	5	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1741">http://www.cpalms.org/Public/PreviewStandard/Preview/1741</a>
SC.5.P.8.1	Compare and contrast the basic properties of solids, liquids, and gases, such as mass, volume, color, texture, and temperature.	Investigate the concept of weight versus mass of an object. Discuss why mass (not weight) is used to compare properties of solids, liquids and gases. Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.P.8.1, SC.3.P.8.2, SC.3.P.8.3, and SC.4.P.8.1.  MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.	Properties of Matter	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1726">http://www.cpalms.org/Public/PreviewStandard/Preview/1726</a>
SC.5.P.8.2	Investigate and identify materials that will dissolve in water and those that will not and identify the		Properties of Matter	Science	5	Physical Science	Level 3: Strategic Thinking &	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1727">http://www.cpalms.org/Public/PreviewStandard/Preview/1727</a>

	conditions that will speed up or slow down the dissolving process.						Complex Reasoning		
SC.5.P.8.3	Demonstrate and explain that mixtures of solids can be separated based on observable properties of their parts such as particle size, shape, color, and magnetic attraction.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.5.P.8.2.	Properties of Matter	Science	5	Physical Science	Level 2: Basic Application of Skills & Concepts	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1728">http://www.cpalms.org/Public/PreviewStandard/Preview/1728</a>
SC.5.P.8.4	Explore the scientific theory of atoms (also called atomic theory) by recognizing that all matter is composed of parts that are too small to be seen without magnification.	Recognize that matter is composed of atoms.	Properties of Matter	Science	5	Physical Science	Level 1: Recall	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1729">http://www.cpalms.org/Public/PreviewStandard/Preview/1729</a>
SC.5.P.9.1	Investigate and describe that many physical and chemical changes are affected by temperature.	Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.P.9.1 and SC.4.P.9.1.	Changes in Matter	Science	5	Physical Science	Level 3: Strategic Thinking & Complex Reasoning	02/08	<a href="http://www.cpalms.org/Public/PreviewStandard/Preview/1730">http://www.cpalms.org/Public/PreviewStandard/Preview/1730</a>