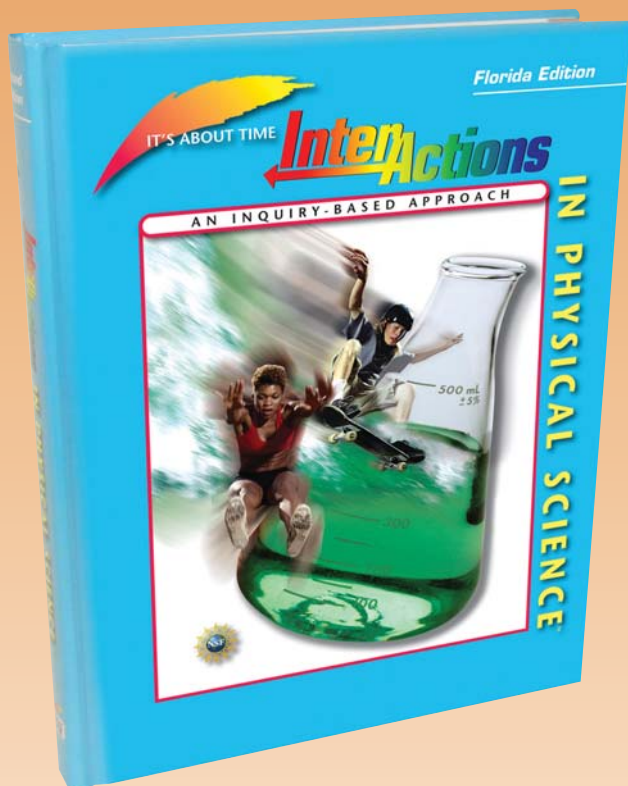




**Florida Edition**

# InterActions in Physical Science

**CORRELATION  
FLORIDA DEPARTMENT OF EDUCATION  
INSTRUCTIONAL MATERIALS CORRELATION  
COURSE STANDARDS**



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# Correlation of Florida Next Generation Sunshine State Standards to *InterActions in Physical Science*

Florida Next Generation Sunshine State Standards	<i>InterActions in Physical Science</i>
Scheme and Descriptor	
<b>Standard 2: Nonfiction</b>	
<b>LA.6.2.2.3</b> The student will organize information to show understanding (e.g., representing main ideas within text through charting, mapping, paraphrasing, summarizing, or comparing/contrasting).	Unit 1, Chapter 1, pp.12-15, 20-24, 30 Unit 2, Chapter 1, pp. 147, 159-164 Unit 2, Chapter 2 pp. 205-208 Unit 3, Chapter 1, pp. 232, 246 Unit 4, Chapter 1, pp 356-357 Unit 4, Chapter 2, pp. 377-379, 385-386, 397, 431-434 Unit 5, Chapter 1, pp. 451, 457-458, 465-467, 486 Unit 5, Chapter 2, pp. 500, 509-510, 514-515 Unit 6, Chapter 1, pp. 544, 551, 567, 591 Unit 6, Chapter 2, pp. 627-628, 636-638
<b>Standard 2: Informative</b>	
<b>LA.6.4.2.2</b> The student will record information (e.g., observations, notes, lists, charts, legends) related to a topic, including visual aids to organize and record information and include a list of sources used.	Unit 1, Chapter 1, pp 16-24 Unit 1, Chapter 3 pp 92-93, 97, 101, 103, 107, 109, 114-118 Unit 2, Chapter 1, pp 141-147; 155-158 Unit 2, Chapter 2, pp 206, 209-212 Unit 3, Chapter 1, pp. 232-233, 236-237, 239 Unit 3, Chapter 2, pp 274-279, 283, 285, 288-289, 293-294, 298-299, 302-303 Unit 4, Chapter 1, pp 344-345, 348, 354, 355, 358 Unit 4, Chapter 2, pp. 369, 371-373, 377-379, 381-383 Unit 5, Chapter 1, pp 451, 453-456, 460-462, 465-467, 474, 478, 484, 486 Unit 5, Chapter 2, pp. 502, 506-516 Unit 6, Chapter 1, pp. 564, 566, 575, 579, 582, 597 Unit 6, Chapter 2, pp. 627-628, 636-638
<b>Big Idea 3: Write, Interpret, and Use Mathematical Expressions and Equations</b>	
<b>MA.6.A.3.6</b> Construct and analyze tables, graphs, and equations to describe linear functions and other simple relations using both common language and algebraic notation.	Unit 1, Chapter 3, pp. 91-93, 114-118, 120, 123, 124, 126 Unit 2, Chapter 1, pp. 159-179 Unit 3, Chapter 2, pp., 290-294, 297-299 Unit 4, Chapter 2, pp. 373, 382-384, 436 Unit 6, Chapter 1, p. 583 How To, p. 696

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<b>Supporting Idea 6: Data Analysis</b>	
<b>MA.6.S.6.2</b> Select and analyze the measures of central tendency or variability to represent, describe, analyze, and/or summarize a data set for the purposes of answering questions appropriately.	Unit 1, Chapter 1, pp. 11, 13, 28-34, 35, 37 Unit 2, Chapter 2, pp. 201-208 Unit 4, Chapter 1, pp. 352, 356, 361 Unit 4, Chapter 2, pp. 433 How To, pp. 683-684
<b>Big Idea 8: Properties of Matter</b>	
<b>A:</b> All objects and substances in the world are made of matter. Matter has two fundamental properties: matter takes up space and matter has mass which gives it inertia.	
<b>B:</b> Objects and substances can be classified by their physical and chemical properties. Mass is the amount of matter (or “stuff”) in an object. Weight, on the other hand, is the measure of force of attraction (gravitational force) between an object and Earth.	
<b>C:</b> The concepts of mass and weight are complicated and potentially confusing to elementary students. Hence, the more familiar term of “weight” is recommended for use to stand for both mass and weight in grades K-5. By grades 6-8, students are expected to understand the distinction between mass and weight, and use them appropriately.	
<b>SC.8.P.8.1</b> Explore the scientific theory of atoms (also known as atomic theory) by using models to explain the motion of particles in solids, liquids, and gases.	Unit 6, Chapter 1, pp. 545-601, 611-618
<b>SC.8.P.8.2</b> Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional to, mass.	Unit 1, Chapter 3, pp. 99-104 Unit 3, Chapter 2, pp. 280-283, 330
<b>SC.8.P.8.3</b> Explore and describe the densities of various materials through measurement of their masses and volumes.	Unit 1, Chapter 3, pp.105-108, 114-118, 124, 127-128 Unit 3, Chapter 2, pp. 298-300, 335-336
<b>SC.8.P.8.4</b> Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured: for example, density, thermal or electrical conductivity, solubility, magnetic properties, melting and boiling points, and know that these properties are independent of the amount of the sample.	Unit 1, Chapter 2, pp. 53-68 Unit 1, Chapter 3, pp. 105-108, 109-113, 114-118 Unit 4, Chapter 2, pp. 370-386 Unit 5, Chapter 2, pp. 498-503, 506-528 Unit 6, Chapter 1, pp. 545-551, 583-590, 592-596 Tables, pp 723-725
<b>SC.8.P.8.5</b> Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.	Unit 5, Chapter 2, pp. 511-528 Unit 6, Chapter 2, pp. 622-667
<b>SC.8.P.8.6</b> Recognize that elements are grouped in the periodic table according to similarities of their properties.	Unit 5, Chapter 2, pp. 517-522, 526-528

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<b>SC.8.P.8.7</b> Explore the scientific theory of atoms (also known as atomic theory) by recognizing that atoms are the smallest unit of an element and are composed of sub-atomic particles (electrons surrounding a nucleus containing protons and neutrons).	Unit 6, Chapter 1, pp. 552-561, 597-610, 617-620
<b>SC.8.P.8.8</b> Identify basic examples of and compare and classify the properties of compounds, including acids, bases, and salts.	Unit 5, Chapter 1, pp. 465-472, 486, 487, 491 Unit 5, Chapter 2, pp. 511-516, 524-525
<b>SC.8.P.8.9</b> Distinguish among mixtures (including solutions) and pure substances.	Unit 5, Chapter 2, pp. 506-510, 523
<b>Big Idea 9: Changes in Matter</b>	
<b>A:</b> Matter can undergo a variety of changes.	
<b>B:</b> When matter is changed physically, generally no changes occur in the structure of the atoms or molecules composing the matter.	
<b>C:</b> When matter changes chemically, a rearrangement of bonds between the atoms occurs. This results in new substances with new properties.	
<b>SC.8.P.9.1</b> Explore the Law of Conservation of Mass by demonstrating and concluding that mass is conserved when substances undergo physical and chemical changes.	Unit 4, Chapter 1, pp. 344-366 Unit 5, Chapter 1, pp. 478-480, 493 Unit 5, Chapter 2, pp. 501-504 Unit 6, Chapter 2, pp. 622-625, 635-667
<b>SC.8.P.9.2</b> Differentiate between physical changes and chemical changes.	Unit 5, Chapter 1, pp. 450-451, 459-477, 481-485, 487-488 Unit 5, Chapter 2, pp. 498-536 Unit 6, Chapter 1, p. 545-591 Unit 6, Chapter 2, pp. 626-642, 647-653
<b>SC.8.P.9.3</b> Investigate and describe how temperature influences chemical changes.	Unit 5, Chapter 1, pp. 460-461, 473-477, 481-485
<b>Big Idea 10: Forms of Energy</b>	
<b>A:</b> Energy is involved in all physical processes and is a unifying concept in many areas of science.	
<b>B:</b> Energy exists in many forms and has the ability to do work or cause a change.	
<b>SC.7.P.10.1</b> Illustrate that the sun’s energy arrives as radiation with a wide range of wavelengths, including infrared, visible, and ultraviolet, and that white light is made up of a spectrum of many different colors.	Unit 4, Chapter 2, pp. 375-377, 411, 425-426, 442-443
<b>SC.7.P.10.2</b> Observe and explain that light can be reflected, refracted, and/or absorbed.	Unit 4, Chapter 2, pp. 398-414, 416-417

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<b>SC.7.P.10.3</b> Recognize that light waves, sound waves, and other waves move at different speeds in different materials.	Unit 2, Chapter 1, pp. 141-154, 159-176 Unit 4, Chapter 2, pp. 404-405
<b>Big Idea 11: Energy Transfer and Transformations</b>	
<b>A:</b> Waves involve a transfer of energy without a transfer of matter.	
<b>B:</b> Water and sound waves transfer energy through a material.	
<b>C:</b> Light waves can travel through a vacuum and through matter.	
<b>D:</b> The Law of Conservation of Energy: energy is conserved as it transfers from one object to another and from one form to another.	
<b>SC.6.P.11.1</b> 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.	Unit 2, Chapter 2, pp. 189-200, 202-204 Unit 3, Chapter 2, pp. 301-304 Unit 4, Chapter 2, pp. 368-397 Unit 5, Chapter 1, pp. 482-486 Unit 6, Chapter 1, pp. 566-567 Unit 6, Chapter 2, pp. 626-627, 630-634
<b>SC.7.P.11.1</b> Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.	Unit 4, Chapter 2, pp.368-394 Unit 5, Chapter 1, pp. 481-486 Unit 6, Chapter 1, pp. 566-567; 583-591
<b>SC.7.P.11.2</b> Investigate and describe the transformation of energy from one form to another.	Unit 2, Chapter 1, pp. 134-147 Unit 4, Chapter 2, pp. 395-397 Unit 5, Chapter 1, pp. 481-485 Unit 6, Chapter 2, p. 626
<b>SC.7.P.11.3</b> Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.	Unit 4, Chapter 2, pp. 392-397 Unit 5, Chapter 1, p. 483 Unit 6, Chapter 2, pp. 626-627, 632-634, 659-660
<b>SC.7.P.11.4</b> Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.	Unit 4, Chapter 2, pp. 370-386, 390-391, 394-397 Unit 5, Chapter 1, pp. 481-485
<b>Big Idea 12: Motion of Objects</b>	
<b>A:</b> Motion is a key characteristic of all matter that can be observed, described, and measured.	
<b>B:</b> The motion of objects can be changed by forces.	
<b>SC.6.P.12.1</b> Measure and graph distance versus time for an object moving at a constant speed. Interpret this relationship.	Unit 2, Chapter 1, pp. 159-165, 171-176 Unit 4, Chapter 2, pp. 431-434

Florida Next Generation Sunshine State Standards	<i>InterActions in Physical Science</i>	
Scheme and Descriptor		
<b>Big Idea 13: Forces and Changes in Motion</b>		
<b>A:</b> It takes energy to change the motion of objects.		
<b>B:</b> Energy change is understood in terms of forces--pushes or pulls.		
<b>C:</b> Some forces act through physical contact, while others act at a distance.		
<b>SC.6.P.13.1</b> Investigate and describe types of forces including contact forces and forces acting at a distance, such as electrical, magnetic, and gravitational.	Unit 1, Chapter 2, pp. 47-52, 53, 70-71, 76-78 Unit 2, Chapter 2, pp. 182-183, 185-187, 205-208 Unit 3, Chapter 1, 224-233, 240-260 Unit 3, Chapter 2, pp. 274-300, 305, 321-334 Unit 4, Chapter 2, pp. 431-434 Unit 6, Chapter 1, pp. 568-591 Unit 6, Chapter 2, pp. 626-629	
<b>SC.6.P.13.2</b> 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.	Unit 3, Chapter 2, pp. 274-289, 321-328 Unit 4, Chapter 2, pp. 431-434	
<b>SC.6.P.13.3</b> Investigate and describe that an unbalanced force acting on an object changes its speed, or direction of motion, or both.	Unit 3, Chapter 1, pp. 224-233, 240-260 Unit 3, Chapter 2, pp. 287-300, 333, 336 Unit 4, Chapter 2, pp. 431-434	
<b>Big Idea 1: The Practice of Science</b>		
<b>A:</b> Scientific inquiry is a multifaceted activity: The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation.		
<b>B:</b> The processes of science frequently do not correspond to the traditional portrayal of “the scientific method.”		
<b>C:</b> Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge.		
<b>D:</b> Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations.		

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Scheme and Descriptor	
<p><b>SC.6.N.1.1</b> 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.</p>	<p>Unit 1, Chapter 2, pp. 47-52, 70-71            Unit 2, Chapter 1, pp. 159-165, 171-176            Unit 2, Chapter 2, pp. 185-189, 205-208            Unit 3, Chapter 1, pp. 224-233, 238-239, 250-253            Unit 3, Chapter 2, pp. 274-283, 287-289, 295-300            Unit 4, Chapter 1, pp. 344-358            Unit 4, Chapter 2, pp. 370-373, 380-386, 431-434            Unit 6, Chapter 1, pp. 568-572            How to, pp. 683-685, 689-691</p>
<p><b>SC.6.N.1.2</b> Explain why scientific investigations should be replicable.</p>	<p>Unit 1, Chapter 1, p. 10-11            Unit 4, Chapter 1, pp. 350, 362-363            Unit 4, Chapter 2, p. 443</p>
<p><b>SC.6.N.1.3</b> Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.</p>	<p>Unit 2, Chapter 2, p. 215            Unit 4, Chapter 2, p. 387-388, 443            How to, pp. 692-696</p>
<p><b>SC.6.N.1.4</b> Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.</p>	<p>Unit 1, Chapter 1, pp. 9-24            Unit 1, Chapter 2, pp. 51-52, 59, 66-68, 72, 74, 78            Unit 1, Chapter 3, pp. 92-94, 98, 107-108, 118            Unit 2, Chapter 1, pp. 135-176            Unit 2, Chapter 2, pp. 187, 193, 199, 208            Unit 3 Chapter 1, pp. 225, 228, 230, 233, 236-237, 239, 243, 245-247            Unit 3, Chapter 2, pp. 274, 276, 279, 282-283, 300, 304            Unit 4, Chapter 1, pp. 347-350, 353, 357-358            Unit 4, Chapter 2, pp 374, 377, 379, 384-386, 392            Unit 5, Chapter 1, pp. 456-458, 461-475, 479-480, 482-485, 487-488            Unit 5, Chapter 2, pp. 499-516            Unit 6, Chapter 1, pp. 540-544, 545-551, 568-572</p>
<p><b>SC.6.N.1.5</b> Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.</p>	<p>Unit 1, Chapter 1, p. 15            Unit 1, Chapter 2, pp. 75-78            Unit 2, Chapter 1, pp.136-140            Unit 3, Chapter 2, pp. 274-279            Unit 4, Chapter 1, pp. 359-360            Unit 4, Chapter 2, pp. 431-434            Unit 5, Chapter 2, pp. 504-505, 523, 529            Unit 6, Chapter 1, pp. 540-544, 591, 597-598, 600</p>

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Scheme and Descriptor	
<p><b>SC.7.N.1.1</b> Define a problem from the seventh 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.</p>	<p>Unit 2, Chapter 1 pp. 134-154, 159-176  Unit 4, Chapter 2, pp. 370-374, 380-386, 398-403, 431-434  Unit 5, Chapter 1, pp. 481-482</p>
<p><b>SC.7.N.1.2</b> Differentiate replication (by others) from repetition (multiple trials).</p>	<p>Unit 1, Chapter 1, pp. 10-11, 20-24  Unit 4, Chapter 1, pp. 349-350, 358, 361-363  Unit 4, Chapter 2, pp. 388, 392-393  Unit 5, Chapter 2, pp. 504-505  Unit 6, Chapter 1, pp. 540, 541</p>
<p><b>SC.7.N.1.3</b> Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.</p>	<p>Unit 1, Chapter 1, pp. 8-34  Unit 2, Chapter 2, pp. 205-208, 215-216  Unit 4, Chapter 2, p. 443</p>
<p><b>SC.7.N.1.4</b> Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.</p>	<p>Unit 1, Chapter 1, pp. 22-27, 37-38  Unit 1, Chapter 2, pp. 48-52, 59, 68, 81, 83  Unit 1, Chapter 3, pp. 102-104, 120  Unit 2, Chapter 2, pp. 196, 205-206, 215  Unit 3, Chapter 2, pp. 275-276, 329  Unit 4, Chapter 2, pp. 432, 443  Unit 5, Chapter 2, pp. 504-505  How To, pp. 689-690</p>
<p><b>SC.7.N.1.5</b> Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.</p>	<p>Unit 1, Chapter 2, pp. 42-46  Unit 1, Chapter 3, pp. 88-90, 94, 108  Unit 2, Chapter 1, pp. 134-140, 148-154, 159-176  Unit 3, Chapter 2, pp. 275-279  Unit 4, Chapter 1, pp. 348-350, 361-363  Unit 4, Chapter 2, pp. 425-430  Unit 5, Chapter 1, pp. 468-472, 481, 487, 492-493  Unit 6, Chapter 1, p. 541  Unit 6, Chapter 2, pp. 626, 646, 650-651, 655-667</p>
<p><b>SC.7.N.1.6</b> Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.</p>	<p>Unit 1, Chapter 2, pp. 42-46  Unit 2, Chapter 1, pp. 136-140  Unit 2, Chapter 2, pp. 185-187, 189-193, 201  Unit 4, Chapter 1, pp. 350, 362, 363  Unit 4, Chapter 2, pp. 392-393</p>

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<p><b>SC.7.N.1.7</b> Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.</p>	<p>Unit 2, Chapter 2, p. 201            Unit 3, Chapter 2, pp. 277-279            Unit 4, Chapter 1, pp. 346-350, 361-363            Unit 4, Chapter 2, pp. 392-393            Unit 6, Chapter 1, pp 541, 597-601            Unit 6, Chapter 2, pp. 626, 656</p>
<p><b>SC.8.N.1.1</b> Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations 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.</p>	<p>Unit 1, Chapter 2, pp. 53-59, 60-68            Unit 1, Chapter 3, pp.100-113            Unit 3, Chapter 2, pp. 280-283, 330, 335-336            Unit 4, Chapter 1, pp. 344-360            Unit 4, Chapter 2, pp. 365-374, 380-386, 392-393, 431-434            Unit 5, Chapter 1, pp. 453-477, 481-485            Unit 5, Chapter 2, pp. 504-510            Unit 6, Chapter 1, pp. 545-548            Unit 6, Chapter 2, pp. 657-667</p>
<p><b>SC.8.N.1.2</b> Design and conduct a study using repeated trials and replication.</p>	<p>Unit 2, Chapter 2, pp. 196-199, 205-208            Unit 3, Chapter 2, pp. 275, 277-304            Unit 4, Chapter 2, pp. 431-434, 443            Unit 5, Chapter 2, pp. 504-505</p>
<p><b>SC.8.N.1.3</b> Use phrases such as “results support” or “fail to support” in science, understanding that science does not offer conclusive ‘proof’ of a knowledge claim.</p>	<p>Unit 1, Chapter 1, pp. 20, 28-35, 39-40            Unit 1, Chapter 2, pp. 45, 49-51, 59, 66, 68, 81, 83            Unit 1, Chapter 3, pp. 103, 111-113            Unit 2, Chapter 1, pp. 143-146, 153-154            Unit 2, Chapter 2, pp. 199, 208            Unit 3, Chapter 1, pp. 228, 230, 233, 237, 239, 242-243, 246-247            Unit 3, Chapter 2, pp. 275-276, 277-279, 280-282, 287-289            Unit 4, Chapter 1, pp. 349-350, 353, 357-358            Unit 4, Chapter 2, pp. 374, 379, 386, 392, 433-434            Unit 5, Chapter 1, pp. 457-458, 464, 475, 477, 479-480, 482, 484-486            Unit 5, Chapter 2, pp. 503, 505, 509, 512-514, 516, 523            Unit 6, Chapter 1, pp. 542, 551, 567, 570, 572, 576, 580-582, 587-591            Unit 6, Chapter 2, pp. 634, 653, 654            How to, pp. 691, 692-696</p>

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<p><b>SC.8.N.1.4</b> Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.</p>	<p>Unit 1, Chapter 1, pp. 12-15, 20-24            Unit 2, Chapter 2, pp. 215-216            Unit 3, Chapter 2, pp. 275-276            Unit 6, Chapter 1, p. 598</p>
<p><b>SC.8.N.1.5</b> Analyze the methods used to develop a scientific explanation as seen in different fields of science.</p>	<p>Unit 2, Chapter 2, pp. 201-204            Unit 4, Chapter 1, pp. 348-350</p>
<p><b>SC.8.N.1.6</b> Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.</p>	<p>Unit 1, Chapter 3, pp. 99-104, 105-108            Unit 2, Chapter 1, pp. 150-154            Unit 2, Chapter 2, pp. 201-208, 215-216            Unit 3, Chapter 2, pp. 275-283            Unit 4, Chapter 1, pp. 350, 361-363            Unit 4, Chapter 2 pp. 431-434            Unit 6, Chapter 1, pp. 541, 591            Unit 6, Chapter 2, p. 654</p>
<p><b>Big Idea 2: The Characteristics of Scientific Knowledge</b></p>	
<p><b>A:</b> Scientific knowledge is based on empirical evidence, and is appropriate for understanding the natural world, but it provides only a limited understanding of the supernatural, aesthetic, or other ways of knowing, such as art, philosophy, or religion.</p>	
<p><b>B:</b> Scientific knowledge is durable and robust, but open to change.</p>	
<p><b>C:</b> Because science is based on empirical evidence it strives for objectivity, but as it is a human endeavor the processes, methods, and knowledge of science include subjectivity, as well as creativity and discovery.</p>	
<p><b>SC.6.N.2.1</b> Distinguish science from other activities involving thought.</p>	<p>Unit 1, Chapter 2, p. 42            Unit 2 Chapter 1, pp. 134-135            Unit 6, Chapter 1, pp 540-541            Unit 6, Chapter 2, p. 624</p>
<p><b>SC.6.N.2.2</b> Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered</p>	<p>Unit 3, Chapter 2, pp. 278, 322            Unit 4, Chapter 1, pp. 350, 360, 363            Unit 4, Chapter 2, p. 393, 443            Unit 5, Chapter 2, p. 514            Unit 6, Chapter 1, p. 541            Unit 6, Chapter 2, pp. 626, 656</p>

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<p><b>SC.6.N.2.3</b> Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.</p>	<p>Unit 1, Chapter 1, p. 14            Unit 1, Chapter 2, p. 62            Unit 2, Chapter 1, p. 140            Unit 3, Chapter 1, p. 228            Unit 3, Chapter 2, pp. 278, 286, 298, 320, 322            Unit 4, Chapter 1, p. 360            Unit 4, Chapter 2, pp. 374, 376, 384, 392-393            Unit 5, Chapter 1, pp. 476, 480, 484            Unit 5, Chapter 2, pp. 508, 517-518, 522            Unit 6, Chapter 1, pp. 543, 580, 597, 598, 608            Unit 6, Chapter 2, pp. 626, 656</p>
<p><b>SC.7.N.2.1</b> Identify an instance from the history of science in which scientific knowledge has changed when new evidence or new interpretations are encountered.</p>	<p>Unit 1, Chapter 2, p. 76            Unit 3, Chapter 2, pp. 278, 279, 286, 306, 322            Unit 4, Chapter 2, pp. 384, 393            Unit 5, Chapter 1, pp. 458, 476, 480            Unit 5, Chapter 2, p. 514            Unit 6, Chapter 1, pp. 597-601            Unit 6, Chapter 2, pp. 626, 656</p>
<p><b>SC.8.N.2.1</b> Distinguish between scientific and pseudoscientific ideas.</p>	<p>Unit 6, Chapter 1, pp. 540-542</p>
<p><b>SC.8.N.2.2</b> Discuss what characterizes science and its methods</p>	<p>Unit 1, Chapter 2, pp. 42-46            Unit 1, Chapter 3, pp. 88-90, 93-94, 98, 103-108, 111-112            Unit 4, Chapter 1, pp. 350, 361-363            Unit 4, Chapter 2, pp. 393, 431-434            Unit 5, Chapter 2, pp. 504-505            Unit 6, Chapter 1, pp. 540-542            Unit 6, Chapter 2, pp. 622, 654</p>
<p><b>Big Idea 3: The Role of Theories, Laws, Hypotheses, and Models</b></p>	
<p>The terms that describe examples of scientific knowledge, for example: “theory,” “law,” “hypothesis,” and “model” have very specific meanings and functions within science.</p>	
<p><b>SC.6.N.3.1</b> 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.</p>	<p>Unit 3, Chapter 2, p. 279            Unit 6, Chapter 1, pp. 540-542, 552-567, 573-582, 591            Unit 6, Chapter 2, pp. 626, 654</p>

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Scheme and Descriptor	
<b>SC.6.N.3.2</b> 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.	Unit 3, Chapter 2, pp. 279 Unit 4, Chapter 1, pp. 358, 360, 363 Unit 4, Chapter 2, p. 393 Unit 5, Chapter 2, p. 504
<b>SC.6.N.3.3</b> Give several examples of scientific laws.	Unit 3, Chapter 2, p. 279 Unit 4, Chapter 1, p. 358, 360 Unit 4, Chapter 2, pp. 388, 392-392 Unit 5, Chapter 1, pp. 478-480, 482-486 Unit 5, Chapter 2, pp 504-505 Unit 6, Chapter 2, pp. 635-646, 654-656
<b>SC.6.N.3.4</b> Identify the role of models in the context of the sixth grade science benchmarks.	Unit 3, Chapter 2, p. 278 Unit 6, Chapter 2, pp. 622-634, 636-642, 644, 647-667
<b>SC.7.N.3.1</b> Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them.	Unit 4, Chapter 2, pp. 392-393 Unit 6, Chapter 1, pp. 540-542, 552-567, 573, 591 Unit 6, Chapter 2, pp. 622-646
<b>SC.7.N.3.2</b> Identify the benefits and limitations of the use of scientific models.	Unit 6, Chapter 2, pp. 627-629, 654
<b>SC.8.N.3.1</b> Select models useful in relating the results of their own investigations.	Unit 6, Chapter 2, pp. 627-629, 654
<b>SC.8.N.3.2</b> Explain why theories may be modified but are rarely discarded.	Unit 3, Chapter 2, pp. 277-279 Unit 4, Chapter 2, pp. 392-393 Unit 5, Chapter 2, p. 504 Unit 6, Chapter 1, pp. 540-542
<b>Big Idea 4: Science and Society</b>	
As tomorrow's citizens, students should be able to identify issues about which society could provide input, formulate scientifically investigable questions about those issues, construct investigations of their questions, collect and evaluate data from their investigations, and develop scientific recommendations based upon their findings.	
<b>SC.8.N.4.1</b> Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	Unit 4, Chapter 2, pp. 395-397, 415-424 Unit 5, Chapter 2, pp. 504, 508, 522 Unit 6, Chapter 1, pp. 586, 608, 610 Unit 6, Chapter 2, pp. 636, 650
<b>SC.8.N.4.2</b> Explain how political, social, and economic concerns can affect science, and vice versa.	Unit 4, Chapter 2, pp. 420, 422, 424, 442 Unit 6, Chapter 1, p. 610 Unit 6, Chapter 2, p. 636

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**Mary-Lynn Jensen, Ph.D.**

**[mkjensen@herffjones.com](mailto:mkjensen@herffjones.com)**

**Toll Free: 888-435-8463**

**Mobile: 407-963-6107**

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**Pat Brzycki**

**[pabrzycki@herffjones.com](mailto:pabrzycki@herffjones.com)**

**Mobile: 941-228-1765**

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