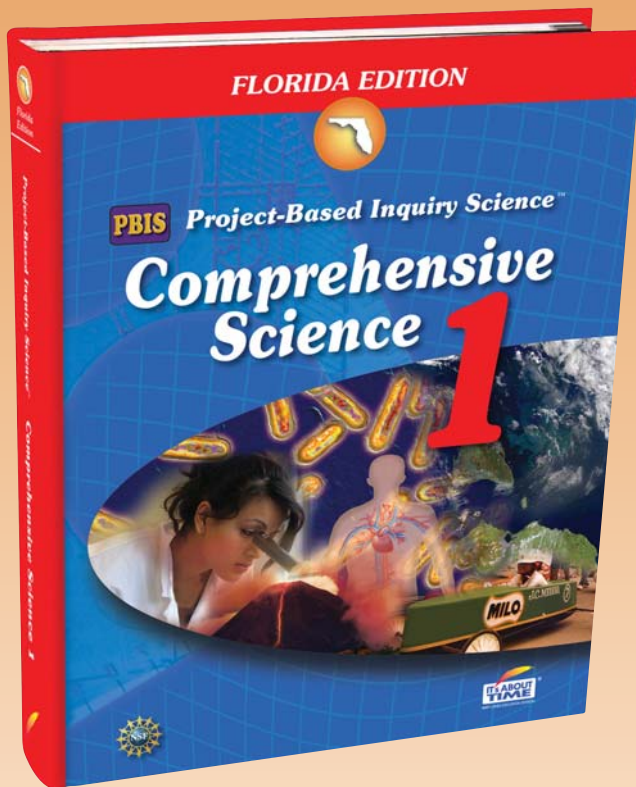




## Florida Edition

# Project-Based Inquiry Science Comprehensive Science 1

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



Subject:	Science
Grade Level:	6–8
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# Correlation of Florida Next Generation Sunshine State Standards to *Project-Based Inquiry Science: Comprehensive 2*

Florida Next Generation Sunshine State Standards	<i>Project-Based Inquiry Science: Comprehensive Science 1</i>
Scheme and Descriptor	
<b>Strand: Health Literacy: CONCEPTS</b>	
<b>Standard 1:</b> Comprehend concepts related to health promotion and disease prevention to enhance health.	
<b>HE.6.C.1.3</b> Identify environmental factors that affect personal health.	<b>Weather Watch</b> Introduction p. 3 LS2: pp. 77-78 Address the Big Challenge: pp. 263-280
<b>HE.6.C.1.8</b> Explain how body systems are impacted by hereditary factors and infectious agents.	<b>Good Friends and Germs</b> LS3: pp. 121-122, 124-125, 128-129
<b>Strand: Literary Analysis</b>	
<b>Standard 2:</b> Nonfiction	
<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).	<p><b>Digging In</b> LS1: pp. 6-7, 10, 12, 18, 24 LS2: pp. 30, 33, 37-38 LS3: pp. 48, 50-52, 54, 62-63, 67, 70-71, 82, 86, 93, 102, 105, 108, 111, 112-113, 114, 116, 118-119, 120-123</p> <p><b>Weather Watch</b> Introduction: pp. 7-8 LS1: pp. 22, 32-33, 55, 58, 60 LS2: pp. 66, 75, 95, 99, 107-108, 118-119, 122, 124, 126 LS3: pp. 134, 154-155, 163, 165-166 LS4: pp. 181, 191-194, 200-201, 204-205, 211, 213, 225-227, 235, 237, 240-241, 243-244, 253-254, 258-259 Address the Big Challenge: pp. 274-278</p> <p><b>Good Friends and Germs</b> Introduction: pp. 7-8, 10, 12-13, 17, 19 LS2: pp. 22, 26, 31-36, 44, 47-49, 57, 72, 73-76 LS3: pp. 87, 88-89, 91-92, 95-97, 99-100, 111-112, 117, 119-120, 125-126, 129-133, 134 LS4: pp. 144-145, 151, 154, 155-156 Answer the Big Question: pp. 158-161</p> <p><b>Vehicles in Motion</b> LS1: pp. 7, 10-12, 16, 18, 24, 28-29, 32-33, 50-56, 68-70, 73, 77, 84-87, 89-90 LS2: pp. 96, 99, 101-102, 108-109, 111-112, 121-122, 130, 134-135, 137, 142-143, 152-153, 156 LS3: pp. 162, 176-178 Address the Big Challenge: pp. 201-202</p>

**Scheme and Descriptor**

**Strand: Writing Applications**

**Standard 2: Informative**

**LA.6.4.2.2**

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.

**Digging In**

LS1: pp. 6-7, 10, 12, 18, 24,

LS2: 33, 37-38

LS3: pp. 48, 50-52, 54, 62-63, 67, 82, 86, 93, 102, 105, 108, 111, 112-113, 116, 118-119, 120-123, 132

**Weather Watch**

Introduction: pp. 7-8

LS1: pp. 22, 32-33, 55, 58, 60

LS2: pp. 66, 75, 95, 99, 107-108, 118-119, 122, 124, 126

LS3: pp. 134, 154-155, 163, 165-166

LS4: pp. 181, 191-194, 200-201, 204-205, 211, 213, 225-227, 235, 237, 240-241, 243-244, 253-254, 258-259

Address the Big Challenge: pp. 274-278

**Good Friends and Germs**

Introduction: pp. 7-8, 10, 12-13, 17, 19

LS2: pp. 22, 26, 31-36, 44, 47-49, 57, 72, 73-76

LS3: pp. 87, 88-89, 91-92, 95-97, 99-100, 111-112, 117, 119-120, 125-126, 129-133, 134

LS4: pp. 144-145, 151, 154, 155-156

Answer the Big Question: 158-161

**Vehicles in Motion**

LS1: pp. 7, 10-12, 16, 18, 24, 28-29, 32-33, 50-56, 68-70, 73, 77, 84-87, 89-90

LS2: pp. 96, 99, 101-102, 108, 112, 111-112, 121-122, 130, 134-135, 137, 142-143, 152-153, 156

LS3: pp. 162, 176-178

Address the Big Challenge: 201-202

**Big Idea 3: Write, interpret, and use mathematical expressions and equations.**

**MA.6.A.3.6**

Construct and analyze tables, graphs, and equations to describe linear functions and other simple relations using both common language and algebraic notation.

**Digging In**

LS2: pp. 32-33

**Weather Watch**

LS2: pp. 81-82

**Vehicles in Motion**

LS1: pp. 67-70

**Using Mathematics to Record and Analyze Data**

**Supporting Idea 6: Data Analysis**

**Data Analysis**

**MA.6.S.6.2**

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.

**Good Friends and Germs**

LS3: pp. 90-92, 101-104

**Vehicles in Motion**

LS1: pp. 32-33

**Using Mathematics to Record and Analyze Data**

**Scheme and Descriptor**

**Big Idea 6: Earth Structures**

Over geologic time, internal and external sources of energy have continuously altered the features of Earth by means of both constructive and destructive forces. All life, including human civilization, is dependent on Earth's internal and external energy and material resources.

**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.

**Digging In**

LS3: pp. 47-48, 52, 55-62, 64-66, 69-71, 77, 78, 84-85, 87-91, 106-108, 128-131

**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.

**Digging In**

LS3: pp. 128-132

**Big Idea 7: Earth Systems and Patterns**

The scientific theory of the evolution of Earth states that changes in our planet are driven by the flow of energy and the cycling of matter through dynamic interactions among the atmosphere, hydrosphere, cryosphere, geosphere, and biosphere, and the resources used to sustain human civilization on Earth.

**SC.6.E.7.1**

Differentiate among radiation, conduction, and convection, the three mechanisms by which heat is transferred through Earth's system.

**Weather Watch**

LS2: pp. 72-74, 76  
LS3: pp. 144, 149, 150  
LS4: pp. 196-203, 206-210, 219-220, 224-225

**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.

**Weather Watch**

LS3: pp. 136, 139, 140

**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.

**Weather Watch**

LS1: pp. 19-21, 23, 24-28, 30, 34, 55-56  
LS2: pp. 62-63, 66, 67-74, 90-101, 102-107  
LS3: pp. 129-133, 158-159, 162  
LS4: pp. 170-181, 188-213, 219-241, 256-262

**SC.6.E.7.4**

Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.

**Weather Watch**

LS4: pp. 260-262

**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.

**Weather Watch**

LS2: pp. 72-74, 76, 83, 86-87, 90, 102-103, 110-111, 115-116, 120  
LS3: pp. 144-145, 149, 150, 156  
LS4: pp. 188-190, 196-203, 207-210, 220-226

**SC.6.E.7.6**

Differentiate between weather and climate.

**Weather Watch**

LS1: pp. 19-20, 36-37, 57  
LS4: pp. 224-225  
Address the Big Challenge: p. 281

<b>Florida Next Generation Sunshine State Standards</b>	<b><i>Project-Based Inquiry Science: Comprehensive Science 1</i></b>
<b>Scheme and Descriptor</b>	
<b>SC.6.E.7.7</b> Investigate how natural disasters have affected human life in Florida.	<b>Weather Watch</b> Introduction: p. 3 LS1: pp. 59-60 LS2: pp. 123-126 LS3: pp. 166-168 LS4: pp. 250-252 Address the Big Challenge: pp. 263-280
<b>SC.6.E.7.8</b> Describe ways human beings protect themselves from hazardous weather and sun exposure.	<b>Weather Watch</b> Introduction: p. 4-6 LS2: pp. 77-78, 117 Address the Big Challenge: pp. 263-280
<b>SC.6.E.7.9</b> Describe how the composition and structure of the atmosphere protects life and insulates the planet.	<b>Weather Watch</b> LS4: pp. 214-218
<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.	<b>Vehicles in Motion</b> LS2: pp. 94-95
<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.	<b>Vehicles in Motion</b> LS1: pp. 58-60
<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.	

<p align="center"><b>Florida Next Generation Sunshine State Standards</b></p>	<p align="center"><b><i>Project-Based Inquiry Science: Comprehensive Science 1</i></b></p>
<p align="center"><b>Scheme and Descriptor</b></p>	
<p><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.</p>	<p><b>Vehicles in Motion</b> LS1: pp. 17, 36, 37-38, 44-45, 47, 74-76, 78-82 LS2: pp. 92, 100-101, 115-117, 118-123, 125-126, 131-132, 155-156 Address the Big Challenge: pp. 201-203</p>
<p><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.</p>	<p><b>Digging In</b> LS1: pp. 19-20 <b>Vehicles in Motion</b> LS1: pp. 17, 76, 79-80, 82</p>
<p><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.</p>	<p><b>Vehicles in Motion</b> LS1: pp. 78, 80-81 LS2: pp. 99, 100-101, 125-126 LS3: pp. 158-159, 163-168, 180-182, 189-191</p>
<p align="center"><b>Big Idea 14 : Organization and Development of Living Organisms</b></p>	
<p><b>A:</b> All living things share certain characteristics.</p>	
<p><b>B:</b> The scientific theory of cells, also called cell theory, is a fundamental organizing principle of life on Earth.</p>	
<p><b>C:</b> Life can be organized in a functional and structural hierarchy.</p>	
<p><b>D:</b> Life is maintained by various physiological functions essential for growth, reproduction, and homeostasis.</p>	
<p><b>SC.6.L.14.1</b> 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.</p>	<p><b>Good Friends and Germs</b> LS3: pp. 88-89</p>
<p><b>SC.6.L.14.2</b> 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.</p>	<p><b>Good Friends and Germs</b> LS2: pp. 27-29 LS3: pp. 88-89, 121-123, 125</p>
<p><b>SC.6.L.14.3</b> 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.</p>	<p><b>Good Friends and Germs</b> LS2: pp. 39-40</p>
<p><b>SC.6.L.14.4</b> 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.</p>	<p><b>Good Friends and Germs</b> LS2: pp. 28-29</p>

<b>Florida Next Generation Sunshine State Standards</b>	<b><i>Project-Based Inquiry Science: Comprehensive Science 1</i></b>
<b>Scheme and Descriptor</b>	
<b>SC.6.L.14.5</b> 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.	<b>Good Friends and Germs</b> LS3: pp. 86, 94, 96-97, 100, 101, 104, 105, 108-111, 113, 117-119, 121-122, 130, 134-142
<b>SC.6.L.14.6</b> Compare and contrast types of infectious agents that may infect the human body, including viruses, bacteria, fungi, and parasites.	<b>Good Friends and Germs</b> LS1: pp. 16-17 LS2: pp. 23-25, 37, 40, 55-57, 58-60, 64-71 LS3: pp. 98-99, 115, 117-118, 121-122, 136, 140-142 LS4: pp. 144, 146-148, 152-154 Answer the Big Question: pp. 158-160
<b>Big Idea 15: Diversity and Evolution of Living Organisms</b>	
<b>A:</b> The theory of evolution is the organizing principle of life science.	
<b>B:</b> The scientific theory of evolution is supported by multiple forms of evidence.	
<b>C:</b> Natural selection is a primary mechanism leading to change over time in organisms.	
<b>SC.6.L.15.1</b> 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.	<b>Good Friends and Germs</b> LS2: pp. 77-79
<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.	

<b>Florida Next Generation Sunshine State Standards</b>	<b><i>Project-Based Inquiry Science: Comprehensive Science 1</i></b>
<b>Scheme and Descriptor</b>	
<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><b>Digging In</b> LS3: pp. 69-76, 94-99, 100-105</p> <p><b>Weather Watch</b> LS2: pp. 62-66 LS3: pp. 129-134 LS4: pp. 170-179, 196-200, 207-209</p> <p><b>Good Friends and Germs</b> LS1: pp. 11-15 LS2: pp. 41-44, 45-50, 51-54 LS3: pp. 90-93, 101-104</p> <p><b>Vehicles in Motion</b> LS1: pp. 19-30, 31-34, 57-63, 65-73 LS2: pp. 103-113, 115, 118-121, 127-130 LS3: pp. 169-170, 173-179</p>
<p><b>SC.6.N.1.2</b> Explain why scientific investigations should be replicable.</p>	<p><b>What Is Science?</b> WS pp. 1-2</p> <p><b>Digging In</b> LS2: pp. 34-36, 37-38, 42</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><b>What Is Science?</b> WS pp. 1-2</p> <p><b>Digging In</b> LS3: pp. 53, 55-63</p> <p><b>Weather Watch</b> LS3: p. 152</p> <p><b>Good Friends and Germs</b> LS1: p. 13</p> <p><b>Vehicles in Motion</b> LS2: pp. 97, 99-101, 134-137, 143-145</p>

<b>Florida Next Generation Sunshine State Standards</b>	<b><i>Project-Based Inquiry Science: Comprehensive Science 1</i></b>
<b>Scheme and Descriptor</b>	
<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><b>Digging In</b> LS2: pp. 32, 37-38 LS3: pp. 94, 99, 103-104</p> <p><b>Weather Watch</b> Introduction: pp. 5-8 LS1: pp. 18, 33, 50-51, 56-58 LS2: pp. 95-98, 100, 113, 121 LS3: pp. 142, 155, 166 LS4: pp. 180, 187, 211, 221, 240, 243, 258 Address the Big Challenge: pp. 275-280</p> <p><b>Good Friends and Germs</b> LS1: pp. 10, 13 LS2: pp. 22, 31-33, 43-44, 47-49, 51-54 LS3: pp. 92-93, 103-104 LS4: pp. 150-151</p> <p><b>Vehicles in Motion</b> LS1: pp. 24-25, 27-29, 32-34, 35, 53-55, 58, 61-63, 65-71, 86 LS2: pp. 109-113 LS3: pp. 173-174, 177-178, 182 Address the Big Challenge: pp. 202-203</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><b>What Is Science?</b> WS p. 1</p> <p><b>Digging In</b> LS3: pp. 78-81, 83, 106-109</p> <p><b>Weather Watch</b> LS1: pp. 23-31</p> <p><b>Good Friends and Germs</b> LS4: pp. 155-156</p> <p><b>Vehicles in Motion</b> LS1: pp. 21-22, 23-28, 48-49 LS2: pp. 107-108, 110-113 LS3: pp. 169-170, 174-179</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><b>What Is Science?</b> WS pp. 1-4</p> <p><b>Digging In</b> LS2: p. 31 LS3: p. 94 Answer the Big Question: pp. 124-127</p>

Florida Next Generation Sunshine State Standards	<i>Project-Based Inquiry Science: Comprehensive Science 1</i>
Scheme and Descriptor	
<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><b>What Is Science?</b> WS pp. 4-5</p> <p><b>Digging In</b> LS1: p. 23</p> <p><b>Vehicles in Motion</b> LS1: p. 88 LS2: pp. 155-156 LS3: pp. 194, 198</p>
<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><b>What Is Science?</b> WS p. 6</p> <p><b>Good Friends and Germs</b> LS2: pp. 59-60</p> <p><b>Vehicles in Motion</b> LS2: pp. 91, 154 LS3: p. 184</p>
<p><b>Big Idea 3: The Role of Theories, Laws, Hypotheses, and Models</b> <b>The terms that describe examples of scientific knowledge, for example: “theory,” “law,” “hypothesis,” and “model” have very specific meanings and functions within science.</b></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><b>What Is Science?</b> WS pp. 4-5</p>
<p><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.</p>	<p><b>What Is Science?</b> WS pp. 4-5</p> <p><b>Vehicles in Motion</b> LS2: p. 154</p>
<p><b>SC.6.N.3.3</b> Give several examples of scientific laws.</p>	<p><b>What Is Science?</b> WS pp. 4-5</p> <p><b>Vehicles in Motion</b> LS2: p. 154</p>
<p><b>SC.6.N.3.4</b> Identify the role of models in the context of the sixth grade science benchmarks.</p>	<p><b>Digging In</b> LS2: pp. 31 LS3: pp. 94-99 Answer the Big Question: p. 127</p> <p><b>Weather Watch</b> LS2: p. 79 LS3: pp. 136-137, 139</p> <p><b>Good Friends and Germs</b> LS1: p. 19</p>

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