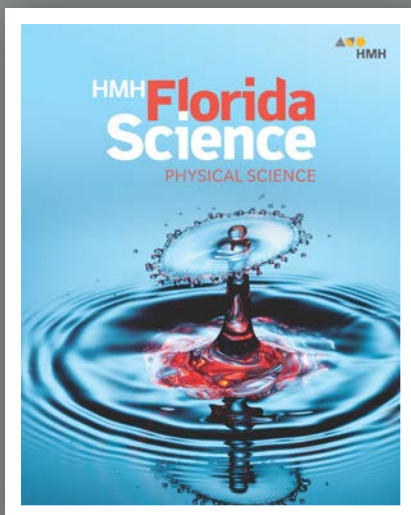


Correlation to the  
Florida Course Description for  
M/J Physical Science  
Course Code 2003010



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Physical Science  
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2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)

BID ID:	<u>3271</u>
SUBMISSION TITLE:	<u>HMH Florida Science: Physical Science ©2019</u>
GRADE LEVEL:	<u>6–8</u>
COURSE TITLE:	<u>M/J Physical Science</u>
COURSE CODE:	<u>2003010</u>
ISBN:	<u>9781328955760'</u>
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BENCHMARK CODE	BENCHMARK	LESSONS WHERE STANDARD/BENCHMARK IS DIRECTLY ADDRESSED IN MAJOR TOOL (MOST IN-DEPTH COVERAGE LISTED FIRST) (Include the SE and TE with the page numbers of lesson, a link to lesson, or other identifier for easy lookup by reviewers.)
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.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37; Unit 1, Lesson 4, pp. 38–47; Unit 1 Think Science, pp. 48–49; Unit 5 Think Science, pp. 322–323 <b>TE:</b> Unit 1, Lesson 3, pp. 42–57; Unit 1, Lesson 4, pp. 58–71; Unit 1 Think Science, pp. 72–73; Unit 5 Think Science, pp. 430–431  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations; Unit 1, Lesson 4, Representing Data; Unit 1 Think Science: Making Conclusions from Evidence; Unit 5 Think Science: Interpreting Graphs <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations; Unit 1, Lesson 4, Representing Data; Unit 1 Think Science: Making Conclusions from Evidence; Unit 5 Think Science: Interpreting Graphs  Many labs address this benchmark, including the following: <b>Lab(s):</b> Unit 1, Lesson 3 Quick Lab: How Machines Help; Unit 1, Lesson 4 Quick Lab: Modeling Eye Images; Unit 1, Lesson 5 Quick Lab: Design a Game about Goals; Unit 1, Lesson 6 Quick Lab: Defining a Problem; Unit 1 Exploration Lab: Measuring Speed; Unit 5, Lesson 2 Quick Lab: Free-Fall Distances; Unit 5, Lesson 4 Quick Lab: Net Force  <b>Virtual Lab(s):</b> Evaluating an Investigation

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.6.N.1.2	Explain why scientific investigations should be replicable.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37 <b>TE:</b> Unit 1, Lesson 3, pp. 42–57  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations  <b>Lab(s):</b> Unit 1, Lesson 3 Quick Lab: How Machines Help  <b>Virtual Lab(s):</b> Evaluating an Investigation
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.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37 <b>TE:</b> Unit 1, Lesson 3, pp. 42–57  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations  <b>Virtual Lab(s):</b> Evaluating an Investigation
SC.6.N.1.4	Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37; Unit 5 STEM, pp. 304–307 <b>TE:</b> Unit 1, Lesson 3, pp. 42–57; Unit 5 STEM, pp. 410–413  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations; Unit 5 STEM: Engineering & Technology <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations; Unit 5 STEM: Engineering & Technology  <b>Virtual Lab(s):</b> Unit 1, Lesson 3, Planning Investigations
SC.6.N.1.5	Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.	<b>SE:</b> Unit 1, Lesson 1, pp. 4–13; Unit 1 Think Science, pp. 48–49 <b>TE:</b> Unit 1, Lesson 1, pp. 14–27; Unit 1 Think Science, pp. 72–73  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science?; Unit 1 Think Science: Making Conclusions from Evidence <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?; Unit 1 Think Science: Making Conclusions from Evidence  <b>Lab(s):</b> Unit 5, Lesson 1 Quick Lab: Bungee Jumping; Unit 1, Lesson 1 Quick Lab: Pendulum Energy

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.6.N.2.1	Distinguish science from other activities involving thought.	<p><b>SE:</b> Unit 1, Lesson 1, pp. 4–13; Unit 2 Think Science, pp. 98–99  <b>TE:</b> Unit 1, Lesson 1, pp. 14–27; Unit 2 Think Science, pp. 142–143</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science?; Unit 2 Think Science: Determining Relevant Information  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?; Unit 2 Think Science: Determining Relevant Information</p> <p>Many labs address this benchmark, including the following:  <b>Lab(s):</b> Unit 1, Lesson 1 Quick Lab: Science Charades; Unit 2 Exploration Lab: Identifying Unknown Samples</p>
SC.6.N.2.2	Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.	<p><b>SE:</b> Unit 1, Lesson 2, pp. 14–23  <b>TE:</b> Unit 1, Lesson 2, pp. 28–41</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge</p> <p><b>Lab(s):</b> Unit 1, Lesson 1 Quick Lab: Science Charades; Unit 1, Lesson 1 Quick Lab: What Is the Process?; Unit 1, Lesson 2 Quick Lab: Theory or Claim?; Unit 1, Lesson 6 Quick Lab: Technology in Science</p>
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.	<p><b>SE:</b> Unit 1, Lesson 1, pp. 4–13; Unit 1, Lesson 5, pp. 50–59; Unit 5, People in Science, pp. 346–347  <b>TE:</b> Unit 1, Lesson 1, pp. 14–27; Unit 1, Lesson 5, pp. 74–87; Unit 5 People in Science, pp. 460–461</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, Scientific Knowledge; Unit 1, Lesson 5, Science in Society; Unit 5 People in Science: Steve Okamoto  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, Scientific Knowledge; Unit 1, Lesson 5, Science in Society; Unit 5 People in Science: Steve Okamoto</p> <p><b>Lab(s):</b> Unit 1, Lesson 5 Quick Lab: Which Scientist Am I?; Unit 1, Lesson 5 Quick Lab: Design a Game about Goals; Unit 1 STEM La:, Investigate Digital</p>
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.	<p><b>SE:</b> Unit 1, Lesson 2, pp. 14–23; Unit 2, Lesson 4, pp. 132–140  <b>TE:</b> Unit 1, Lesson 2, pp. 28–41; Unit 2, Lesson 4, pp. 180–193</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 2, Lesson 4, States of Matter  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 2, Lesson 4, States of Matter</p> <p><b>Lab(s):</b> Unit 1, Lesson 2 Quick Lab: Theory or Claim?; Unit 2, Lesson 4 Quick Lab: Boiling Water Without Heating It</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

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.	<p><b>SE:</b> Unit 1, Lesson 2, pp. 14–23  <b>TE:</b> Unit 1, Lesson 2, pp. 28–41</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge</p> <p>Many labs address this benchmark, including the following:  <b>Lab(s):</b> Unit 1 Exploration Lab: Scientific Law Game; Unit 5, Lesson 4 Quick Lab: Exploring Inertia</p>
SC.6.N.3.3	Give several examples of scientific laws.	<p><b>SE:</b> Unit 1, Lesson 2, pp. 14–23; Unit 5, Lesson 1, pp. 294–303 ; Unit 5, Lesson 4, pp. 332–345  <b>TE:</b> Unit 1, Lesson 2, pp. 28–41; Unit 5, Lesson 1, pp. 396–409; Unit 5, Lesson 4, pp. 444–459</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 5, Lesson 1, Kinetic and Potential Energy; Unit 5, Lesson 4, Forces  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 5, Lesson 1, Kinetic and Potential Energy; Unit 5, Lesson 4, Forces</p> <p><b>Lab(s):</b> Unit 1, Lesson 2 Quick Lab: Hooke's Law; Unit 5, Lesson 3 Quick Lab: Centripetal Force; Unit 5, Lesson 4 Quick Lab: First Law of Skateboarding; Unit 5 Exploration Lab: Race to the Bottom; Unit 5 STEM Lab: Designing a Simple Device; Unit 5 STEM Lab: Newton's Laws of Motion</p>
SC.6.N.3.4	Identify the role of models in the context of the sixth grade science benchmarks.	<p><b>SE:</b> Unit 1, Lesson 4, pp. 38–47  <b>TE:</b> Unit 1, Lesson 4, pp. 58–71</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 4, Representing Data  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 4, Representing Data</p> <p><b>Lab(s):</b> Unit 1, Lesson 4 Quick Lab: Modeling Eye Images; Unit 1, Lesson 4 Quick Lab: Modeling Delta Formation</p> <p><b>Virtual Lab(s):</b> Unit 1, Lesson 4, Models of Landforms; Evaluating an Investigation</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

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.	<p><b>SE:</b> Unit 5, Lesson 1, pp. 294–303  <b>TE:</b> Unit 5, Lesson 1, pp. 396–409</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 5, Lesson 1, Kinetic and Potential Energy  <b>Teacher Digital Management Center:</b> Unit 5, Lesson 1, Kinetic and Potential Energy</p> <p><b>Lab(s):</b> Unit 5 Exploration Lab: Compound Machines; Unit 5 Exploration Lab: Building Windmills; Unit 5 STEM Lab: Designing a Simple Device</p> <p><b>Virtual Lab(s):</b> Unit 5, Lesson 1, Kinetic and Potential Energy</p>
SC.6.P.12.1	Measure and graph distance versus time for an object moving at a constant speed. Interpret this relationship.	<p><b>SE:</b> Unit 5, Lesson 2, pp. 308–321  <b>TE:</b> Unit 5, Lesson 2, pp. 414–429</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 5, Lesson 2, Motion and Speed  <b>Teacher Digital Management Center:</b> Unit 5, Lesson 2, Motion and Speed</p> <p><b>Lab(s):</b> Unit 5, Lesson 2 Quick Lab: Free-Fall Distances; Unit 5 STEM Lab: Investigate Average Speed</p> <p><b>Virtual Lab(s):</b> Unit 5, Lesson 2, Sliding Downhill</p>
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.	<p><b>SE:</b> Unit 5, Lesson 4, pp. 332–345; Unit 5, Lesson 5, pp. 348–357  <b>TE:</b> Unit 5, Lesson 4, pp. 444–459; Unit 5, Lesson 5, pp. 462–475</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 5, Lesson 4, Forces; Unit 5, Lesson 5, Gravity and Motion  <b>Teacher Digital Management Center:</b> Unit 5, Lesson 4, Forces; Unit 5, Lesson 5, Gravity and Motion</p> <p>Many labs address this benchmark, including the following:  <b>Lab(s):</b> Unit 5, Lesson 3 Quick Lab: Centripetal Force; Unit 5, Lesson 3 Quick Lab: Direction of Acceleration; Unit 5, Lesson 4 Quick Lab: Forces on Fluids; Unit 5 STEM Lab: Newton's Laws of Motion</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

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.	<p><b>SE:</b> Unit 5, Lesson 5, pp. 348–357  <b>TE:</b> Unit 5, Lesson 5, pp. 462–475</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 5, Lesson 5, Gravity and Motion  <b>Teacher Digital Management Center:</b> Unit 5, Lesson 5, Gravity and Motion</p> <p><b>Lab(s):</b> Unit 5, Lesson 5 Quick Lab: Gravity and Distance; Unit 5, Lesson 5 Quick Lab: Falling Water</p>
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.	<p><b>SE:</b> Unit 5, Lesson 4, pp. 332–345  <b>TE:</b> Unit 5, Lesson 4, pp. 444–458</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 5, Lesson 4, Forces  <b>Teacher Digital Management Center:</b> Unit 5, Lesson 4, Forces</p> <p><b>Lab(s):</b> Unit 5, Lesson 4 Quick Lab: First Law of Skateboarding; Unit 5, Lesson 4 Quick Lab: Parachutes and Air Resistance; Unit 5, Lesson 3 Quick Lab: Centripetal Force; Unit 5, Lesson 3 Quick Lab: Direction of Acceleration</p> <p><b>Virtual Lab(s):</b> Unit 5, Lesson 4, Kinetic and Potential Energy</p>
SC.7.N.1.1	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><b>SE:</b> Unit 3, Lesson 1, pp. 192–201; Unit 3, Lesson 4, pp. 228–237; Unit 4, Think Science, pp. 268–269; Unit 4, Lesson 3, pp. 270–281  <b>TE:</b> Unit 3, Lesson 1, pp. 256–269; Unit 3, Lesson 4, pp. 302–315; Unit 4, Think Science, pp. 360–361; Unit 4, Lesson 3, pp. 362–375</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 3, Lesson 1, Waves; Unit 3, Lesson 4, Interactions of Light; Unit 4 Think Science: Planning an Investigation; Unit 4, Lesson Thermal Energy and Heat  <b>Teacher Digital Management Center:</b> Unit 3, Lesson 1, Waves; Unit 3, Lesson 4, Interactions of Light; Unit 4 Think Science: Planning an Investigation; Unit 4, Lesson Thermal Energy and Heat</p> <p>Many labs address this banchmark, including the following:  <b>Lab(s):</b> Unit 3, Lesson 4 Quick Lab: Why Is the Sky Blue?; Unit 3 Field Lab: Images from Convex Lenses; Unit 3 STEM Lab: Building a Speaker; Unit 4 STEM Lab: Modeling Geothermal Power</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.7.N.1.2	Differentiate replication (by others) from repetition (multiple trials).	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37 <b>TE:</b> Unit 1, Lesson 3, pp. 42–56  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations
SC.7.N.1.3	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.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37 <b>TE:</b> Unit 1, Lesson 3, pp. 42–56  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations
SC.7.N.1.4	Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.	<b>SE:</b> Unit 1, Lesson 3, pp. 24–37 <b>TE:</b> Unit 1, Lesson 3, pp. 42–56  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 3, Scientific Investigations <b>Teacher Digital Management Center:</b> Unit 1, Lesson 3, Scientific Investigations
SC.7.N.1.5	Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.	<b>SE:</b> Unit 3, People in Science, pp. 212–213 <b>TE:</b> Unit 3, People in Science, pp. 284–285  <b>Student Interactive Digital Curriculum:</b> Unit 3 People in Science: James West <b>Teacher Digital Management Center:</b> Unit 3 People in Science: James West  <b>Lab(s):</b> Unit 1 Exploration Lab: Measuring Speed; Unit 3, Lesson 1 Quick Lab: Seeing Vibrations
SC.7.N.1.6	Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.	<b>SE:</b> Unit 1, Lesson 1, pp. 4–13 <b>TE:</b> Unit 1, Lesson 1, pp. 14–26  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What is Science? <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What is Science?



**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.7.N.1.7	Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.	<b>SE:</b> Unit 1, Lesson 2, pp. 14–23 <b>TE:</b> Unit 1, Lesson 2, pp. 28–40  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge
SC.7.N.2.1	Identify an instance from the history of science in which scientific knowledge has changed when new evidence or new interpretations are encountered.	<b>SE:</b> Unit 1, Lesson 1, pp. 4–13; Unit 1, Lesson 2, pp. 14–23 <b>TE:</b> Unit 1, Lesson 1, pp. 6, 7, 14–26; Unit 1, Lesson 2, pp. 28–40  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 2, Scientific Knowledge <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 2, Scientific Knowledge
SC.7.N.3.1	Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them.	<b>SE:</b> Unit 1, Lesson 2, pp. 14–23; Unit 1, Lesson 5, pp. 50–59 <b>TE:</b> Unit 1, Lesson 2, pp. 28–40; Unit 1, Lesson 5, pp. 74–86  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 1, Lesson 5, Science and Society <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 1, Lesson 5, Science and Society
SC.7.N.3.2	Identify the benefits and limitations of the use of scientific models.	<b>SE:</b> Unit 1, Lesson 4, pp. 38–47 <b>TE:</b> Unit 1, Lesson 4, pp. 58–70  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 4, Representing Data <b>Teacher Digital Management Center:</b> Unit 1, Lesson 4, Representing Data
SC.7.P.10.1	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.	<b>SE:</b> Unit 3, Lesson 3, pp. 214–225 <b>TE:</b> Unit 3, Lesson 3, pp. 286–299  <b>Student Interactive Digital Curriculum:</b> Unit 3, Lesson 3, The Electromagnetic Spectrum <b>Teacher Digital Management Center:</b> Unit 3, Lesson 3, The Electromagnetic Spectrum  <b>Lab(s):</b> Unit 3, Lesson 3 Quick Lab: White Light; Unit 3, Lesson 3 Quick Lab: Modeling Earth's Magnetic Field  <b>Virtual Lab(s):</b> Unit 3, Lesson 3, Mixing Colors

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.7.P.10.2	Observe and explain that light can be reflected, refracted, and/or absorbed.	<p><b>SE:</b> Unit 3, Lesson 4, pp. 228–237  <b>TE:</b> Unit 3, Lesson 4, pp. 302–315</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 3, Lesson 4, Interactions of Light  <b>Teacher Digital Management Center:</b> Unit 3, Lesson 4, Interactions of Light</p> <p><b>Lab(s):</b> Unit 3 STEM Lab: Light Maze</p> <p><b>Virtual Lab(s):</b> Unit 3, Lesson 3, Mixing Colors</p>
SC.7.P.10.3	Recognize that light waves, sound waves, and other waves move at different speeds in different materials.	<p><b>SE:</b> Unit 3, Lesson 2, pp. 202–211; Unit 3, Lesson 4, pp. 228–237  <b>TE:</b> Unit 3, Lesson 2, pp. 270–283; Unit 3, Lesson 4, pp. 302–315</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 3, Lesson 2, Properties of Waves; Unit 3, Lesson 4, Interactions of Light  <b>Teacher Digital Management Center:</b> Unit 3, Lesson 2, Properties of Waves; Unit 3, Lesson 4, Interactions of Light</p> <p><b>Lab(s):</b> Unit 3, Lesson 2 Quick Lab: Waves; Unit 3 Field Lab: Sound Idea; Unit 3 Exploration Lab: Wave Energy and Speed; Unit 3 STEM Lab: Echoes</p>
SC.7.P.11.1	Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.	<p><b>SE:</b> Unit 4, Lesson 2, pp. 260–267; Unit 4, Lesson 3, pp. 270–281  <b>TE:</b> Unit 4, Lesson 2, pp. 348–359; Unit 4, Lesson 3, pp. 362–375</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 4, Lesson 2, Temperature; Unit 4, Lesson 3, Thermal Energy and Heat  <b>Teacher Digital Management Center:</b> Unit 4, Lesson 2, Temperature; Unit 4, Lesson 3, Thermal Energy and Heat</p> <p>Many labs address this benchmark, including the following:  <b>Lab(s):</b> Unit 4, Lesson 2 Quick Lab: Temperature Change; Unit 4, Lesson 3 Quick Lab: Simple Heat Engine; Unit 4 Exploration Lab: Changes of State; Unit 4 STEM Lab: Modeling Geothermal Power</p> <p><b>Virtual Lab(s):</b> Unit 4, Lesson 3, Temperature and Thermal Energy</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.7.P.11.2	Investigate and describe the transformation of energy from one form to another.	<p><b>SE:</b> Unit 4, Lesson 1, pp. 250–259  <b>TE:</b> Unit 4, Lesson 1, pp. 334–347</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 4, Lesson 1, Energy Conversion and Conservation  <b>Teacher Digital Management Center:</b> Unit 4, Lesson 1, Energy Conversion and Conservation</p> <p><b>Lab(s):</b> Unit 4, Lesson 1 Quick Lab: Electrical, Light, and Heat Energy</p> <p><b>Virtual Lab(s):</b> Unit 4, Lesson 1, Insulation Competition</p>
SC.7.P.11.3	Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.	<p><b>SE:</b> Unit 4, Lesson 1, pp. 250–259  <b>TE:</b> Unit 4, Lesson 1, pp. 334–347</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 4, Lesson 1, Energy Conversion and Conservation  <b>Teacher Digital Management Center:</b> Unit 4, Lesson 1, Energy Conversion and Conservation</p> <p><b>Lab(s):</b> Unit 4, Lesson 1 Quick Lab: Conservation of Energy</p> <p><b>Virtual Lab(s):</b> Unit 4, Lesson 1, Insulation Competition</p>
SC.7.P.11.4	Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.	<p><b>SE:</b> Unit 4, Lesson 2, pp. 260–267; Unit 4, Lesson 3, pp. 270–281  <b>TE:</b> Unit 4, Lesson 2, pp. 348–359; Unit 4, Lesson 3, pp. 362–375</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 4, Lesson 2, Temperature; Unit 4, Lesson 3, Thermal Energy and Heat  <b>Teacher Digital Management Center:</b> Unit 4, Lesson 2, Temperature; Unit 4, Lesson 3, Thermal Energy and Heat</p> <p><b>Lab(s):</b> Unit 4, Lesson 2 Quick Lab: Temperature Change; Unit 4, Lesson 2 Quick Lab: Heat Transfer by Conduction; Unit 4, Lesson 3 Quick Lab: Simple Heat Engine; Unit 4 STEM Lab: Modeling Geothermal Power</p> <p><b>Virtual Lab(s):</b> Unit 4, Lesson 3, Temperature and Thermal Energy</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.N.1.1	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><b>SE:</b> Unit 2, Lesson 2, pp. 100–113; Unit 2, Lesson 3, pp. 116–127; Unit 2, Lesson 4, pp. 132–141  <b>TE:</b> Unit 2, Lesson 2, pp. 144–159; Unit 2, Lesson 3, pp. 162–175; Unit 2, Lesson 4, pp. 180–193</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 2, Properties of Matter; Unit 2, Lesson 3, Physical and Chemical Changes; Unit 2, Lesson 4, States of Matter  <b>Teacher Digital Management Center:</b> Unit 2, Lesson 2, Properties of Matter; Unit 2, Lesson 3, Physical and Chemical Changes; Unit 2, Lesson 4, States of Matter</p> <p><b>Lab(s):</b> Unit 2, Lesson 2 Quick Lab: Growing Crystals; Unit 2, Lesson 3 Quick Lab: Physical or Chemical Change?; Unit 2, Lesson 4 Quick Lab: Changing Volumes</p>
SC.8.N.1.2	Design and conduct a study using repeated trials and replication.	<p><b>SE:</b> Unit 1, Lesson 2, pp. 14–23; Unit 1, Lesson 3, pp. 24–37  <b>TE:</b> Unit 1, Lesson 2, pp. 28–40; Unit 1, Lesson 3, pp. 42–56</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 1, Lesson 3, Scientific Investigations  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge; Unit 1, Lesson 3, Scientific Investigations</p>
SC.8.N.1.3	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><b>SE:</b> Unit 1, Lesson 1, pp. 4–13; Unit 1, Lesson 3, pp. 24–37; Unit 1, Lesson 4, pp. 38–47  <b>TE:</b> Unit 1, Lesson 1, pp. 14–26; Unit 1, Lesson 3, pp. 42–56; Unit 1, Lesson 4, pp. 58–70</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 3, Scientific Investigations; Unit 1, Lesson 4, Representing Data  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 3, Scientific Investigations; Unit 1, Lesson 4, Representing Data</p>
SC.8.N.1.4	Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.	<p><b>SE:</b> Unit 1, Lesson 1, pp. 12–13; Unit 1, Lesson 2, pp. 14–23  <b>TE:</b> Unit 1, Lesson 1, p. 19; Unit 1, Lesson 2, pp. 28–40</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 2, Scientific Knowledge  <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?; Unit 1, Lesson 2, Scientific Knowledge</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.N.1.5	Analyze the methods used to develop a scientific explanation as seen in different fields of science.	<b>SE:</b> Unit 2, Lesson 7, pp. 170–181 <b>TE:</b> Unit 2, Lesson 7, pp. 226–239  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 7, The Periodic Table <b>Teacher Digital Management Center:</b> Unit 2, Lesson 7, The Periodic Table  <b>Lab(s):</b> Unit 2, Lesson 5 Quick Lab: The pH Scale; Unit 2, Lesson 7 Quick Lab: Rearranging the Periodic Table; Unit 2 Exploration Lab: Identifying Unknown Samples
SC.8.N.1.6	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.	<b>SE:</b> Unit 2, Think Science, pp. 98–99; Unit 2, Lesson 3, pp. 116–127 <b>TE:</b> Unit 2, Think Science, pp. 142–143; Unit 2, Lesson 3, pp. 162–175  <b>Student Interactive Digital Curriculum:</b> Unit 2 Think Science: Determining Relevant Information; Unit 2, Lesson 3, Physical and Chemical Changes <b>Teacher Digital Management Center:</b> Unit 2 Think Science: Determining Relevant Information; Unit 2, Lesson 3, Physical and Chemical Changes  <b>Lab(s):</b> Unit 2, Lesson 2 Quick Lab: Will It Sink or Float?; Unit 2, Lesson 3 Quick Lab: Physical or Chemical Change?
SC.8.N.2.1	Distinguish between scientific and pseudoscientific ideas.	<b>SE:</b> Unit 2 Think Science, pp. 98–99 <b>TE:</b> Unit 2 Think Science, pp. 142–143  <b>Student Interactive Digital Curriculum:</b> Unit 2 Think Science: Evaluating Scientific Evidence <b>Teacher Digital Management Center:</b> Unit 2 Think Science: Evaluating Scientific Evidence
SC.8.N.2.2	Discuss what characterizes science and its methods.	<b>SE:</b> Unit 1, Lesson 1, pp. 4–13 <b>TE:</b> Unit 1, Lesson 1, pp. 14–26  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 1, What Is Science? <b>Teacher Digital Management Center:</b> Unit 1, Lesson 1, What Is Science?

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.N.3.1	Select models useful in relating the results of their own investigations.	<b>SE:</b> Unit 2, Lesson 4, pp. 132–141 <b>TE:</b> Unit 2, Lesson 4, pp. 180–194  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 4, States of Matter <b>Teacher Digital Management Center:</b> Unit 2, Lesson 4, States of Matter
SC.8.N.3.2	Explain why theories may be modified but are rarely discarded.	<b>SE:</b> Unit 1, Lesson 2, pp. 14–23 <b>TE:</b> Unit 1, Lesson 2, pp. 28–40  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 2, Scientific Knowledge <b>Teacher Digital Management Center:</b> Unit 1, Lesson 2, Scientific Knowledge
SC.8.N.4.1	Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.	<b>SE:</b> Unit 2, People in Science, pp. 114–115 <b>TE:</b> Unit 2, People in Science, pp. 160–161  <b>Student Interactive Digital Curriculum:</b> Unit 2 People in Science: Shirley Ann Jackson <b>Teacher Digital Management Center:</b> Unit 2 People in Science: Shirley Ann Jackson
SC.8.N.4.2	Explain how political, social, and economic concerns can affect science, and vice versa.	<b>SE:</b> Unit 1, Lesson 5, pp. 50–59 <b>TE:</b> Unit 1, Lesson 5, pp. 74–86  <b>Student Interactive Digital Curriculum:</b> Unit 1, Lesson 5, Science and Society <b>Teacher Digital Management Center:</b> Unit 1, Lesson 5, Science and Society
SC.8.P.8.1	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.	<b>SE:</b> Unit 2, Lesson 4, pp. 132–141 <b>TE:</b> Unit 2, Lesson 4, pp. 180–193  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 4, States of Matter <b>Teacher Digital Management Center:</b> Unit 2, Lesson 4, States of Matter  Many labs address this benchmark, including the following: <b>Lab(s):</b> Unit 2, Lesson 4 Quick Lab: Changing Volumes; Unit 2, Lesson 4 Quick Lab: Bottle of Vapor

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.P.8.2	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.	<b>SE:</b> Unit 2, Lesson 1, pp. 84–97 <b>TE:</b> Unit 2, Lesson 1, pp. 126–141  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 1, Introduction to Matter <b>Teacher Digital Management Center:</b> Unit 2, Lesson 1, Introduction to Matter  <b>Lab(s):</b> Unit 2, Lesson 1 Quick Lab: Mass and Weight; Unit 2, Lesson 1 Quick Lab: Finding Volume by Displacement; Unit 2 Quick Lab: How Much Mass?
SC.8.P.8.3	Explore and describe the densities of various materials through measurement of their masses and volumes.	<b>SE:</b> Unit 2, Lesson 1, pp. 84–97 <b>TE:</b> Unit 2, Lesson 1, pp. 126–141  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 1, Introduction to Matter <b>Teacher Digital Management Center:</b> Unit 2, Lesson 1, Introduction to Matter  <b>Lab(s):</b> Unit 2, Lesson 1 Quick Lab, Mass and Weight; Unit 2, Lesson 1 Quick Lab, Finding Volume by Displacement; Unit 2 Exploration Lab, Comparing Buouyancy
SC.8.P.8.4	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.	<b>SE:</b> Unit 2, Lesson 2, pp. 100–113; Unit 2, People in Science, pp. 114–115 <b>TE:</b> Unit 2, Lesson 2, pp. 144–159; Unit 2, People in Science, pp. 160–161  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 2, Properties of Matter; Unit 2 People in Science: Shirley Ann Jackson <b>Teacher Digital Management Center:</b> Unit 2, Lesson 2, Properties of Matter; Unit 2 People in Science: Shirley Ann Jackson  <b>Lab(s):</b> Unit 2, Lesson 2 Quick Lab: Will It Sink or Float?; Unit 2, Lesson 2 Quick Lab: Growing Crystals; Unit 2, Lesson 2 Quick Lab: Natural vs. Synthetic Fibers
SC.8.P.8.5	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.	<b>SE:</b> Unit 2, Lesson 5, pp. 142–155 <b>TE:</b> Unit 2, Lesson 5, pp. 195–209  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 5, Pure Substances and Mixtures <b>Teacher Digital Management Center:</b> Unit 2, Lesson 5, Pure Substances and Mixtures  <b>Lab(s):</b> Unit 2, Lesson 5 Quick Lab: Comparing Two Elements

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.P.8.6	Recognize that elements are grouped in the periodic table according to similarities of their properties.	<b>SE:</b> Unit 2, Lesson 7, pp. 170–181 <b>TE:</b> Unit 2, Lesson 7, pp. 226–239  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 7, The Periodic Table <b>Teacher Digital Management Center:</b> Unit 2, Lesson 7, The Periodic Table  <b>Lab(s):</b> Unit 2, Lesson 7 Quick Lab: Predicting Properties; Unit 2, Lesson 7 Quick Lab: Rearranging the Periodic Table; Unit 2, Lesson 7 Quick Lab: Recognizing Patterns
SC.8.P.8.7	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).	<b>SE:</b> Unit 2, Lesson 6, pp. 156–167 <b>TE:</b> Unit 2, Lesson 6, pp. 210–223  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 6, The Atom <b>Teacher Digital Management Center:</b> Unit 2, Lesson 6, The Atom  <b>Lab(s):</b> Unit 2, Lesson 6 Quick Lab: A Model Atom; Unit 2, Lesson 6 Quick Lab: Atoms and Subatomic Particles; Unit 2 STEM Lab: Build a Bohr Model
SC.8.P.8.8	Identify basic examples of and compare and classify the properties of compounds, including acids, bases, and salts.	<b>SE:</b> Unit 2, Lesson 5, pp. 142–155 <b>TE:</b> Unit 2, Lesson 5, pp. 195–209  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 5, Pure Substances and Mixtures <b>Teacher Digital Management Center:</b> Unit 2, Lesson 5, Pure Substances and Mixtures  <b>Lab(s):</b> Unit 2, Lesson 5 Quick Lab: Comparing Two Elements; Unit 2, Lesson 5 Quick Lab: The pH Scale
SC.8.P.8.9	Distinguish among mixtures (including solutions) and pure substances.	<b>SE:</b> Unit 2, Lesson 5, pp. 142–155; Unit 2, Focus on Florida, pp. 168–169 <b>TE:</b> Unit 2, Lesson 5, pp. 195–209; Unit 2, Focus on Florida, pp. 224–225  <b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 5, Pure Substances and Mixtures; Unit 2 Focus on Florida: Mixtures in Florida <b>Teacher Digital Management Center:</b> Unit 2, Lesson 5, Pure Substances and Mixtures; Unit 2 Focus on Florida: Mixtures in Florida



**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

SC.8.P.9.1	Explore the Law of Conservation of Mass by demonstrating and concluding that mass is conserved when substances undergo physical and chemical changes.	<p><b>SE:</b> Unit 2, Lesson 3, pp. 116–127  <b>TE:</b> Unit 2, Lesson 3, pp. 162–175</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 3, Physical and Chemical Changes  <b>Teacher Digital Management Center:</b> Unit 2, Lesson 3, Physical and Chemical Changes</p> <p><b>Lab(s):</b> Unit 2, Lesson 3 Quick Lab: Physical or Chemical Change?; Unit 2, Lesson 3 Quick Lab: Properties of Combined Substances; Unit 2, Lesson 3 Quick Lab: What's In a Change?</p> <p><b>Virtual Lab:</b> Unit 2, Lesson 3, Change of Pace</p>
SC.8.P.9.2	Differentiate between physical changes and chemical changes.	<p><b>SE:</b> Unit 2, Lesson 3, pp. 116–127  <b>TE:</b> Unit 2, Lesson 3, pp. 162–175</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 3, Physical and Chemical Changes  <b>Teacher Digital Management Center:</b> Unit 2, Lesson 3, Physical and Chemical Changes</p> <p><b>Lab(s):</b> Unit 2, Lesson 3 Quick Lab: Physical or Chemical Change?; Unit 2, Lesson 3 Quick Lab: Properties of Combined Substances</p> <p><b>Virtual Lab(s):</b> Unit 2, Lesson 3, Change of Pace</p>
SC.8.P.9.3	Investigate and describe how temperature influences chemical changes.	<p><b>SE:</b> Unit 2, Lesson 3, pp. 116–127  <b>TE:</b> Unit 2, Lesson 3, pp. 162–175</p> <p><b>Student Interactive Digital Curriculum:</b> Unit 2, Lesson 3, Physical and Chemical Changes  <b>Teacher Digital Management Center:</b> Unit 2, Lesson 3, Physical and Chemical Changes</p> <p><b>Lab(s):</b> Unit 2, Lesson 3 Quick Lab: Physical or Chemical Change?</p>
LAFS.68.RST.1.1	Cite specific textual evidence to support analysis of science and technical texts.	<p>This standard is covered throughout the program, especially with <i>Claims, Evidence, and Reasoning</i> questions. The following are some of the many examples:</p> <p><b>SE:</b> 12, 104, 128–131, 263  <b>TE:</b> 24, 26, 154, 176–179, 357</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

LAFS.68.RST.1.2	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	This standard is covered throughout the program. The following are some of the many examples: <b>TE:</b> 37, 374
LAFS.68.RST.1.3	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	This standard is covered throughout the program. The following are some of the many examples: <b>SE:</b> 306–307 <b>TE:</b> 61, 182, 412
LAFS.68.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.	This standard is covered throughout the program. The following are some of the many examples: <b>SE:</b> 85, 325 <b>TE:</b> 134, 342, 356, 440
LAFS.68.RST.2.5	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	<b>TE:</b> 356–357, 362–363, 473
LAFS.68.RST.2.6	Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	Within the Lab Manual are Quick Labs, S.T.E.M. Labs, and Exploration Labs students can use to analyze the author’s purpose.
LAFS.68.RST.3.7	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	This practice is covered throughout the program. The following are some of the many examples: <b>SE:</b> 40–47, 68–89, 285 <b>TE:</b> 67–70, 100, 378
LAFS.68.RST.3.8	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	This practice is covered throughout the program. The following are some of the <b>many</b> examples: <b>SE:</b> 20–21 <b>TE:</b> 39

2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)

LAFS.68.RST.3.9	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	<b>Lab:</b> Unit 2 Exploration Lab: Identifying Unknown Samples (see the <i>Modification for Independent Inquiry</i> )
LAFS.68.RST.4.10	By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.	This practice is covered throughout the program. The following are some of the many examples: <b>SE:</b> 12, 104, 128–131, 263 <b>TE:</b> 24, 26, 154, 176–179, 357
LAFS.68.WHST.1.1	Write arguments focused on <i>discipline-specific content</i> . a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically. b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources. c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence. d. Establish and maintain a formal style. e. Provide a concluding statement or section that follows from and supports the argument presented.	This practice is covered throughout the program. See, for example: <b>SE:</b> 319 <b>TE:</b> 267

2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)

LAFS.68.WHST.1.2	<p>Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.</p> <p>a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</p> <p>c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</p> <p>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</p> <p>e. Establish and maintain a formal style and objective tone.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented.</p>	<p>This standard is covered throughout the program. For example, see:</p> <p><b>SE:</b> 206</p> <p><b>TE:</b> 280</p>
LAFS.68.WHST.2.4	<p>Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>This standard is covered throughout the program. The following are some of the many examples:</p> <p><b>SE:</b> 120, 139</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

LAFS.68.WHST.2.5	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.	<b>TE:</b> 72
LAFS.68.WHST.2.6	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	This practice is covered throughout the program. The following are some of the many examples: <b>SE:</b> 57, 139 <b>TE:</b> 55, 85, 191
LAFS.68.WHST.3.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	This standard is covered throughout the program. The following are some of the many examples: <b>SE:</b> 34, 139, 279 <b>TE:</b> 55, 191, 374
LAFS.68.WHST.3.8	Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	This practice is covered throughout the program. The following are some of the many examples: <b>SE:</b> 23, 35, 139 <b>TE:</b> 55, 191
LAFS.68.WHST.3.9	Draw evidence from informational texts to support analysis reflection, and research.	This standard is covered throughout the program. The following are some of the many examples: <b>SE:</b> 266 <b>TE:</b> 359
LAFS.68.WHST.4.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	This standard is covered throughout the program. The following are some of the many examples: <b>SE:</b> 119, 279 <b>TE:</b> 171, 374

2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)

LAFS.8.SL.1.1	<p>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.</p> <p>c. Pose questions that connect the ideas of several speakers and respond to others’ questions and comments with relevant evidence, observations, and ideas.</p> <p>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.</p>	<p>This practice is covered throughout the program. See, for example:</p> <p><b>SE:</b> 94–95</p> <p><b>TE:</b> 139, 258</p>
LAFS.8.SL.1.2	<p>Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.</p>	<p>Within the Lab Manual are Quick Labs, S.T.E.M. Labs, and Exploration Labs students can use to analyze the purpose.</p>

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

LAFS.8.SL.1.3	Delineate a speaker’s argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.	This practice is covered throughout the program. This practice is covered throughout the program. See, for example: <b>SE:</b> 139, 275
LAFS.8.SL.2.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.	This practice is covered throughout the program. This practice is covered throughout the program. See, for example: <b>TE:</b> 224
LAFS.8.SL.2.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.	This practice is covered throughout the program. This practice is covered throughout the program. See, for example: <b>TE:</b> 160
MAFS.6.SP.2.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	This practice is covered throughout the program, especially with the S.T.E.M. features. The following are some of the many examples: <b>SE:</b> 72–75, 98–99, 226–227 <b>TE:</b> 102–105, 142–143, 300–301

**2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)**

MAFS.7.SP.2.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.	<b>SE:</b> 226–227 <b>TE:</b> 300–301
MAFS.7.SP.3.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	<b>SE:</b> 4–13 <b>TE:</b> 14–26
MAFS.8.F.2.5	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	<b>SE:</b> 38–47, 308–321 <b>TE:</b> 58–70, 414–428
MAFS.8.G.3.9	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	<b>SE:</b> 90–91 <b>TE:</b> 137
ELD.K12.ELL.SC.1	English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science.	This standard is covered throughout the program. The following are some of the many examples: <b>TE:</b> 60, 185, 413



2016-2017 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION  
STANDARDS ALIGNMENT  
COURSE STANDARDS/BENCHMARKS (Form IM7)

ELD.K12.ELL.SI.1	English language learners communicate for social and instructional purposes within the school setting.	This standard is covered throughout the program. The following are some of the many examples: <b>TE:</b> 19, 179, 261, 401
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