



**Course Name: 6<sup>th</sup> Honors Grade Science**

**School Year: 2021 - 2022**

**Course Purpose and Relevance:**

Grade 6 science is interdisciplinary in nature; however, much of the content focus is on physical science. National standards in science are organized as multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level format used in Texas, the various national standards are found among Grades 6, 7, and 8. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale. The Pre AP course is an accelerated study of 6<sup>th</sup> grade and some 8<sup>th</sup> grade standards.

**Overview of Student Outcomes:**

- The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices
- The student uses scientific practices during laboratory and field investigations.
- The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists.
- The student knows how to use a variety of tools and safety equipment to conduct science inquiry.
- The student knows the differences between elements and compounds.
- The student knows matter has physical properties that can be used for classification.
- The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable.
- The student knows force and motion are related to potential and kinetic energy.
- The student knows that the Law of Conservation of Energy states that energy can neither be created nor destroyed, it just changes form.
- The student understands the structure of Earth, the rock cycle, and plate tectonics.
- The student understands the organization of our solar system and the relationships among the various bodies that comprise it.
- The student knows all organisms are classified into domains and kingdoms. Organisms within these groups share similar characteristics that allow them to interact with the living and nonliving parts of their ecosystem.
- The student knows that interactions occur between matter and energy.
- The student knows that matter has physical and chemical properties and can undergo physical and chemical changes.
- The student knows that natural events and human activity can impact Earth systems.
- The student knows components of our solar system.

**Available Support for Student Learning:**

Refer to the teacher's Course Syllabus for resources and course specific opportunities.  
Student textbook and/or digital version are available through the CCISD Student Portal.

**Link to Course TEKS on State website:**

<http://ritter.tea.state.tx.us/rules/tac/chapter112/ch112c.html#112.33>

<b>Year-At-A-Glance 2021-2022</b>	<b>Department</b>	Secondary Science	<b>PEIMS Code</b>	
	<b>Subject Area</b>	6th Grade Science Honors	<b>Grade Level</b>	6

	1 <sup>st</sup> Nine Weeks			2 <sup>nd</sup> Nine Weeks	
	August	September	October	November	December
<b>Week 1</b>		<b>Energy</b> <b>6.8A, 6.9C</b>  Forms and Transformation	<b>Force and Motion</b> <b>6.8B</b>  Balanced and Unbalanced Forces  <b>9 weeks Exams</b>  End of 9 weeks	<b>Force and Motion</b> <b>8.6A, 8.6C, 6.8E</b>  Newton's Laws <i>with Experimental Design</i> Inclined Planes	<b>Geology Foundations</b> <b>6.3 B, 6.3D, 6.10A</b>  Rock Cycle Layers of the Earth  Exam Review
<b>Week 2</b>		<b>Energy</b> <b>6.9A, 6.9B</b>  Thermal Energy Flow	<b>Force and Motion</b> <b>6.8C, 6.8D, 8.6B</b>  Speed and Velocity	<b>Force and Motion</b> <b>8.6A, 8.6C, 6.8E</b>  Newton's Laws <i>with Experimental Design</i> Inclined Planes	<b>Semester Exams</b>
<b>Week 3</b>	<b>Safety and Scientific Skills</b> <b>6.1 – 6.4</b>  Safety & Equipment Scientific Reasoning Skills  <i>*These skills should be incorporated throughout the year.</i>	<b>Energy</b> <b>6.7A</b>  Sources and Management	<b>Force and Motion</b> <b>6.8D, 8.6B</b>  Acceleration Distance/Time Graphs Position/Time Graphs	<b>Geology Foundations</b> <b>6.10C</b>  Minerals	<b>Holidays</b>
<b>Week 4</b>	<b>Safety and Scientific Skills</b> <b>6.1 – 6.4</b>  Safety & Equipment Scientific Reasoning Skills	<b>Force and Motion</b> <b>6.8B</b>  Balanced and Unbalanced Forces	<b>Force and Motion</b> <b>6.8D, 8.6B</b>  Acceleration Distance/Time Graphs Position/Time Graphs	<b>Thanksgiving</b>	<b>Holidays</b>
<b>Week 5</b>	<b>Energy</b> <b>6.8A, 6.9C</b>  Forms and Transformation			<b>Geology Foundations</b> <b>6.3 B, 6.3D, 6.10A</b>  Rock Cycle Layers of the Earth	

Week is based on the month that the first day of the week occurs.

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	3 <sup>rd</sup> 9 Weeks			4 <sup>th</sup> 9 Weeks	
	January	February	March	April	May
<b>Week 1</b>	<b>Review and Analyze Semester Exam Data</b>	<b>Per. Table &amp; Physical Properties</b> 6.6A, 6.6B, 8.5C  Intro to POT Density	<b>Chemical Properties &amp; Changes</b> 6.5C, 8.5E  Chemical Reactions  9 Weeks Exam  End of 9 Weeks	<b>Cells</b> 6.4A, 6.12A, 6.12B  Microscope Skills Building Blocks Prokaryote vs Eukaryote	<b>Classification</b> 6.12D  Kingdoms
<b>Week 2</b>	<b>Plate Tectonics</b> 6.10C, 6.10D, 8.9B  Plate Tectonics  Spiraling: Balanced and Unbalanced Forces	<b>Per. Table &amp; Physical Properties</b> 6.6A, 6.6B, 8.5C  Intro to POT Density	<b>Spring Break</b>	<b>Cells</b> 6.4A, 6.12A, 6.12B  Microscope Skills Building Blocks Prokaryote vs Eukaryote	<b>Ecology</b> 6.12E, 6.12F  Biotic and Abiotic Ecological Levels of Organization  STAAR Testing
<b>Week 3</b>	<b>Plate Tectonics</b> 6.10C, 6.10D, 8.9B, 8.9A  Plate Tectonics Evidence and History	<b>Chemical Properties &amp; Changes</b> 8.5B  Valence Electrons and Reactivity	<b>Space</b> 6.11A, 8.8B  Solar System	<b>Classification</b> 6.12C  Classifying Domains	<b>Ecology</b> 6.12E, 6.12F  Biotic and Abiotic Ecological Levels of Organization  Semester Exam Review
<b>Week 4</b>	<b>Chemistry Foundations</b> 6.5A, 8.5A, 8.5B  Chemical Labels Atomic Structure	<b>Chemical Properties &amp; Changes</b> 6.5C, 8.5E  Chemical Reactions	<b>Space</b> 6.11B, 8.8B  Gravity Space Transportation	<b>Classification</b> 6.12D  Kingdoms	<b>Semester Exams</b>
<b>Week 5</b>	<b>Chemistry Foundations</b> 6.5A, 8.5A, 6.5B, 8.5B  Chemical Labels Atomic Structure				

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