



Saddlebrook Preparatory School

Curriculum Map- Scope and Sequence:
High School Physical Science

Purpose of Planning	Unit One Science Skills Q1, W1-2	Unit Two Chem: Matter Q1, W3-6	Unit Three Chem: Atoms Q1-2, W7-10	Unit Four Chem: Chem. Reactions Q2, W11-16	Unit Five Chem: Types of Chem. Q2, W17-18
Unit Topic and Overview:	The study of science skills is a review of the scientific thinking, calculations/measurements and presenting data.	The study of matter relates the physical and chemical properties to the different states of matter.	The study of atoms combines the study of individual atoms and reasoning for elements organization (periodic law) in the periodic table.	The study of chemical reactions examines the types of chemical bonds, reaction energies, and properties of specific reactions.	The study of chemistry involves many branches; in this unit carbon chemistry and nuclear chemistry are explored in greater detail.
Prerequisite Student Knowledge *What should students have previously mastered prior to this unit?	Students should have background knowledge of scientific thinking (scientific method), labs, and lab reports.	Students should have background knowledge of the states of matter (solid, liquid, gas, and plasma.)	Students should have background knowledge of the vocabulary associated with the atom and that a periodic table organizes atoms.	Students should have background knowledge of atoms combining to make compounds/molecules and seen simple formulas or chemical equations.	Students should have background knowledge of the branches of chemistry and vocabulary from previous units.
Essential Knowledge & Student Expectations *What are the anticipated learning outcomes for students?	Students will demonstrate knowledge of scientific thinking and they will complete an overview of their experiment. Essential Questions: 1. Connect the themes of Biology to your favorite area of study. 2. Generate a hypothesis to test an inference you have observed. Summarize your experimental findings.	Students will demonstrate knowledge of the states of matter with understanding the properties and applying the scientific laws associated with the state of matter. Essential Questions: 1. Compare and contrast the properties associated with the different states of matter. 2. Given various example problem mathematically apply the scientific laws associated with the different states of matter.	Students will demonstrate knowledge of atoms by diagramming models of the atoms and constructing periodic trends for elements. Essential Questions: 1. Explain, verbally and with diagrams, the evolution of the model of the atom. 2. Compare and contrast the scientists and experiments that studied subatomic particles that lead to models of the atom. 3. Using element clues construct a correct periodic table of the main group elements.	Students will demonstrate knowledge of chemical reactions by diagramming chemical bonds, naming/writing formulas for compounds, balancing equations, and identifying chemical reaction types. Essential Questions: 1. Analyze the different types of chemical bonds and the molecular compounds these bonds create. 2. Using bond types, correctly name or write the molecular formulas for compounds, then combine molecular formulas into balanced chemical equations, and identify the type of reaction taking place.	Students will demonstrate knowledge of carbon chemistry and nuclear chemistry by relating examples to applications in society. Essential Questions: 1. Explain the importance of the products or services provided by the following branches of chemistry: carbon chemistry and nuclear chemistry.



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<p>Anchor Text and Supplemental Texts *Illustrate texts used, and how students' knowledge builds across units.</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011. Ch 1 Science Skills (pg xviii-22)</p> <p>Literary Texts:</p> <p>Informational Texts: From Library- will vary with student project topics</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011. Ch 2 Properties of Matter (pg36-54) Ch 3 states of Matter (pg 66-84)</p> <p>Literary Texts:</p> <p>Informational Texts: -Careers in chemistry (pg34-35) Career links visit: phschool.com (ccb-1000) -Debate: Arsenic Treated Wood (pg59) more on the issue visit: phschool.com (cch-1020)</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011. Ch 4 Atomic Structure (pg 98-113) Ch 5 The Periodic Table (pg 124-139)</p> <p>Literary Texts:</p> <p>Informational Texts: -Element Project (pg145-149) Research various websites</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011. Ch 6 Chemical Bonds (pg 156-182) Ch 7 Chemical Reactions (pg 190-216) Ch 8 Solutions, Acids, Bases (pg 226-250)</p> <p>Literary Texts:</p> <p>Informational Texts:</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011. Ch 9 Carbon Chemistry (pg 260-282) Ch 10 Nuclear Chemistry (pg 290-308)</p> <p>Literary Texts:</p> <p>Informational Texts: -Debate: GMO (pg 281) links to polymers: phschool.com (ccn-1093)</p>
<p>Multi-Media Links: *Videos, presentations, any and all supplemental online material.</p>	<p>-Discovery Education Video: Lab Safety: The Chem Games</p>	<p>-Discovery Education Video: Elements of Chemistry: Atoms: The Building Blocks of Matter -Discovery Education Video: Standard Deviants Teaching Systems: Chemistry: Model 03: States of Matter -Careers in chemistry (pg34-35) Career links visit: phschool.com (ccb-1000) -Debate: Arsenic Treated Wood (pg59) more on the issue visit: phschool.com (cch-1020)</p>	<p>-Discovery Education Video: The Periodic Table -Discovery Education Video: The Periodic Table: Reactions and Relationships -Element Project (pg145-149) Research various websites</p>	<p>-Discovery Education Video: Bonding: Between Atoms -Discovery Education Video: Standard Deviants Teaching Systems: Chemistry: Model 02: Bonds and Molecular Structure -Discovery Education Video: Standard Deviants Teaching systems: Chemistry: Model 06: Chemical Reactions and Equilibrium</p>	<p>-Discovery Education Video: Chemistry of Carbon -Debate: GMO (pg 281) links to polymers: phschool.com (ccn-1093)</p>



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<p>Instructional Practices: * Various Instructional Modalities, including Technology used</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 1 labs: Comparing Precision (pg18), Data Analysis (pg24), -Labs review steps of scientific method and written lab reports</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 2 & ch 3, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 2 Labs: Data Analysis (pg 42) -CSI Lab (pg 60-61) -Ch 3 Labs: Data Analysis (pg 71), Phase Changes (pg90), -Labs review steps of scientific method and written lab reports</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 4 & ch 5, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch4 Labs: Senses (pg99), -Ch 5 labs: Pattern (pg 125), Unit lab periodic trends -Element Project (pg145-149) -Labs review steps of scientific method and written lab reports</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 6, ch 7, ch 8, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch6 Labs: Shapes of materials (pg157), Modeling molecules (pg173) -Ch 7 labs: Mass conserved (pg191), Modeling a mole (pg 196) -Ch 8 Labs: Shaking and Heating (pg 227), Acid-Base exploration -Labs review steps of scientific method and written lab reports</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 9 & ch 10, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch9Labs:Carbon compounds (pg 261), Comparing vita c (pg 285) -Ch 10 labs: Atoms Decay (pg 291), -Labs review steps of scientific method and written lab reports</p>
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<p>Assessments: *Types and Measurements of Mastery</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW.</p> <p>Formal Assessments: Pre-quiz, chapter quiz, unit test, weekly check points for student project, and labs.</p> <p>Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW.</p> <p>Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs.</p> <p>Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW.</p> <p>Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs.</p> <p>Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW.</p> <p>Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs.</p> <p>Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW.</p> <p>Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. *Semester 1 Final Exam ALL Chemistry topics</p> <p>Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>
<p>Interdisciplinary Lessons & Projects: *State additional content areas and title all lesson(s) and project(s)</p>	<p>- labs, (Science, LA/Writing, Technology, Math) -Student driven projects (Science, LA/Writing, Research Skills, Math, Technology)</p>	<p>-CSI Lab (Science, LA/Writing, Math, Forensics) -Labs and debates (Science, LA/Writing, technology, Sociology)</p>	<p>-Labs and debates (Science, LA/Writing, technology, Sociology) -Element Project (Science, research skills, LA/Writing, Math, Health/Nutrition)</p>	<p>-Labs and debates (Science, LA/Writing, technology, Sociology)</p>	<p>-Labs and debates (Science, LA/Writing, technology, Sociology)</p>
<p>Honors Course Differentiation(s):</p>	<p>-E-mail proposals for Q1 scientist project -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.</p>	<p>-E-mail outline for Q1 scientist project -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.</p>	<p>-E-mail final paper for Q1 scientist project -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.</p>	<p>-E-mail proposals for Q2 Adopt-an-element project -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.</p>	<p>-Adopt-an-element informational fact sheets and advertisement due week 17. -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.</p>



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<p>Integrated Common Core or NGSSS Standards (List): *See Below for Links</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10 SC.912.N.1.1-SC.912.N.1.7, SC.912.N.2.1-SC.912.N.2.5, SC.912.N.3.1-SC.912.N.3.5, SC.912.N.4.1-SC.912.N.4.2</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10 SC.912.P.12.1, SC.912.P.12.10, SC.912.P.12.11, SC.912.P.12.12, SC.912.P.8.1, SC.912.P.8.2</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10 SC.912.P.10.13, SC.912.P.10.16, SC.912.P.10.9, SC.912.P.8.3, SC.912.P.8.4, SC.912.P.8.5</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10 SC.912.P.10.6, SC.912.P.10.7, SC.912.P.8.11, SC.912.P.8.12, SC.912.P.8.13</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10 SC.912.P.10.11, SC.912.P.10.12, SC.912.P.8.6, SC.912.P.8.7, SC.912.P.8.8, SC.912.P.8.9</p>
<p>Integrated CCSS Writing Standards (List): *See Below for Links</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>
<p>Links to CCSS/NGSSS Curriculum Standards:</p>	<p>The following links will be used to incorporate the CCSS and other applicable standards:</p> <ul style="list-style-type: none"> • The Common Core State Standard expectations in grade 9-12, • The K-12 English LA and Content Area Writing Standards • The K-12 Reading Standards • The K-12 Mathematics Standards • The K-12 NGSSS Science & Social Studies Standards 				



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Curriculum Map- Scope and Sequence:
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Purpose of Planning	Unit Six Physics: Forces Q3, W19-22	Unit Seven Physics: Energy Q3, W23-28	Unit Eight Physics: Light Q4, W29-32	Unit Nine Physics: Electricity Q4, W33-36	
Unit Topic and Overview:	The study of forces relates motion of objects to the forces applied to those objects and calculates work, power, or efficiency of machines affecting those objects.	The study of energy applies the laws of energy to different types of energies and waves.	The study of light explores the electromagnetic spectrum, light, and optics.	The study of electricity connects electricity and magnetism in the world around us.	
Prerequisite Student Knowledge *What should students have previously mastered prior to this unit?	Students should have background knowledge of vocabulary related to forces and motion, and slight background on the simple machines.	Students should have background knowledge that different types of energies exist from middle school sciences.	Students should have background knowledge of the visual light spectrum.	Students should have background knowledge of basic electricity and magnetism vocabulary.	
Essential Knowledge & Student Expectations *What are the anticipated learning outcomes for students?	Students will demonstrate knowledge of forces by relating physics laws to experimental and real-world examples mathematically proving results observed. Essential Questions: 1. It has been hypothesized that “forces explain motion” prove or disprove this theory. 2. Use examples to explain Newton’s Laws of Motion. 3. Prove how forces and motion influence simple machines; additionally justify why no machine is 100% efficient.	Students will demonstrate knowledge of energies by apply energy laws to movement of waves. Essential Questions: 1. Explain the role energy plays in all forms of matter. 2. Scientific understanding supports the statement: “there is nothing new under the sun,” generalize how this statement is <i>always</i> true. 3. Visually and verbally explain how waves move and transfer information.	Students will demonstrate knowledge of electromagnetic spectrum, light, and optics by understanding and applying the concepts to their lives. Essential Questions: 1. Connect what our eyes and ears are actually sensing when our brains see different colors or hear different sounds. 2. Based on choices made as a teenager; relate how sights and sounds encountered at a younger age affect an adult by using common visual/audio deficiencies.	Students will demonstrate knowledge of electricity and magnetism by using knowledge gained to set up experiments using these principles. Essential Questions: 1. Assess how electric charge and magnetism are similar. 2. Explain how electricity and magnetism have affected science, technology, and the quality of life. 3. Create electrical and magnetic circuits that transfer information.	



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<p style="text-align: center;">Anchor Text and Supplemental Texts</p> <p>*Illustrate texts used, and how students' knowledge builds across units.</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011.</p> <p>Ch 11 Motion (pg 326-342) Ch 12 Forces in Motion (pg 354-378) Ch 13 Forces in Fluids (pg388-400) Ch 14 Work, Power, and Machines (pg 410-427)</p> <p>Literary Texts:</p> <p>Informational Texts: -Careers in Physics (pg 324-325) Career links visit: phschool.com (ccb-2000)</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011.</p> <p>Ch 15 Energy (pg444-462) Ch 16 Thermal Energy and Heat (pg 472-486) Ch 17 Mechanical Waves and Sound (pg 498-522)</p> <p>Literary Texts:</p> <p>Informational Texts: -Debate: Noise Pollution online phschool.com (cch-2173)</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011.</p> <p>Ch 18 The Electromagnetic Spectrum and Light (pg 530-558) Ch 19 Optics (pg 568-588)</p> <p>Literary Texts:</p> <p>Informational Texts: - Debate: Surveillance online phschool.com (cch-2193)</p>	<p>Anchor Texts: Wyession, M., Frank, D., and Yancopoulos, S. <u>Physical Science: Concepts in Action</u>. Upper Saddle River, New Jersey. Prentice Hall, 2011.</p> <p>Ch 20 Electricity (pg 598-618) Ch 21 Magnetism (pg 628-642)</p> <p>Literary Texts:</p> <p>Informational Texts: -Debate: Powering Cars online research (site MLA)</p>	
<p style="text-align: center;">Multi-Media Links:</p> <p>*Videos, presentations, any and all supplemental online material.</p>	<p>-Discovery Education Video: Daily Planet: Physical Properties</p> <p>-Discovery Education Video: Science Investigations: Physical Science: Investigating Motion, Forces, and Energy</p> <p>-Discovery Education Video: Mechanical Systems</p> <p>-Careers in Physics (pg 324-325) Career links visit: phschool.com (ccb-2000)</p>	<p>-Discovery Education Video: Elements of Energy</p> <p>-Discovery Education Video: Some Assembly Required: Golf Clubs, Diesel Engines, and Salt Mines</p> <p>-WebQuest: Waves http://questgarden.com/141/71/7/120327103553/</p> <p>-WebQuest: Roller Coaster Design</p> <p>-Debate: Noise Pollution online phschool.com (cch-2173)</p>	<p>-Discovery Education Video: Exploring: Light and Color</p> <p>- Debate: Surveillance online phschool.com (cch-2193)</p>	<p>-Discovery Education Video: Science is Elementary: How Does That Work?: Electricity and Magnetism</p> <p>-Debate: Powering Cars online research (site MLA)</p>	



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<p>Instructional Practices: * Various Instructional Modalities, including Technology used</p>	<ul style="list-style-type: none"> -Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 11, ch 12, ch 13, and ch 14, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 11 Labs: Distance and Displacement (pg 330), unit lab on vectors -Ch 12 Labs: Moving Pennies (pg 355), Investigating Inertia (pg 365), Data Analysis (377), Force and Distance (pg 380), unit lab free fall -Ch 13 Labs: Sink or Float (pg 389) -Ch 14 Labs: Ramps Raise (pg 411), Friction and MA (pg 424), Comparing lever (pg 429), Pulley System (pg 433) -Labs review steps of scientific method and written lab reports -Careers in Physics (pg 324-325) Career links visit: phschool.com (ccb-2000) 	<ul style="list-style-type: none"> -Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 15, ch 16, and ch 17, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 15 Labs: WebQuest -Ch 16 Labs: Hot and Cold (pg 473), Data Analysis (pg 791), -Ch 17 Labs: WebQuest Waves, Debate Noise Pollution -Labs review steps of scientific method and written lab reports -WebQuest: Roller Coaster Design 	<ul style="list-style-type: none"> -Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 18 & ch 19, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 18 Labs: Antenna (pg 542) -Ch 19 Labs: Gemstones (pg 575), Debate Surveillance -Labs review steps of scientific method and written lab reports 	<ul style="list-style-type: none"> -Bell work and discussion of Essential Questions -Lecture with PowerPoint, ch 20 & ch 21, students take notes in interactive notebook -Focused reading of anchor text and vocabulary -Outlining student driven experiment/project -Scientific research methods on student laptops -Ch 21 Labs: Magnets interact (pg 629), Magnetic Field Lines (pg 632), Making electromagnetic (pg 637), sound-circuit board unit lab -Labs review steps of scientific method and written lab reports -Debate: Powering Cars (pg 608) 	
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Assessments: *Types and Measurements of Mastery	Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.	Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.	Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.	Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. * Semester 2 Final Exam ALL Physics topics Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.	
Interdisciplinary Lessons & Projects: *State additional content areas and title all lesson(s) and project(s)	-Labs and debates (Science, LA/Writing, technology, Sociology) -Careers in Physics (Science, LA/Writing, Math, technology)	-Labs and debates (Science, LA/Writing, technology, Sociology) -WebQuest: Waves (Science, LA/Writing, technology, Math, Health) -WebQuest: Roller Coaster Design (Science, LA/Writing, Math, Technology)	-Labs and debates (Science, LA/Writing, technology, Sociology)	-Labs and debates (Science, LA/Writing, technology, Sociology)	
Honors Course Differentiation(s):	-E-mail proposal of research topic for Q3 Physics in Society Project -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.	-Persuasive PowerPoint and outline due week 24. -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.	-E-mail proposal for Q4 Career in Physics project. -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.	-Persuasive presentation (magazine, video, PowerPoint) due week 35. -Additional test questions and extended response questions to demonstrate mastery. -Honors students required to accompany their projects to the school and district science fair.	



Curriculum Map- Scope and Sequence: High School Physical Science

Saddlebrook Preparatory School

<p>Integrated Common Core or NGSSS Standards (List): *See Below for Links</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10</p> <p>SC.912.P.10.10, SC.912.P.10.14, SC.912.P.10.15, SC.912.P.10.3, SC.912.P.10.4, SC.912.P.12.13, SC.912.P.12.2, SC.912.P.12.3, SC.912.P.12.4, SC.912.P.12.5</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10</p> <p>SC.912.P.10.1, SC.912.P.10.2, SC.912.P.10.5, SC.912.P.10.6, SC.912.P.10.8, SC.912.P.12.7, SC.912.P.12.8, SC.912.P.12.9</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10</p> <p>SC.912.P.10.17, SC.912.P.10.18, SC.912.P.10.19, SC.912.P.10.20, SC.912.P.10.21, SC.912.P.10.22</p>	<p>CCSS.ELA-Literacy.RST.9-10.1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 CCSS.ELA-Literacy.RST.9-10.6 CCSS.ELA-Literacy.RST.9-10.7 CCSS.ELA-Literacy.RST.9-10.8 CCSS.ELA-Literacy.RST.9-10.9 CCSS.ELA-Literacy.RST.9-10.10</p> <p>SC.912.P.10.13, SC.912.P.10.14</p>	
<p>Integrated CCSS Writing Standards (List): *See Below for Links</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	<p>CCSS.ELA-Literacy.W.9-10.1 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.9-10.4 CCSS.ELA-Literacy.W.9-10.5 CCSS.ELA-Literacy.W.9-10.7 CCSS.ELA-Literacy.W.9-10.</p>	
<p>Links to CCSS/NGSSS Curriculum Standards:</p>	<p>The following links will be used to incorporate the CCSS and other applicable standards:</p> <ul style="list-style-type: none"> • The Common Core State Standard expectations in grade 9-12, • The K-12 English LA and Content Area Writing Standards • The K-12 Reading Standards • The K-12 Mathematics Standards • The K-12 NGSSS Science & Social Studies Standards 				

