

## General Brown Central School District Curriculum Map

Course Title: Science in our Lives	Prepared By: D. Newvine
Time Frame: 9/8 - 9/20	Unit/Theme Measurements / Conversions / Graphing
<p>Essential Questions:</p> <p>What are measurements?</p> <p>What are the purposes of units?</p> <p>How can I convert from two different units?</p>	
<p>NYS Standards:</p> <p>HSN-Q.A.1</p> <p>HSN-Q.A.2</p> <p>HSN-Q.A.3</p>	<p>Vocabulary:</p> <p>Prefixes</p> <p>Scientific Notation</p> <p>Dimensional Analysis</p> <p>Grams</p> <p>Coulombs</p> <p>Meters/Second</p> <p>Newtons</p> <p>Joules</p> <p>Electronvolts</p> <p>Amperes</p>
<p>Student Objectives (The student will...):</p> <p>TSW use proper units when presenting quantitative answers.</p> <p>TSW show calculations whenever necessary.</p> <p>TSW complete dimensional analysis when converting.</p> <p>TSW use graphs to interpret data and make comparisons between data and equations.</p>	
<p>Assessment:</p> <p>Discussions, Worksheets, Labs, Quiz, &amp; Test</p>	
<p>Recommended Texts:</p> <p>Physical Setting - Physics</p>	<p>Resources:</p> <p>Powerpoint</p> <p>Online Media</p>

## General Brown Central School District Curriculum Map

Course Title: Science in our Lives	Prepared By: D. Newvine
Time Frame: 9/21 - 10/7	Unit/Theme The Atom
Essential Questions:  What are the building blocks of all matter?  How can we compare different elements?  What types of forces are produced by charged particles?	
NYS Standards:  HS - PS1 - 1  HS - PS1 - 3	Vocabulary: Charged Particles Elements Atomic Number Atomic Mass Metals Non-metals Compounds Cation Anion Molecules
Student Objectives (The student will...):  TSW identify different characteristics of elements.  TSW calculate the total charge of different binary compounds.  TSW interpret the periodic table of elements.	
Assessments: Discussions, Worksheets, Labs, Quiz, & Test	
Recommended Texts: Physical Setting - Physics	Resources: Powerpoint Online Media

## General Brown Central School District Curriculum Map

Course Title: Science in our Lives	Prepared By: D. Newvine
Time Frame: 10/8 - 11/15	Unit/Theme Energy
<p>Essential Questions:</p> <p>What forms of energy exist in our universe?</p> <p>How can we measure energy transfer in a closed system?</p> <p>What does conservation of energy look like in the real world?</p>	
<p>NYS Standards:</p> <p>HS - PS3 - 1</p> <p>HS - PS3 - 2</p> <p>HS - PS3 - 3</p>	<p>Vocabulary:</p> <p>Energy</p> <p>Work</p> <p>Displacement</p> <p>Gravitational Potential Energy</p> <p>Potential Energy of a Spring</p> <p>Kinetic Energy</p> <p>Energy Theorem</p> <p>Internal Energy</p> <p>Conservation of Energy</p> <p>Force</p>
<p>Student Objectives (The student will...):</p> <p>TSW understand the difference between kinetic and potential energy.</p> <p>TSW identify different types of energies in real world situations.</p> <p>TSW understand how to apply conservation of energy.</p>	
<p>Assessments:</p> <p>Discussions, Worksheets, Labs, Quiz, &amp; Test</p>	
<p>Recommended Texts:</p> <p>Physical Setting - Physics</p>	<p>Resources:</p> <p>Powerpoint</p> <p>Online Media</p>

## General Brown Central School District Curriculum Map

Course Title: Science in our Lives	Prepared By: D. Newvine
Time Frame: 11/16 - 12/21	Unit/Theme Waves
<p>Essential Questions:</p> <p>What happens when a cell phone sends a text message?</p> <p>Why do water waves/ light rays change directions?</p> <p>What are some observations that can be made about waves?</p>	
<p>NYS Standards:</p> <p>HS - PS4 - 1</p> <p>HS - PS4 - 2</p> <p>HS - PS4 - 5</p>	<p>Vocabulary:</p> <p>Amplitude</p> <p>Wavelength</p> <p>Frequency</p> <p>Period</p> <p>Oscillations</p> <p>Gamma Waves</p> <p>Radio Waves</p> <p>Resonance</p> <p>Diffraction</p> <p>Refraction</p>
<p>Student Objectives (The student will...):</p> <p>TSW draw waves and label specific wave characteristics.</p> <p>TSW measure and calculate the speed of a wave</p> <p>TSW identify different waves and relative energy levels of waves</p> <p>TSW understand the practical implications of waves in everyday life.</p>	
<p>Assessments:</p> <p>Discussions, Worksheets, Labs, Quiz, &amp; Test</p>	
<p>Recommended Texts:</p> <p>Physical Setting - Physics</p>	<p>Resources:</p> <p>Powerpoint</p> <p>Online Media</p>

## General Brown Central School District Curriculum Map

Course Title: Science in our Lives	Prepared By: D. Newvine
Time Frame: 1/2 - 1/15	Unit/Theme Electricity & Magnetism
<p>Essential Questions:</p> <p>Where does charge come from?</p> <p>How can we produce charge ourselves?</p> <p>How does electricity work?</p>	
<p>NYS Standards:</p> <p>WHST.9 - 12.9</p> <p>HSN - Q.A.3</p> <p>HS - PS2 - 5</p>	<p>Vocabulary:</p> <p>Charge</p> <p>Particles</p> <p>Coulomb</p> <p>Current</p> <p>Resistance</p> <p>Voltage</p> <p>Power</p> <p>Circuits</p> <p>Magnets</p> <p>E &amp; M Fields</p>
<p>Student Objectives (The student will...):</p> <p>TSW determine the amount of charge near an electric field.</p> <p>TSW calculate associated circuit quantities.</p> <p>TSW correctly draw the directions of E &amp; M fields.</p>	
<p>Assessments:</p> <p>Discussions, Worksheets, Labs, Quiz, &amp; Test</p>	
<p>Recommended Texts:</p> <p>Physical Setting - Physics</p>	<p>Resources:</p> <p>Powerpoint</p> <p>Online Media</p>

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