



## GSE High School Chemistry Curriculum Map

These are bundles of core ideas from the Georgia Standards of Excellence related to an anchoring phenomenon. This document is part of a framework that includes lessons and resources

Instructional Segment	Atoms and Periodicity	Properties and Bonding	Chemical Reactions	Solutions, Acids and Bases
<b>Estimated Time</b>	4 weeks	8 weeks	12 weeks	8 weeks
<b>Crosscutting Concepts</b>	<ul style="list-style-type: none"> <li>● Patterns</li> <li>● Systems and system models</li> <li>● Structure and function</li> <li>● Energy and Matter</li> </ul>	<ul style="list-style-type: none"> <li>● Patterns</li> <li>● Cause and Effect</li> <li>● Scale, proportion, and quantity</li> <li>● System and System Models</li> <li>● Energy and Matter</li> </ul>	<ul style="list-style-type: none"> <li>● Patterns</li> <li>● Scale, proportion, and quantity</li> <li>● System and System Models</li> </ul>	<ul style="list-style-type: none"> <li>● Cause and Effect</li> <li>● System and System Models</li> <li>● Scale, proportion, and quantity</li> <li>● Structure and Function</li> </ul>
<b>Anchoring Phenomenon</b>	Fireworks	Elephant Toothpaste	Electrolysis of Water	Milk of Magnesia Demonstration
<b>Core Ideas</b>	<ul style="list-style-type: none"> <li>● Atomic structure</li> <li>● Models of the atom</li> <li>● Electronic configurations</li> <li>● Atomic emission spectra</li> </ul>	<ul style="list-style-type: none"> <li>● Chemical and physical properties</li> <li>● Intermolecular forces</li> <li>● Intramolecular forces</li> <li>● Law of conservation of matter</li> <li>● Indicators of a chemical reaction</li> <li>● Effect of a catalyst</li> </ul>	<ul style="list-style-type: none"> <li>● Balancing chemical reactions</li> <li>● Synthesis</li> <li>● Decomposition</li> <li>● Single &amp; Double replacement</li> <li>● Combustion</li> <li>● Periodic trends</li> <li>● Identifying indicators of chemical reactions</li> <li>● Precipitation</li> </ul>	<ul style="list-style-type: none"> <li>● Modeling dissolving versus dissociation</li> <li>● Percent dissociation of acids and bases</li> <li>● Hydronium ion concentration</li> <li>● pH</li> <li>● Arrhenius model of acids and bases</li> <li>● Bronsted-Lowry model of acids and bases</li> <li>● Acid-base neutralization</li> </ul>
<b>Science and Engineering Practices</b>	<b>Obtain, Evaluate, &amp; Communicate Information</b>			
	<ul style="list-style-type: none"> <li>● Asking questions and defining problems</li> <li>● Developing and using models</li> </ul>	<ul style="list-style-type: none"> <li>● Planning and carrying out investigations</li> </ul>	<ul style="list-style-type: none"> <li>● Asking questions</li> <li>● Developing and using models</li> </ul>	<ul style="list-style-type: none"> <li>● Asking questions</li> <li>● Planning and carrying out investigations</li> <li>● Constructing explanations</li> </ul>

	<ul style="list-style-type: none"> <li>● Planning and carrying out investigations</li> <li>● Analyzing and interpreting data</li> <li>● Constructing explanations and designing solutions</li> <li>● Engaging in argument from evidence</li> </ul>		<ul style="list-style-type: none"> <li>● Planning and carrying out investigations</li> <li>● Analyzing and interpreting data</li> <li>● Using mathematics and computational thinking</li> </ul>	<ul style="list-style-type: none"> <li>● Analyzing and interpreting data</li> <li>● Engaging in argument from evidence</li> </ul>
<b>GSE</b>	<b>SC1a, b, e, f, g</b>	<b>SC1.c, f, SC2.a, b, c, d, e, SC2.b, c, d, e, SC3.b, SC4.c, SC5.b, c</b>	<b>SC2.g, SC3.a, b, c, d, e, SC4.a, b, c, d, SC5.a</b>	<b>SC6. a, b, c, d, e, f, g, h</b>