

Introduction to Chemistry, Physics, and Earth Science Course Map  
Prepared by Mrs. Karr

Month	Unit	Topics
<i>August/September</i>  <i>January/February</i>	Atomic Structure	<ul style="list-style-type: none"> <li>• Elements</li> <li>• Subatomic particles</li> <li>• Structural models</li> <li>• Isotopes</li> </ul>
<i>October</i>  <i>March</i>	Periodic Table  Chemical Bonding	<ul style="list-style-type: none"> <li>• Physical/Chemical properties</li> <li>• Elements, compounds, and mixtures</li> <li>• Families and periods</li> <li>• Valence electrons and electron affinity</li> <li>• Ionic and covalent bonding</li> <li>• Compounds</li> <li>• Molecules</li> <li>• Writing and naming chemical formulas</li> </ul>
<i>November/December</i>  <i>April/May</i>	Solutions  Chemical Reactions  Acids and Bases	<ul style="list-style-type: none"> <li>• Solute and solvent</li> <li>• Concentration calculations</li> <li>• Types of solutions: concentrated, dilute, saturated, supersaturated</li> <li>• Solubility</li> <li>• Reactants and products</li> <li>• Conservation of mass and balancing equations</li> <li>• Types of reactions</li> <li>• Definitions: acid, base, salt</li> <li>• Strength of acid/base</li> <li>• Calculating pH, pOH, hydronium and hydroxide ion concentrations</li> </ul>

This is a draft course map. Changes will be made by the instructor when necessary.