

## TEST 1 STUDY GUIDE

<i>Topic</i>	<i>Text Reference</i>
<b>CHAPTER 1</b>	
<ul style="list-style-type: none"> <li>• Know what the science of chemistry is and how it relates to us</li> <li>• Know the steps in scientific method</li> <li>• Know the SI units of measurement for mass, length, and volume</li> <li>• Convert from decimal notation to scientific notation and vice versa</li> <li>• Perform mathematical operations with scientific notation</li> <li>• Determine the number of significant digits in a measurement</li> <li>• Round numbers to a specified number of significant digit</li> <li>• Determine the number of significant digits in a calculated answer</li> <li>• Perform metric conversions involving the SI prefixes (M, k, c, m, <math>\mu</math>)</li> <li>• Perform English to metric conversions with given conversion factors</li> <li>• Use conversion factors to solve problems involving units</li> <li>• Calculate density and use to determine mass and volume</li> </ul>	Notes P.2 1.1 1.2 1.2 1.3 1.4 1.4 1.5 1.6 1.7 1.8
<b>CHAPTER 2</b>	
<ul style="list-style-type: none"> <li>• Know the definition and the two types of energy</li> <li>• Convert temperatures between F, °C, and K</li> <li>• Understand the conceptual difference between temperature and heat</li> <li>• Know what specific heat is and how it affect behavior of matter</li> <li>• Calculate heat based on mass, specific heat and temperature</li> <li>• Calculate the energy value of foods</li> <li>• Classify matter as element, compound or mixture</li> <li>• Know the definition and characteristics of elements, compounds and mixtures</li> <li>• Differentiate between a homogeneous and heterogeneous mixture</li> <li>• Differentiate between compounds and mixtures</li> <li>• Know the definition and characteristics of the 3 states of matter</li> <li>• Differentiate between physical and chemical properties of matter</li> <li>• Differentiate between physical and chemical changes</li> <li>• Know the various changes of states and the energies associated with each</li> <li>• Calculate the energy of the phase changes using heats of fusion and vaporization</li> <li>• Identify the various steps in the heating curve of a substance</li> <li>• Calculate the energy of multi-step heating or cooling curves</li> </ul>	2.1 2.2 Notes 2.3 2.3 2.4 2.5 2.5 2.5 Notes 2.6 2.6 2.6 2.7 2.7 2.7 2.7