

TEST 1 STUDY GUIDE

<i>Topic</i>	<i>Text Reference</i>
<u>CHAPTER 1</u>	
<ul style="list-style-type: none"> • Know what the science of chemistry is and how it relates to us • Know the steps in scientific method 	1.2-1.3 1.4
<u>CHAPTER 2</u>	
<ul style="list-style-type: none"> • Convert from decimal notation to scientific notation and vice versa • Perform mathematical operations with scientific notation • Determine the number of significant digits in a measurement • Round numbers to a specified number of significant digit • Determine the number of significant digits in a calculated answer • Know the SI units of measurement for mass, length, and volume • Perform metric conversions involving the SI prefixes (k, c, m, μ) • Perform English to metric conversions with given conversion factors • Calculate volume of regularly shaped objects (i.e. cube, cylinder, etc.) • Be familiar with use of square and cubic conversion factors • Differentiate between accuracy and precision • Use dimensional analysis to solve problems involving units • Calculate density and use to determine mass and volume 	2.2 Notes 2.3 2.4 2.4 2.5 2.6 2.6 Notes 2.8 Notes 2.7; 2.10 2.9
<u>CHAPTER 3</u>	
<ul style="list-style-type: none"> • Differentiate between the 3 states of matter from a molecular view • Classify matter as element, compound or mixture • Differentiate between physical and chemical properties of matter • Differentiate between physical and chemical changes • Differentiate between compounds and mixtures • Know the Law of Conservation of Mass and what information it provides • Know the definition and the two types of energy • Know the various units of energy and conversions between each • Know the difference between exothermic and endothermic reactions • Know the scientific definition of heat and temperature and distinguish between them. • Convert between different units of temperature • Know what specific heat capacity is and how it affect behavior of matter • Calculate heat based on mass, specific heat and temperature 	3.3 3.4 3.5 3.6 Notes 3.7 3.8 3.8 3.9 3.10 3.10 3.11 3.12