OpenStax	Learning Outcomes	
1.1	Recognize the steps of the scientific method.	
1.2	Classify matter.	
1.2		Identify and describe the three states of matter.
1.2		Distinguish between substances and mixtures.
1.2		Identify substances as elements or compounds.
1.2		Identify mixtures as homogeneous or heterogeneous.
1.3	Identify and provide examples of properties of matter.	
1.3		Distinguish between physical and chemical changes.
1.3		Identify properties as physical or chemical.
1.3		Give examples of physical and chemical changes and chemical and physical properties.
1.3		Distinguish between intensive and extensive properties.
1.3		Produce examples of intensive and extensive properties.
1.4	Demonstrate knowledge of units, their abbreviations, and relationships among them.	
1.4		Identify the SI base units, including the symbol, and the quantity they are used to measure.
1.4		Recognize metric prefixes, their symbol, and their meaning.
1.4		Write relationships between quantities with different metric prefixes..
1.4		Recall the difference between mass and weight
1.4	Determine when and how to use numbers in scientific notation.	
1.4		Convert numbers between standard and scientific notations.
1.4		Use numbers in scientific notation in calculations.
1.4	Describe and use derived units.	
1.4		Identify the SI-derived unit for volume.
1.4		Give examples of common units of volume.
1.4		Define density.
1.4		Calculate density from given values of mass and volume.
1.4	Convert temperatures between Celsius and Kelvin.	
1.4		Identify the common scales used for temperature.
1.4		Relate how the temperature scales compare to each other.
1.5	Apply rules of significant figures.	
1.5		Summarize the importance of significant figures.
1.5		Label numbers in a quantity as significant or not.
1.5		Define exact number.
1.5		Classify numbers as exact or not.
1.5		State the rule for determining significant figures in addition and subtraction.
1.5		Complete calculations with addition and subtracting using the rules for significant figures.
1.5		State the rule for determining significant figures in multiplication and division.
1.5		Complete calculations with multiplication and division using the rules for significant figures.
1.5		Complete calculations that involve both addition/subtraction and multiplication/division.
1.5	Distinguish between precision and accuracy.	
1.5		Define precision and accuracy.
1.5		Analyze data to label as precise, accurate, neither, or both.
1.6	Solve problems using dimensional analysis.	
1.6		Build a problem solving plan by analyzing what is given in a chemical problem and construct a path to obtain an answer.
1.6		Apply dimensional analysis methods to convert between units in a one step process.
1.6		Apply dimensional analysis in a multi step conversions.
1.6		Apply dimensional analysis involving units raised to a power.