

Physical Science 4th Nine Weeks: Scope and Sequence

<h2 style="text-align: center;">Content Standards and Learning Objectives</h2>	Dates Taught	% of Students scoring 70% and over	Dates Re-taught (Optional)	Formative and Summative Assessments/ (Any Additional Comments Optional)
(5) Classification of Matter <ul style="list-style-type: none"> • Compare and contrast physical and chemical changes and properties. • Classifications of solids, liquids, and gases • Describe the particle movement in four states of matter 				
(1) Properties of Atoms and the Periodic Table <ul style="list-style-type: none"> • Recognize periodic trends of elements, including the number of valence electrons, atomic size, and reactivity • Explain the organization of the Periodic table 				
(3) Contrast the formation of ionic and covalent bonds based on the transfer or sharing of valence electrons. <ul style="list-style-type: none"> • Demonstrating the formation of positive and negative ions by using electron dot diagrams. • Recognize the valence electrons are involved in the formation of bonds. Explain how the number of valence electrons determines the type of bond among elements. • Use atomic number to identify isotopes. 				
(4) Use nomenclature and chemical formulas to write balanced chemical equations. <ul style="list-style-type: none"> • Explain the law of conservation of matter. • Identify the reactants and products in a chemical reaction. Identify chemical reactions as synthesis (composition), decomposition, single replacement, and double replacement. • Define the role of electrons in chemical reactions. 				
(2) Identify solutions in terms of ionic and covalent bonds based on the transfer or sharing of valence electrons. <ul style="list-style-type: none"> • Compare saturated, unsaturated, and supersaturated solutions. • Describe factors that affect solubility and rate of solutions, including nature of solute and solvent, temperature, agitation, surface area, and pressure on gases. • Compare and contrast acids and bases and identify the characteristics they have including the concentration represented by pH. 				

(12) Describe the nuclear composition of unstable isotopes and the resulting changes to their nuclear composition. <ul style="list-style-type: none">• Identify types of nuclear emissions, including alpha particles, beta particles, and gamma radiation• Differentiate between fission and fusion.• Identify uses and possible negative sides to nuclear technology.				