

Planned Course: Physical Science		Course Number: 400	Department: Science
Unit 7: Elements and the Periodic Table		Grade Level: 9th	
Estimated Time: 4 weeks		Level/Track: General	Date Approved: 9/25/2014
PA Academic Standards	Core Concepts (in question format) • Skills/Knowledge	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)

<p>3.2 Physical Science: Chemistry and Physics</p> <p>3.2.10.A1</p> <ul style="list-style-type: none"> Predict properties of elements using trends of the periodic table. Identify properties of matter that depend on sample size. <p>3.2.C.A1</p> <ul style="list-style-type: none"> Differentiate between physical properties and chemical properties. Explain the relationship of an element's position on the periodic table to its atomic number, electronegativity, atomic size, and classification of elements. <p>3.2.10.A2</p> <ul style="list-style-type: none"> Compare and contrast different bond types that result in the formation of molecules and compounds. Explain why compounds are composed of integer ratios of elements. <p>Biology Keystone Anchor</p>	<p>▶ What is the structure of an atom and how does it affect the properties of matter?</p> <ul style="list-style-type: none"> The student will explain that matter is made of particles called atoms The student will explain that atoms are composed of even smaller particles. The student will be able to recognize and describe the levels of biological organization. The student will explain how the relationship of chemical properties of elements are represented in the repeating patterns within the periodic theory of matter The student will use the kinetic theory of matter to explain the characteristics of solids, liquids and gases of the atom. 	<ul style="list-style-type: none"> Element Builder gizmo Adopt and element PowerPoint presentation Periodic table activity Nuclear Atom packet Cereal Lab Periodic table Challenge Marshmallow Madness Rutherford Experiment 	<ul style="list-style-type: none"> Student lab reports on all core concepts Graded worksheets on all core concepts Periodic table activity packet Quiz on all core concepts Cereal lab write up Teacher made test on all core concepts
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BIO.A.1 Basic Biological Principles BIO.A.1.2.2 Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms).					
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