

Subject: 9th Grade Physical Science		Updated: October 2016
1st Quarter – 9 weeks		
Unit/Theme: Metric System, Scientific Method, and Physics		
Big Ideas:		
<ul style="list-style-type: none"> <input type="checkbox"/> The metric system is the international system used for making measurements <input type="checkbox"/> Scientific skills are required when organizing and representing data <input type="checkbox"/> The scientific method is the process of doing science <input type="checkbox"/> Newton's Law of Motion correctly describe how objects move and affect one another 		
Essential Questions:	Academic Vocabulary:	
<ul style="list-style-type: none"> <input type="checkbox"/> Why is the metric system a better system for scientists than the English standard system? <input type="checkbox"/> Does the shape or amount of an object influence its density? <input type="checkbox"/> Why are graphs important when representing scientific data? <input type="checkbox"/> How does the type of data influence the graph being used? <input type="checkbox"/> What information can be obtained from viewing a graph? <input type="checkbox"/> Why is it important for all scientists to use the same process? <input type="checkbox"/> What are the steps in the scientific method? <input type="checkbox"/> How do the variables of distance and time determine speed? <input type="checkbox"/> What is the difference between speed and velocity? <input type="checkbox"/> What is a vector? <input type="checkbox"/> Can an object have a negative acceleration? <input type="checkbox"/> Can an object have a constant speed and be accelerating? 	<ul style="list-style-type: none"> <input type="checkbox"/> Accuracy <input type="checkbox"/> Conversion factors <input type="checkbox"/> Dimensional analysis <input type="checkbox"/> Distance <input type="checkbox"/> English System <input type="checkbox"/> Length <input type="checkbox"/> Mass <input type="checkbox"/> Measurement <input type="checkbox"/> Meter <input type="checkbox"/> Precision <input type="checkbox"/> Resolution <input type="checkbox"/> SI <input type="checkbox"/> Significant digits <input type="checkbox"/> Unit <input type="checkbox"/> Density <input type="checkbox"/> Dependent variable <input type="checkbox"/> Gram <input type="checkbox"/> Graph <input type="checkbox"/> Independent variable <input type="checkbox"/> Kilogram <input type="checkbox"/> Scatterplot Graph <input type="checkbox"/> Line graph <input type="checkbox"/> Bar graph <input type="checkbox"/> Volume <input type="checkbox"/> Weight <input type="checkbox"/> Control variable <input type="checkbox"/> Experiment <input type="checkbox"/> Hypothesis <input type="checkbox"/> Natural law <input type="checkbox"/> Procedure <input type="checkbox"/> Repeatable <input type="checkbox"/> Scientific method 	

- Theory
- Trial
- Position
- Average speed
- Acceleration due to gravity
- Projectile
- Speed
- Velocity
- Coordinates
- Constant speed
- Acceleration
- Vector
- Axis
- Slope
- Free fall

Content	Standards	Skills	Assessments	Resources
<ul style="list-style-type: none"> <input type="checkbox"/> Metric System: Measurements, SI Units, Dimensional Analysis <input type="checkbox"/> Density: Mass, Volume, Measurement <input type="checkbox"/> Graphs: Data, Pictorial Data <input type="checkbox"/> Scientific Method: Experiments, Independent Variable, Dependent Variable, Control Variable <input type="checkbox"/> Motion: Speed, Velocity, Acceleration, Distance, Time, Gravity 	<ul style="list-style-type: none"> <input type="checkbox"/> HS-PS2-1 Students who demonstrate understanding can: Analyze data and use it to support the claim that Newton’s second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. 	<ul style="list-style-type: none"> <input type="checkbox"/> Measure different items <input type="checkbox"/> Convert metric units <input type="checkbox"/> Convert metric to English units <input type="checkbox"/> Measure mass and volume of regular and irregular objects <input type="checkbox"/> Calculate density <input type="checkbox"/> Comparing density of objects <input type="checkbox"/> Collect data <input type="checkbox"/> Organize data <input type="checkbox"/> Analyze data to create graphs <input type="checkbox"/> Interpret graphs <input type="checkbox"/> Perform experiments <input type="checkbox"/> Identify variables <input type="checkbox"/> Draw conclusions <input type="checkbox"/> Measure time <input type="checkbox"/> Calculate speed <input type="checkbox"/> Calculate velocity <input type="checkbox"/> Calculate acceleration <input type="checkbox"/> Measure distances <input type="checkbox"/> Algebraically solve for unknown variable 	<ul style="list-style-type: none"> <input type="checkbox"/> Weekly Chapter Quizzes <input type="checkbox"/> Chapter Tests <input type="checkbox"/> Mastery Connect Pre and Post Test <input type="checkbox"/> Unit Tests <input type="checkbox"/> Vocabulary Quiz <input type="checkbox"/> Physics Equations Quizzes <input type="checkbox"/> Common Assessment Semester Final (Mastery Connect) 	<ul style="list-style-type: none"> <input type="checkbox"/> Foundation of Physical Science 3rd Edition CPO Science <input type="checkbox"/> http://curiosityplace.schoolspecialty.com/ <input type="checkbox"/> http://www.hhmi.org <input type="checkbox"/> Mythbusters <input type="checkbox"/> CPO Physical Science Kits <input type="checkbox"/> Despicable Me video clip on vectors <input type="checkbox"/> https://www.youtube.com/watch?v=b0Ie0DIMbI8

Subject: 9th Grade Physical Science		Updated: October 2016
2nd Quarter –9 weeks		
Unit/Theme: Physics		
Big Ideas:		
<ul style="list-style-type: none"> <input type="checkbox"/> Newton's Law of Motion correctly describe how objects move and affect one another <input type="checkbox"/> Momentum of a system is defined as mass times the velocity of the object <input type="checkbox"/> Conservation of Momentum states that the total momentum stays the same <input type="checkbox"/> Magnetic and Electrical fields can influence objects across a distance 		
Essential Questions:		Academic Vocabulary:
<ul style="list-style-type: none"> <input type="checkbox"/> What is a Newton? <input type="checkbox"/> How do force affect the motion of an object? <input type="checkbox"/> Can energy be created or destroyed? <input type="checkbox"/> What are Newton's three laws? <input type="checkbox"/> Which is harder to move, a rolling object or a sliding object? <input type="checkbox"/> Is an object with a net force moving? <input type="checkbox"/> Why does an elephant go further on a skateboard than a human? <input type="checkbox"/> If two objects of significantly different masses collide, what happens? <input type="checkbox"/> What portion of the electromagnetic spectrum can people see? <input type="checkbox"/> What types of waves are harmful to humans? <input type="checkbox"/> How is energy transformed within a closed system? <input type="checkbox"/> How does the density of mediums affect waves? 		<ul style="list-style-type: none"> <input type="checkbox"/> Balanced <input type="checkbox"/> Newton <input type="checkbox"/> Sliding friction <input type="checkbox"/> Weight <input type="checkbox"/> Compression <input type="checkbox"/> Friction <input type="checkbox"/> Normal force <input type="checkbox"/> Static friction <input type="checkbox"/> Force <input type="checkbox"/> Equilibrium <input type="checkbox"/> Net force <input type="checkbox"/> Tension <input type="checkbox"/> Newton's 1st Law <input type="checkbox"/> Newton's 2nd Law <input type="checkbox"/> Newton's 3rd Law <input type="checkbox"/> Momentum <input type="checkbox"/> Unbalanced forces <input type="checkbox"/> Inertia <input type="checkbox"/> Law of Conservation of Energy <input type="checkbox"/> Potential energy <input type="checkbox"/> Mechanical energy <input type="checkbox"/> Kinetic energy <input type="checkbox"/> Chemical energy <input type="checkbox"/> Nuclear energy <input type="checkbox"/> Energy <input type="checkbox"/> Radiant energy <input type="checkbox"/> Joule <input type="checkbox"/> Electromagnet <input type="checkbox"/> Electromagnetic induction <input type="checkbox"/> Generator <input type="checkbox"/> Magnetic <input type="checkbox"/> Magnetic field <input type="checkbox"/> Permanent Magnet

- Rotor
- Wave
- Period
- Frequency
- Amplitude
- Resonance
- Wavelength
- Harmonic motion
- Hertz
- Natural frequency

Content	Standards	Skills	Assessments	Resources
<ul style="list-style-type: none"> <input type="checkbox"/> Newton's Second Law <input type="checkbox"/> Momentum: Force, Mass, Velocity <input type="checkbox"/> Conservation of Momentum: Collisions <input type="checkbox"/> Friction <input type="checkbox"/> Electromagnetic Spectrum: Waves, Energy <input type="checkbox"/> Waves: Amplitude, Frequency, Period, Wavelength 	<ul style="list-style-type: none"> <input type="checkbox"/> HS-PS2-1 Students who demonstrate understanding can: Analyze data and use it to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. <input type="checkbox"/> HS-PS2-2 Students who demonstrate understanding can: Use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system. <input type="checkbox"/> HS-PS2-3 Students who demonstrate understanding can: Apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.* <input type="checkbox"/> HS-PS2-5 Students who demonstrate understanding can: Plan and conduct an 	<ul style="list-style-type: none"> <input type="checkbox"/> Determine momentum <input type="checkbox"/> Apply the Law of Conservation of Momentum when describing the motion of colliding objects <input type="checkbox"/> Describe action-reaction force pairs <input type="checkbox"/> Describe the relationship between net force and acceleration <input type="checkbox"/> Apply Newton's second law quantitatively <input type="checkbox"/> Describe how forces cause changes in motion <input type="checkbox"/> Explain what happens when objects collide in terms of Newton's third law 	<ul style="list-style-type: none"> <input type="checkbox"/> Weekly Chapter Quizzes <input type="checkbox"/> Chapter Tests <input type="checkbox"/> Mastery Connect Pre and Post Test <input type="checkbox"/> Unit Tests <input type="checkbox"/> Vocabulary Quiz <input type="checkbox"/> Physics Equations Quizzes <input type="checkbox"/> Common Assessment Semester Final (Mastery Connect) 	<ul style="list-style-type: none"> <input type="checkbox"/> Foundation of Physical Science 3rd Edition CPO Science <input type="checkbox"/> http://curiosityplace.schoolspecialty.com/ <input type="checkbox"/> http://www.hhmi.org <input type="checkbox"/> Mythbusters <input type="checkbox"/> CPO Physical Science Kits

	<p>investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current.</p> <ul style="list-style-type: none"><li>❑ HS-PS3-1 Students who demonstrate understanding can: Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.<li>❑ HS-PS3-2 Students who demonstrate understanding can: Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as either motions of particles or energy stored in fields.<li>❑ HS-PS4-1 Students who demonstrate understanding can: Use mathematical representations to support a claim			
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regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.

- HS-PS4-4 Students who demonstrate understanding can: Evaluate the validity and reliability of claims in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter

Subject: 9th Grade Physical Science		Updated: October 2016
3th Quarter - Estimated Time: 2 weeks		
Unit/Theme: Physics		
Big Ideas: <ul style="list-style-type: none"><input type="checkbox"/> Technology shapes our modern society<input type="checkbox"/> Energy can change forms		
Essential Questions: <ul style="list-style-type: none"><input type="checkbox"/> How accurately can a mouse trap launch a ping pong ball?<input type="checkbox"/> Is the storage of digital data safe?<input type="checkbox"/> How do you limit the risk of identity theft?	Academic Vocabulary: <ul style="list-style-type: none"><input type="checkbox"/> Elastic Force<input type="checkbox"/> Potential energy<input type="checkbox"/> Kinetic energy<input type="checkbox"/> Trajectory<input type="checkbox"/> Force<input type="checkbox"/> Accuracy<input type="checkbox"/> Precision<input type="checkbox"/> Work<input type="checkbox"/> Memory<input type="checkbox"/> Digital information<input type="checkbox"/> Digitized<input type="checkbox"/> Pixels	

Content	Standards	Skills	Assessments	Resources
<ul style="list-style-type: none"> <input type="checkbox"/> Digital Information: Storage, Security, Risk <input type="checkbox"/> Engineering Project: Ping Pong Ball Launcher 	<ul style="list-style-type: none"> <input type="checkbox"/> HS-PS4-2 Students who demonstrate understanding can: Evaluate questions about the advantages and disadvantages of using a digital transmission and storage of information. <input type="checkbox"/> Clarification Statement: Examples of advantages could include that digital information is stable because it can be stored reliably in computer memory, transferred easily, and copied and shared rapidly. Disadvantages could include issues of easy deletion, security, and theft. <input type="checkbox"/> HS-PS3-3 Students who demonstrate understanding can: Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy. <input type="checkbox"/> Clarification Statement: Emphasis is on both qualitative and quantitative evaluations of 	<ul style="list-style-type: none"> <input type="checkbox"/> Design plans <input type="checkbox"/> Construct device <input type="checkbox"/> Evaluate device <input type="checkbox"/> Modify device <input type="checkbox"/> Demonstrate device's accuracy <input type="checkbox"/> Understand online risks <input type="checkbox"/> Identify weaknesses in online behaviors 	<ul style="list-style-type: none"> <input type="checkbox"/> Ping Pong Ball Launcher Performance Grader <input type="checkbox"/> Chapter Quiz 	<ul style="list-style-type: none"> <input type="checkbox"/> Foundation of Physical Science 3rd Edition CPO Science <input type="checkbox"/> http://curiosityplace.schoolspecialty.com/ <input type="checkbox"/> http://www.hhmi.org <input type="checkbox"/> Oklahoma Engineering Foundation <input type="checkbox"/> http://oef.org/programs/engineering-fair/contest-rule

	<p>devices. Examples of devices could include Rube Goldberg devices, wind turbines, solar cells, solar ovens, and generators. Examples of constraints could include use of renewable energy forms and efficiency</p>			
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Subject: 9th Grade Physical Science	Updated: November 11
3rd Quarter - Estimated Time: 7 weeks	
Unit/Theme: Chemistry	
Big Ideas: <ul style="list-style-type: none"> <input type="checkbox"/> Everything is made of atoms <input type="checkbox"/> Atoms make up elements <input type="checkbox"/> The elements are organized into the periodic table 	
Essential Questions: <ul style="list-style-type: none"> <input type="checkbox"/> What subatomic particles make up an atom? <input type="checkbox"/> What are the charges on each subatomic particle? <input type="checkbox"/> Where are the subatomic particles located within the atom? <input type="checkbox"/> An individual element has how many types of atoms? <input type="checkbox"/> Are elements on Earth the same as elements on the Mars? <input type="checkbox"/> How are elements organized in the periodic table? <input type="checkbox"/> What are groups and periods? <input type="checkbox"/> How is the oxidation number of an element related to its group? <input type="checkbox"/> What does the element's location within the periodic table tell about its atomic structure? 	Academic Vocabulary: <ul style="list-style-type: none"> <input type="checkbox"/> Atomic number <input type="checkbox"/> Energy level <input type="checkbox"/> Neutron <input type="checkbox"/> Quantum theory <input type="checkbox"/> Electron <input type="checkbox"/> Isotopes <input type="checkbox"/> Nucleus <input type="checkbox"/> Radioactive <input type="checkbox"/> Mass number <input type="checkbox"/> Spectroscope <input type="checkbox"/> Group <input type="checkbox"/> Period <input type="checkbox"/> Physical change <input type="checkbox"/> Atomic mass <input type="checkbox"/> Chemical change <input type="checkbox"/> Periodicity <input type="checkbox"/> Electrical conductor <input type="checkbox"/> Insulator <input type="checkbox"/> Nonmetals <input type="checkbox"/> Periodic table <input type="checkbox"/> Thermal conductor <input type="checkbox"/> Metals <input type="checkbox"/> Metalloids <input type="checkbox"/> Alkali metals <input type="checkbox"/> Alkaline Earth metals <input type="checkbox"/> Halogens <input type="checkbox"/> Noble gases <input type="checkbox"/> Orbitals <input type="checkbox"/> Charges

Content	Standards	Skills	Assessments	Resources
<ul style="list-style-type: none"> <input type="checkbox"/> Atom: Proton, Neutron, and Electron <input type="checkbox"/> Orbitals, Shells <input type="checkbox"/> Charges: Positive, Negative, and Neutral <input type="checkbox"/> Mass Number, Atomic Number, Element Symbol <input type="checkbox"/> Metals, Nonmetals, and Metalloids <input type="checkbox"/> Conductor and Insulator <input type="checkbox"/> Solid, Liquid, Gas <input type="checkbox"/> Alkali Metals <input type="checkbox"/> Alkaline Earth Metals <input type="checkbox"/> Halogens <input type="checkbox"/> Noble Gasses <input type="checkbox"/> Atomic Size <input type="checkbox"/> Reactivity <input type="checkbox"/> Period <input type="checkbox"/> Family <input type="checkbox"/> Transition Metals 	<ul style="list-style-type: none"> <input type="checkbox"/> HS-PS1-1 Students who demonstrate understanding can: Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms. <input type="checkbox"/> Clarification Statement: Examples of properties that could be predicted from patterns could include reactivity of metals, types of bonds formed, numbers of bonds formed, and reactions with oxygen. 	<ul style="list-style-type: none"> <input type="checkbox"/> Identify location of the subatomic particles in the atom <input type="checkbox"/> Demonstrate the correct placement of the electrons <input type="checkbox"/> Determine the number of orbitals around an atom <input type="checkbox"/> Assign the correct charge associated with the correct subatomic particle <input type="checkbox"/> Label the elements with the correct type of matter <input type="checkbox"/> Determine which elements are conductive and nonconductive (insulator) <input type="checkbox"/> Label the elements with correct state of matter <input type="checkbox"/> Identify the groups with their correct family name <input type="checkbox"/> Identify the periodic trends <input type="checkbox"/> Interpret the periodic table using the information found in the element's box 	<ul style="list-style-type: none"> <input type="checkbox"/> Weekly Chapter Quizzes <input type="checkbox"/> Chapter Tests <input type="checkbox"/> Mastery Connect Pre and Post Test <input type="checkbox"/> Unit Tests <input type="checkbox"/> Vocabulary Quiz <input type="checkbox"/> Chemical Equations Quizzes <input type="checkbox"/> Common Assessment Semester Final (Mastery Connect) 	<ul style="list-style-type: none"> <input type="checkbox"/> Foundation of Physical Science 3rd Edition CPO Science <input type="checkbox"/> http://curiosityplace.schoolspecialty.com/ <input type="checkbox"/> http://www.hhmi.org <input type="checkbox"/> Mythbusters <input type="checkbox"/> CPO Physical Science Kits

Subject: 9th Grade Physical Science	Updated: November 11
4th Quarter - Estimated Time: 9 weeks	
Unit/Theme: Chemistry	
<p>Big Ideas:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Elements combine to form compounds <input type="checkbox"/> Interactions between elements and compounds result in chemical reactions <input type="checkbox"/> Reactions can be categorized into 5 different types <input type="checkbox"/> Atoms or compounds are neither created nor destroyed in chemical reactions <input type="checkbox"/> Compounds have specific ratios of atoms <input type="checkbox"/> The pH scale divides substances into acids and bases <input type="checkbox"/> Reactions can be classified as endothermic or exothermic <input type="checkbox"/> Chemical bonds can form as ionic or covalent <input type="checkbox"/> Fission and fusion are the breaking down and creating of the atomic nuclei 	
<p>Essential Questions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> How do charges relate to how compounds form? <input type="checkbox"/> How can compounds be rearranged to form new compounds? <input type="checkbox"/> What type of reaction does a metal and nonmetal form? <input type="checkbox"/> What type of reaction does a nonmetal and nonmetal form? <input type="checkbox"/> What type of reaction occurs between oxygen and a compound? <input type="checkbox"/> Does all table salt on Earth contain the same elements? <input type="checkbox"/> What is the strongest acid in our bodies? <input type="checkbox"/> Why are bases used for cleaning? <input type="checkbox"/> Where do commonly eaten foods fall on the pH scale? <input type="checkbox"/> What do acids and bases taste like? <input type="checkbox"/> What type of reaction releases thermal energy? <input type="checkbox"/> What type of reaction absorbs thermal energy? <input type="checkbox"/> What are the differences between ionic and covalent bonds? <input type="checkbox"/> Do ionic bonds keep their electrons when a compound breaks apart? <input type="checkbox"/> Which type of chemical bond is the hardest to break? <input type="checkbox"/> What type of reactions take place in a star? <input type="checkbox"/> What type of reactions take place in a nuclear reactor? <input type="checkbox"/> Why is Avogadro an important person in chemistry? 	<p>Academic Vocabulary:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Polyatomic ion <input type="checkbox"/> Chemical formula <input type="checkbox"/> Ionic bonds <input type="checkbox"/> Oxidation numbers <input type="checkbox"/> Organic compound <input type="checkbox"/> Binary compounds <input type="checkbox"/> Valence electrons <input type="checkbox"/> Chemical bonds <input type="checkbox"/> Lewis dot diagrams <input type="checkbox"/> Ion <input type="checkbox"/> Covalent bond <input type="checkbox"/> Reactants <input type="checkbox"/> Precipitate <input type="checkbox"/> Coefficient <input type="checkbox"/> Combustion <input type="checkbox"/> Mole <input type="checkbox"/> Product <input type="checkbox"/> Law of conservation of mass <input type="checkbox"/> Avogadro number <input type="checkbox"/> Formula mass <input type="checkbox"/> Chemical reaction <input type="checkbox"/> Decomposition <input type="checkbox"/> Molar mass <input type="checkbox"/> Inhibitor <input type="checkbox"/> Nuclear reaction <input type="checkbox"/> Exothermic <input type="checkbox"/> Limiting reactant

- Nuclear fusion
- Nuclear fission
- Excess reactant
- Dissolution reaction
- Chemical equilibrium
- Percent yield
- Endothermic
- Reaction rate
- Catalyst
- pH scale
- Solvent
- Equilibrium
- Base
- Acid
- pH
- Solute
- Solubility
- Concentration
- Supersaturated
- Alloy
- Solution
- Saturated
- Hydrogen bond
- Molarity
- unsaturated

Content	Standards	Skills	Assessments	Resources
<ul style="list-style-type: none"> <input type="checkbox"/> Atoms: Protons, Neutrons, Electrons <input type="checkbox"/> 5 Types of Reactions: Single Replacement, Double Replacement, Synthesis, Decomposition, Combustion <input type="checkbox"/> 2 Major Bonds: Covalent and Ionic <input type="checkbox"/> Chemical Equation: Coefficients, Subscripts, Balancing, Reactants, Products <input type="checkbox"/> Conservation of Mass <input type="checkbox"/> pH: Acids, Bases, Neutralization, Disassociation <input type="checkbox"/> Enthalpy: Exothermic and Endothermic <input type="checkbox"/> Moles: Avogadro's Number <input type="checkbox"/> Nuclear Reactions: Fission, Fusion, Critical Mass, Melting, Isotopes, Radioactive, Reactors, Waste, Half-Life 	<ul style="list-style-type: none"> <input type="checkbox"/> HS-PS1-2 Students who demonstrate understanding can: Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, knowledge of the patterns of chemical properties, and formation of compounds. <input type="checkbox"/> Clarification Statement: Examples of chemical reactions could include the reaction of sodium and chlorine, of carbon and oxygen, or of carbon and hydrogen. Reaction classification aids in the prediction of products (e.g. synthesis/combustion, decomposition, single displacement, double displacement). 	<ul style="list-style-type: none"> <input type="checkbox"/> Identify the different characteristics of the different types of reactions <input type="checkbox"/> Describe how covalent bonds and ionic bonds differ <input type="checkbox"/> Balance chemical equations <input type="checkbox"/> Correctly represent the law of conservation of mass in a chemical equation <input type="checkbox"/> Identify the products of different chemical reactions <input type="checkbox"/> Properly place coefficients and subscripts in a chemical equation <input type="checkbox"/> Determine the pH of household products <input type="checkbox"/> Calculate the number of moles in a compound <input type="checkbox"/> Manipulate chemicals and determine if they are exothermic or endothermic reactions <input type="checkbox"/> Differentiate between fission and fusion reactions <input type="checkbox"/> Describe how a nuclear reactor works <input type="checkbox"/> Identify how half lives effect nuclear waste products 	<ul style="list-style-type: none"> <input type="checkbox"/> Weekly Chapter Quizzes <input type="checkbox"/> Chapter Tests <input type="checkbox"/> Mastery Connect Pre and Post Test <input type="checkbox"/> Unit Tests <input type="checkbox"/> Vocabulary Quiz <input type="checkbox"/> Chemical Equations Quizzes <input type="checkbox"/> Common Assessment Semester Final (Mastery Connect) 	<ul style="list-style-type: none"> <input type="checkbox"/> Foundation of Physical Science 3rd Edition CPO Science <input type="checkbox"/> http://curiosityplace.schoolspecialty.com/ <input type="checkbox"/> http://www.hhmi.org <input type="checkbox"/> Mythbusters <input type="checkbox"/> CPO Physical Science Kits <input type="checkbox"/> YouTube on Nuclear Reactor