Standard ID	Standard Text	Edgenuity Lesson Name
WA.HS-PS.	PHYSICAL SCIENCE	
HS-PS1.	Matter and Its Interactions Students who demonstrate understanding can:	
HS-PS1-1.	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.	Elements Periodic Table Metals Nonmetals Metalloids Physical Properties Chemical Properties
HS-PS1-2.	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, and knowledge of the patterns of chemical properties.	Ionic Bonds Covalent Bonds Compounds Polymers Introduction to Chemical Reactions Balancing Chemical Equations Types of Chemical Reactions Rate of Chemical Reactions Lab: Rate of Chemical Reactions
HS-PS1-3.	Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.	States of Matter Ionic Bonds Covalent Bonds
HS-PS1-4.	Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.	Types of Chemical Reactions
HS-PS1-5.	Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.	Lab: Rate of Chemical Reactions
HS-PS1-7.	Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.	Balancing Chemical Equations

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HS-PS1-8.	Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.	Atomic Theory Atoms Radioactivity
HS-PS2.	Motion and Stability: Forces and Interactions Students who demonstrate understanding can:	
HS-PS2-1.	Analyze data 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.	Introduction to Motion Speed and Velocity Acceleration Lab: Motion Newton's Laws of Motion Lab: Newton's Laws of Motion
HS-PS2-2.	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.	Introduction to Forces Momentum
HS-PS2-3.	Apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.	Momentum
HS-PS2-5.	Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current.	Lab: Magnetic and Electric Fields Electromagnetism
HS-PS2-6.	Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials.	Polymers
HS-PS3.	Energy Students who demonstrate understanding can:	
HS-PS3-1.	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.	Lab: Kinetic Energy Lab: Thermal Energy Transfer

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HS-PS3-2.	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.	
		States of Matter Changes of State Work and Power Introduction to Energy Potential and Kinetic Energy Lab: Kinetic Energy Temperature and Thermal Energy Heat Lab: Thermal Energy Transfer Electric Charge Electric Current Ohm's Law Electric Circuits Magnets and Magnetism Lab: Magnetic and Electric Fields
HS-PS3-3.	Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.	
		Momentum Energy Transformations
HS-PS3-4.	Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).	
		Lab: Thermal Energy Transfer
HS-PS3-5.	Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction.	
		Magnets and Magnetism Lab: Magnetic and Electric Fields Electromagnetism
HS-PS4.	Waves and Their Applications in Technologies for Information Transfer Students who demonstrate understanding can:	
HS-PS4-1.	Use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.	
		Properties of Waves Wave Interactions Sound Waves The Electromagnetic Spectrum

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		Properties of Light
HS-PS4-2.	Evaluate questions about the advantages of using a digital transmission and storage of information.	
		Using Sound
HS-PS4-4.	Evaluate the validity and reliability of claims in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter.	
		The Electromagnetic Spectrum
HS-PS4-5.	Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.	
		Using Sound
WA.HS-ETS. HS-ETS1.	ENGINEERING DESIGN Engineering Design Students who demonstrate understanding can:	
HS-ETS1-1.	Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.	
		Nuclear Energy
HS-ETS1-2.	Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.	
		Momentum
HS-ETS1-3.	Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.	
		Momentum
HS-ETS1-4.	Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.	