Standard ID	Standard Text	Edgenuity Lesson Name
NGSS.MS-PS.	PHYSICAL SCIENCE (NGSS)	
MS-PS1.	Matter and Its Interactions	
	Students who demonstrate understanding can:	
MS-PS1-1.	Develop models to describe the atomic composition of simple molecules and extended structures.	Introduction to Matter Physical Properties Density Lab: Density of Solids Atomic Theory Atoms Elements Periodic Table Metals Nonmetals Metalloids Radioactivity Chemical Bonding Ionic Bonds Covalent Bonds Lab: Ionic and Covalent Bonds Compounds Mixtures Solubility Properties of Acids and Bases Acids and Bases in Solution Lab: Acids and Bases
MS-PS1-2.	Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	Chemical Properties Types of Chemical Reactions Rate of Chemical Reactions Lab: Rate of Chemical Reactions
MS-PS1-3.	Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.	Polymers Nonrenewable Resources Renewable Resources

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MS-PS1-4.	Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.	States of Matter Changes of State
MS-PS1-5.	Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.	Balancing Chemical Equations Types of Chemical Reactions Rate of Chemical Reactions Lab: Rate of Chemical Reactions
MS-PS1-6.	Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.	Types of Chemical Reactions Rate of Chemical Reactions Lab: Rate of Chemical Reactions
MS-PS2.	Motion and Stability: Forces and Interactions	
	Students who demonstrate understanding can:	
MS-PS2-1.	Apply Newton's Third Law to design a solution to a problem involving the motion of two colliding objects.	Newton's Laws of Motion Momentum
MS-PS2-2.	Plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.	Introduction to Motion Speed and Velocity Acceleration Lab: Motion Introduction to Forces Friction Gravity Newton's Laws of Motion Lab: Newton's Laws of Motion
MS-PS2-3.	Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.	Electric Charge Magnets and Magnetism Lab: Magnetic and Electric Fields Electromagnetism
MS-PS2-4.	Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.	Gravity

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MS-PS2-5.	Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.	Lab: Magnetic and Electric Fields
MS-PS3.	Energy	
	Students who demonstrate understanding can:	
MS-PS3-1.	Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.	Introduction to Energy Potential and Kinetic Energy Lab: Kinetic Energy Energy Transformations
MS-PS3-2.	Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.	Introduction to Energy Potential and Kinetic Energy Energy Transformations
MS-PS3-3.	Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.	Temperature and Thermal Energy Heat Conduction Convection Radiation Lab: Thermal Energy Transfer
MS-PS3-4.	Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the average kinetic energy of the particles as measured by the temperature of the sample.	Lab: Kinetic Energy
MS-PS3-5.	Construct, use, and present arguments to support the claim that when the motion energy of an object changes, energy is transferred to or from the object.	Potential and Kinetic Energy Energy Transformations
MS-PS4.	Waves and Their Applications in Technologies for Information Transfer	
	Students who demonstrate understanding can:	
MS-PS4-1.	Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave.	Introduction to Waves Properties of Waves The Electromagnetic Spectrum

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MS-PS4-2.	Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.	Wave Interactions Sound Waves Using Sound Properties of Light Reflection and Mirrors Refraction and Lenses Using Light
MS-PS4-3.	Integrate qualitative scientific and technical information to support the claim that digitized signals (sent as wave pulses) are a more reliable way to encode and transmit information.	Using Sound
NGSS.MS-ETS.	ENGINEERING DESIGN (NGSS)	
MS-ETS1.	Engineering Design	
	Students who demonstrate understanding can:	
MS-ETS1-1.	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.	Technological Design
MS-ETS1-2.	Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.	Technological Design
MS-ETS1-3.	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	Technological Design Momentum Radiation
MS-ETS1-4.	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.	Technological Design Momentum Radiation
WA.RST.6-8.	Reading Standards for Literacy in Science and Technical Subjects	
	Key Ideas and Details	
RST.6-8.1.	Cite specific textual evidence to support analysis of science and technical texts.	Renewable Resources

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RST.6-8.2.	Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	Renewable Resources
RST.6-8.3.	Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	Lab: Magnetic and Electric Fields
	Craft and Structure	
RST.6-8.4.	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.	Physical Properties
RST.6-8.5.	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	Newton's Laws of Motion
RST.6-8.6.	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	Renewable Resources
	Integration of Knowledge and Ideas	
RST.6-8.7.	Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	Changes of State
RST.6-8.8.	Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	Renewable Resources
RST.6-8.9.	Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	Newton's Laws of Motion Lab: Newton's Laws of Motion
	Range of Reading and Level of Text Complexity	
RST.6-8.10.	By the end of grade 8, read and comprehend science/technical texts in the grades 6-8 text complexity band independently and proficiently.	Atoms

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WA.WHST.6-8.	Writing Standards for Literacy in Science and Technical Subjects	
	Text Types and Purposes	
WHST.6-8.1.	Write arguments focused on discipline-specific content.	
WHST.6-8.1(a)	Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.	Gravity
WHST.6-8.1(b)	Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.	Gravity
WHST.6-8.1(c)	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.	Gravity
WHST.6-8.1(d)	Establish and maintain a formal style.	Gravity
WHST.6-8.1(e)	Provide a concluding statement or section that follows from and supports the argument presented.	Gravity
WHST.6-8.2.	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	
WHST.6-8.2(a)	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.	Lab: Rate of Chemical Reactions
WHST.6-8.2(b)	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.	Lab: Rate of Chemical Reactions
WHST.6-8.2(c)	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.	Lab: Rate of Chemical Reactions
WHST.6-8.2(d)	Use precise language and domain-specific vocabulary to inform about or explain the topic.	Lab: Rate of Chemical Reactions
WHST.6-8.2(e)	Establish and maintain a formal style and objective tone.	Lab: Rate of Chemical Reactions

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WHST.6-8.2(f)	Provide a concluding statement or section that follows from and supports the information or explanation presented.	Lab: Rate of Chemical Reactions
WHST.6-8.3.	(See note; not applicable as a separate requirement)	
WHST.6-8.3(a)	Note: Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.	
	Production and Distribution of Writing	
WHST.6-8.4.	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Nonrenewable Resources
WHST.6-8.5.	With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.	Periodic Table
WHST.6-8.6.	Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.	Nonrenewable Resources
	Research to Build and Present Knowledge	
WHST.6-8.7.	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	Periodic Table
WHST.6-8.8.	Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	Periodic Table
WHST.6-8.9.	Draw evidence from informational texts to support analysis reflection, and research.	Energy Transformations

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	Range of Writing	
WHST.6-8.10.	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Atoms