

Mendon Middle School Science Curriculum Map
Class: 7th Grade Science

Timeline	Next Generation Science Standard	Learning Targets	Vocabulary	Assessment
September/ October	MS.PS1.1 Structures and Properties of Matter - Develop models to describe the atomic composition of simple molecules and extended structures.	I CAN develop models to describe the atomic composition of simple molecules and extended structures. Develop a model to predict and/or describe phenomena.	Atom Boiling Point Color Crystals Density Flammability Gas Liquid Mass Matter Melting Point Metric Units Mixture Molecules Odor Solid Solubility Solution Volume	Lab report Test/Quiz Written Work Vocab activities Foldable
October	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.	I CAN develop a model to show and describe the result when thermal energy is added or removed. Develop a model to predict and/or describe phenomena.	Chemical change Heat Kinetic Energy Phase Change Physical change Temperature	Test/Quiz Written Work Model Exit Tickets

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<p style="text-align: center;">October/ November</p>	<p>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.</p>	<p>I CAN analyze and interpret data to determine if a chemical reaction has occurred.</p> <p>Analyze and interpret data to determine similarities and differences in findings.</p>	<p>Acid/Base Balanced Compound Element Equation Families Groups Metal/ Nonmetals Periodic Table Product Reactant Reaction Variable</p>	<p>Lab report</p> <p>Test/Quiz</p> <p>Written Work</p> <p>Foldable</p>
<p style="text-align: center;">November</p>	<p>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.</p>	<p>I CAN develop and use a model to describe that mass is converted.</p> <p>Develop a model to describe unobservable mechanisms</p>	<p>Chemical Reactions Conservation Of Mass And Matter Mass Molecules Products Reactants</p>	<p>Lab report</p> <p>Test/Quiz</p> <p>Written Work</p> <p>Notebook</p> <p>Model</p>
<p style="text-align: center;">November/ December</p>	<p>MS-PS1-6 Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.</p>	<p>I CAN design and test a device that either releases or absorbs thermal energy by chemical processes.</p> <p>Undertake a design project, engaging in the design cycle, to construct and/or implement</p>	<p>Energy Scientific Method</p>	<p>Lab report</p> <p>Test/Quiz</p> <p>Written Work</p>

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<p>December/ January</p>	<p>MS-PS1-3 Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.</p>	<p>I CAN gather and use information to describe that synthetic materials come from natural resources and impact our society.</p> <p>Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported</p>	<p>Natural Synthetic</p>	<p>Scientific Articles</p> <p>Exit tickets</p>
<p>January/ February</p>	<p>MS-LS1-1 Conduct an investigation to provide evidence that living things are made of cells; either one cell or many different numbers and types of cells.</p>	<p>I CAN conduct an investigation to provide evidence that living things are made of cells.</p> <p>Conduct an investigation to produce data to serve as the basis for evidence that meet the goals of an investigation.</p>	<p>Animal Cells Anton Van Leeuwenhoek Cell Cell Membrane Cell Theory Cell Wall Cells Chlorophyll Chloroplasts Chromosomes Endoplasmic Reticulum Golgi Complex Lysosome Mitochondria Nucleolus Nucleus Organelle Plant Cell Cytoplasm Ribosome Robert Hooke Vacuole</p>	<p>Test/Quiz</p> <p>Written Work</p> <p>Poster</p> <p>Foldable</p>

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February	MS-LS1-2 Develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function.	I CAN develop and use a model to describe the function of a cell as a whole and ways parts of cells contribute to the function. Develop and use a model to describe phenomena.	Asexual Chromosomes DNA Heredity Nucleic Acid Reproduction RNA Sexual	Test/Quiz Written Work Inquiry Lab Model
	MS-LS1-3 Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.	I CAN use an argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells. Use an oral and written argument supported by evidence to support or refute an explanation or a model for a phenomenon.	Cell Division Differentiation Fertilization Organ Organ System Specialization Stem Cell Tissue	Test/Quiz Written Work Foldable
March	MS-LS1-8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.	I CAN gather and synthesize information that sensory immediate behavior or storage as memories. Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence.	Carbohydrates Carbon Dioxide Cell Respiration Fats Glucose Nutrients Protein	Test/Quiz Written Work Inquiry Lab Project
April	MS-LS1-4 Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the	I CAN use evidence to support how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animal and plants respectively. Use an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem.	Evaporation Groundwater Precipitation Infiltration Surface Runoff Transpiration Condensation Cloud Formation Watershed	Lab report Test/Quiz Written Work Project Exit ticket

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	probability of successful reproduction of animals and plants respectively			
April/May	MS-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.	<p>I CAN construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p> <p>Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.</p>	<p>Atmosphere Condensation Convection Currents Energy Evaporation Sublimation Water cycle</p>	<p>Lab report</p> <p>Test/Quiz</p> <p>Written Work</p>
May	MS-ESS2-5 Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.	<p>I CAN collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.</p> <p>Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions.</p>	<p>Air mass Density High Pressure Low Pressure Humidity Precipitation Wind Weather Maps</p>	<p>Quiz/Test</p> <p>Written Work</p> <p>Exit ticket</p>
June	MS-ESS2-6 Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.	<p>I CAN develop a model to show how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.</p> <p>Develop and use a model to describe phenomena.</p>	<p>Circulation Patterns Coriolis Effect Rotation Latitude Longitude Convection</p>	<p>Test/Quiz</p> <p>Written Work</p> <p>Model</p>
June	MS-ESS3-5 Ask questions to clarify evidence of the factors	<p>I CAN ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.</p>	<p>Weather Air Mass Temperature</p>	<p>Test/Quiz</p>

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	that have caused the rise in global temperatures over the past century.	Ask questions to identify and clarify evidence of an argument	Pressure Thermometer Fossil Fuel Cement Production	Written Work
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