

New York State Science Standards Correlation

Standard Topic	Key Idea	Standard #	Performance Indicator	Inquiry Investigations™ Physical Science Series I - 1013060																	
				UNIT 1 THE WORLD OF PHYSICAL SCIENCE						UNIT 2 HEAT AND ENERGY					UNIT 3 LIGHT AND OPTICS					UNIT 4 ELECTRICITY	
				Exploring the Scientific Method LAB 1013080		Exploring the Science of Measurement LAB 1013082				Exploring Heat and Energy LAB 1013084					Exploring Light and Optics LAB 1013086					Exploring Electricity LAB 1013088	
				Effect of temperature on the emergence of sponge creatures	Effect of pH on the emergence of sponge creatures	The metric system (SI)	Measuring density	Measuring temperature	Measuring pH	Measuring low concentrations of water pollutants	Heat of fusion of ice	Thermal conductivity of different metals	Thermal expansion	Demonstrating radiant heat and energy	Calibration of a thermometer	Visible light spectrum	What is color?	Reflection of light	Polarized light	The laser	The electroscope
Analysis, Inquiry, and Design/Scientific Inquiry	The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing creative process.	1SIC1.1	Elaborate on basic scientific and personal explanations of natural phenomena, and develop extended visual models and mathematical formulations to represent their thinking.																		
		1SIC1.2	Hone ideas through reasoning, library research, and discussion with others, including experts.																		
		1SIC1.3	Work toward reconciling competing explanations; clarifying points of agreement and disagreement.																		
		1SIC1.4	Coordinate explanations at different levels of scale, points of focus, and degrees of complexity and specificity and recognize the need for such alternative representations of the natural world.																		
	Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	1SIC2.1	Devise ways of making observations to test proposed explanations.																		
		1SIC2.2	Refine their research ideas through library investigations, including electronic information retrieval and reviews of the literature, and through peer feedback obtained from review and discussion.																		
		1SIC2.3	Develop and present proposals including formal hypothesis to test their explanations, i.e., they predict what should be observed under specified conditions if the explanation is true.																		
1SIC2.4	Carry out their research plan for testing explanations, including selecting and developing techniques, acquiring and building apparatus and recording observations as necessary.																				
Science / Physical Setting	Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	4PSI3.1	Observe and describe properties of materials, such as density, conductivity, and solubility.																		
		4PSI3.2	Distinguish between chemical and physical changes.																		
		4PSI3.3	Develop their own mental models to explain common chemical reactions and changes in states of matter.																		
	Energy exists in many forms, and when these forms change energy is conserved.	4PSI4.1	Describe the sources and identify the transformations of energy observed in everyday life.																		
		4PSI4.2	Observe and describe heating and cooling events.																		
		4PSI4.3	Observe and describe energy changes as related to chemical reactions.																		
		4PSI4.4	Observe and describe the properties of sound, light, magnetism, and electricity.																		
		4PSI4.5	Describe situations that support the principle of conservation of energy.																		
	4PSI5.2	Observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects.																			

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		Inquiry Investigations™ Physical Science Series II - 1013061																			
Standard Topic	Key Idea	Standard #	Performance Indicator	UNIT 1 GRAVITY				UNIT 2 MAGNETISM				UNIT 3 PROPERTIES OF SOUND				UNIT 4 FORCES, MOTION, AND SIMPLE MACHINES					
				Exploring Gravity LAB 1013090				Exploring Magnetism LAB 1013092				Exploring Sound Waves LAB 1013094				Exploring Force and Motion LAB 1013096			Exploring Simple Machines LAB 1013098		
				Determination of the density of a solid	Learning about gravitation	Archimedes principle	Teacher demonstration - pressure	Investigating the behavior of the magnetic compass	The magnetic field of a bar magnet	Constructing an electromagnet	Electromagnetic induction	Investigating properties of sound	Interaction of sound waves	Doppler effect	Observing the properties of a wave	Investigating Newton's laws of motion	Friction	Rotational inertia	Collisions	The lever	The pulley
Analysis, Inquiry, and Design /Scientific Inquiry	The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing creative process.	1SIC1.1	Elaborate on basic scientific and personal explanations of natural phenomena, and develop extended visual models and mathematical formulations to represent their thinking.																		
		1SIC1.2	Hone ideas through reasoning, library research, and discussion with others, including experts.																		
		1SIC1.3	Work toward reconciling competing explanations; clarifying points of agreement and disagreement.																		
		1SIC1.4	Coordinate explanations at different levels of scale, points of focus, and degrees of complexity and specificity and recognize the need for such alternative representations of the natural world.																		
	Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	1SIC2.1	Devise ways of making observations to test proposed explanations.																		
		1SIC2.2	Refine their research ideas through library investigations, including electronic information retrieval and reviews of the literature, and through peer feedback obtained from review and discussion.																		
		1SIC2.3	Develop and present proposals including formal hypothesis to test their explanations, i.e., they predict what should be observed under specified conditions if the explanation is true.																		
		1SIC2.4	Carry out their research plan for testing explanations, including selecting and developing techniques, acquiring and building apparatus and recording observations as necessary.																		
Science and the Physical Setting	Energy exists in many forms, and when these forms change energy is conserved.	4PSI4.4	Observe and describe the properties of sound, light, magnetism, and electricity.																		
		4PSI4.5	Describe situations that support the principle of conservation of energy.																		
	Energy and matter interact through forces that result in changes in motion.	4PSI5.1	Describe different patterns of motion of objects.																		
		4PSI5.2	Observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects.																		