

Virginia State Science Standards Correlation

Standard Topic		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		
Concept(s)		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	Electrolytes	Resistors in series and parallel
Physical Science	PS.1 The student will plan and conduct investigations.																				
	PS. 6 The student will investigate and understand states and forms of energy and how energy is transferred and transformed.																				
	PS. 7 The student will investigate and understand temperature scales, heat, and heat transfer.																				
	PS. 9 The student will investigate and understand the nature and technological applications of light.																				
	PS. 11 The student will investigate and understand basic principles of electricity and magnetism.																				
Physics	PH. 2 The student will investigate and understand how to analyze and interpret data.																				
	PH. 3 The student will investigate and understand how to demonstrate scientific reasoning and logic.																				
	PH. 10 The student will investigate and understand that different frequencies and wavelengths in the electromagnetic spectrum are phenomena ranging from radio waves through visible light to gamma radiation.																				
	PH. 11 The student will investigate and understand, in describing optical systems, how light behaves in the fundamental processes of reflection, refraction, and image formation.																				
	PH. 13 The student will investigate and understand how to diagram and construct basic electrical circuits and explain the function of various circuit components.																				

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Standard Topic		Inquiry Investigations™ Physical Science Series II - 1013061																	
		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
Physical Science	PS.1 The student will plan and conduct investigations.																		
	PS. 8 The student will investigate and understand characteristics of sound and technological applications of sound waves.																		
	PS. 10 The student will investigate and understand scientific principles and technological applications of work, force, and motion.																		
	PS. 11 The student will investigate and understand basic principles of electricity and magnetism.																		
Physics	PH. 2 The student will investigate and understand how to analyze and interpret data.																		
	PH. 3 The student will investigate and understand how to demonstrate scientific reasoning and logic.																		
	PH. 5 The student will investigate and understand the interrelationships among mass, distance, force, and time through mathematical and experimental processes.																		
	PH. 6 The student will investigate and understand that quantities including mass, energy, momentum, and charge are conserved.																		