Ohio State Science Standards Correlation

Inquiry Investigations™ Physical Science Series I - 1013060

Academic Content Standard	Benchmark	Overview	UNIT 1 THE WORLD OF PHYSICAL SCIENCE: Exploring the Scientific Method LAB 1013080 — Effect of temperature on the emergence of sponge creatures	UNIT 1 THE WORLD OF PHYSICAL SCIENCE: Exploring the Scientific Method LAB 1013080 — Effect of pH on the emergence of sponge creatures	UNIT 1 THE WORLD OF PHYSICAL SCIENCE: Exploring the Science of Measurement LAB 1013082 — The metric system (SI)	Measuring density	Measuring temperature	Measuring pH	Measuring low concentrations of water pollutants	UNIT 2 HEAT AND ENERGY: Exploring Heat and Energy LAB 1013084 — Heat of fusion of ice	Thermal conductivity of different metals	Thermal expansion	Demonstrating radiant heat and energy	Calibration of a thermometer	UNIT 3 LIGHT AND OPTICS: Exploring Light and Optics LAB 1013086 — Visible light spectrum	What is color?	Reflection of light	Polarized light	The laser	UNIT 4 ELECTRICITY: Exploring Electricity LAB 1013088 — The electroscope	Electrolytes	Resistors in series and parallel
Physical Sciences	C	Describe renewable and nonrenewable sources of energy (e.g., solar, wind, fossil fuels, biomass, hydroelectricity, geothermal, and nuclear energy) and management of these sources.								■	■	■	■	■						■	■	■
	D	Describe that energy takes many forms, some forms represent kinetic energy and some forms represent potential energy; and during energy transformations the total amount of energy remains constant.								■	■	■	■	■						■	■	■
Science and Technology	A	Give examples of how technological advances, influenced by scientific knowledge, affect the quality of life.	■	■																		
	B	Design a solution or product taking into account needs and constraints (e.g., cost, time, trade-offs, properties of materials, safety, and aesthetics).	■	■																		
Scientific Inquiry	A	Explain that there are different sets of procedures for guiding scientific investigations and procedures are determined by the nature of the investigation, safety considerations, and appropriate tools.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	B	Analyze and interpret data from scientific investigations using appropriate mathematical skills in order to draw valid conclusions.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Scientific Ways of Knowing	A	Use skills of science inquiry processes (e.g., hypothesis, record keeping, description, and explanation).	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	B	Explain the importance of reproducibility and reduction of the bias in scientific methods.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	C	Give examples of how thinking scientifically is helpful in everyday life.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Ohio State Science Standards Correlation

Inquiry Investigations™ Physical Science Series II - 1013061

Academic Content Standard	Benchmark	Overview	UNIT 1 GRAVITY: Exploring Gravity LAB 1013090				UNIT 2 MAGNETISM: Exploring Magnetism LAB 1013092				UNIT 3 PROPERTIES OF SOUND: Exploring Sound Waves LAB 1013094				UNIT 4 FORCES, MOTION, AND SIMPLE MACHINES: 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	The inclined plane
Physical Sciences	B	In simple cases, describe the motion of objects and conceptually describe the effects of forces on an object.					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	C	Describe renewable and nonrenewable sources of energy (e.g., solar, wind, fossil fuels, biomass, hydroelectricity, geothermal, and nuclear energy) and management of these sources.									■	■	■	■							
	D	Describe that energy takes many forms, some forms represent kinetic energy and some forms represent potential energy; and during energy transformations the total amount of energy remains constant.													■	■	■	■	■	■	■
Scientific Inquiry	A	Explain that there are different sets of procedures for guiding scientific investigations and procedures are determined by the nature of the investigation, safety considerations, and appropriate tools.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	B	Analyze and interpret data from scientific investigations using appropriate mathematical skills in order to draw valid conclusions.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Scientific Ways of Knowing	A	Use skills of science inquiry processes (e.g., hypothesis, record keeping, description, and explanation).	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	B	Explain the importance of reproducibility and reduction of the bias in scientific methods.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	C	Give examples of how thinking scientifically is helpful in everyday life.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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