

Content Outline and Pacing Guide

Course: 8th grade Physical Science

Quarter	SOL #	Topic	Suggested Timeframe
1	PS 1 a-n	I Scientific Investigation <ul style="list-style-type: none"> • Lab Safety and equipment • Experimental Design, Research and Experimentation • Measurement and the Metric System • Graphing and data analysis • Making conclusions and communicating results 	3 weeks and integrated
	PS 2 a-f; PS 5a 6.5 a-b 6.6 a	II Properties of Matter <ul style="list-style-type: none"> • Particle Theory of Matter • States of matter • Elements, compounds, mixtures and solutions • Physical and Chemical properties 	3 weeks
	PS 3 a, b	III Atomic Structure <ul style="list-style-type: none"> • History of Atomic Theory/Scientists • Introduction to the Atom ** ** Benchmark assessment questions will appear on Qt. 2 assessment	2 weeks
	Total		
2	PS 3b PS 4 a, b 6.4 a-c	IV. Atomic Structure and the Periodic Table <ul style="list-style-type: none"> • Atomic Structure • Organization and use of the Periodic table • Classification of elements 	3 weeks
	PS 4 c 6.4 d-g PS 5c; PS 2 b, f	V. Chemical Bonding, Reactions, and Compounds <ul style="list-style-type: none"> • Acids, Bases and Salts • Simple compounds (formulas and bonding) • Organic and inorganic 	6 weeks
	PS 1	<ul style="list-style-type: none"> • Scientific Investigation Application 	Integrated
	Total		
3	PS 10 a-d	VI. Work, Force, and Motion <ul style="list-style-type: none"> • Speed, velocity and acceleration • Newton's Laws of Motion • Work, force, Mechanical advantage, efficiency and power • Simple machines, compound machines, powered vehicles and rockets 	6 weeks

	PS 6 a-c PS 7 a-d 6.2 a, e PS 5b	VII. Energy <ul style="list-style-type: none"> • Potential and Kinetic Energy • Forms of Energy and Transformations • Temperature and Heat • Heat transfer and applications • Nuclear reactions 	3 weeks
	PS 1	• Scientific Investigations Applications	Integrated
	Total		9 wks.
4	PS 11 a-c	VIII. Electricity and Magnetism <ul style="list-style-type: none"> • Static and Current electricity • Circuits • Electromagnetism • Motors and generators 	3 weeks
	PS 8 a-d	IX. Sound <ul style="list-style-type: none"> • Characteristics of sound waves • Technological application of sound 	2 weeks
	PS 9 a-c	X. Light <ul style="list-style-type: none"> • Wave behavior of light • Lenses and Mirrors • Electromagnetic spectrum 	2 weeks
	PS 1	• Scientific Investigation applications	Integrated
	Enrichment	• Physical Science topics	After SOL
	Total		9 wks.