



**MONROVIA UNIFIED SCHOOL DISTRICT**  
**2009-2010 INSTRUCTIONAL PACING GUIDE**  
 "World Class Schools for World Class Students"

## Physical Science 8<sup>th</sup> Grade

\*M.S. Sci. & Soc.Sci. – 6 wk (benchmark @ 6 wk)

<b>Department</b>	Science
<b>Course Name</b>	Science 8 - Physical Science
<b>Grade Level</b>	8
<b>Instructional Reference Material (s)</b>	Holt California Physical Science ©2007

Grading/ Benchmark Term	Standard	Topic & Resource Reference	Major Activities (tests, projects, tests, reports, performances)	Common Vocabulary (Content & Academic)	Differentiation Intervention (Skills level, SADIE)	Other Information
<b>TERM #1 (7 wks)</b>	<b>9a, b, c 9d, e, f, g  5a, c, d, 7c, 8a, b</b>	Unit 1 – Introduction to Physical Science Chapter 1 – Nature of Physical Science Chapter 2 – Data in Science Unit 2 – Structure of Matter Chapter 3 – Properties of Matter	EP-01 – Water Content Scientific Method Practice	<b>Chapter 1:</b> science; scientific method; observation; hypothesis; data; evaluate; conduct; variable; parameter; accuracy  <b>Chapter 2:</b> mass, volume; area; density; temperature; theory; law; independent variable; dependent variable; constant; interpret; construct; principle; appropriate  <b>Chapter 3:</b> matter; meniscus; physical property; weight; physical change; chemical properties; chemical change; interact; reaction; liberate; physical; process; mas		[Benchmark # 1 after Chapter 3]

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<b>TERM #2</b> (6 wks)	<b>3d, e, 5d, 7c</b> <b>3b, 5a, 7c</b>  <b>3a, 7b</b>	Chapter 4 – States of Matter Chapter 5 – Elements, Compounds, & Mixtures  Unit 3 – The Atom Chapter 6 – Introduction to Atoms	EP-02 - Stories of Changes in Matter Atomic Models	<b>Chapter 4:</b> states of matter; solid, liquid; gas; plasma; change of state; melting; evaporation; boiling; condensation; sublimation  <b>Chapter 5:</b> element; pure substance; metals; nonmetals; metalloids (semi-metals); compound; mixture; solution; solute; solvent; concentration; solubility; constituent; chemical  <b>Chapter 6:</b> atom; electrons; nucleus; electron clouds; protons; atomic mass unit (amu); neutrons; atomic number; isotopes; mass number; atomic mass; structure; specific		[Benchmark # 2 after Chapter 6]
<b>TERM #3</b> (6 wks)	<b>3f, 7a, b, c</b> <b>3a, b, c, f, 5a</b> <b>3b, f, 5a, b, c</b>	Chapter 7 – The Periodic Table Unit 4 – Interactions of Matter Chapter 8 – Chemical Bonding Chapter 9 – Chemical Reactions	EP-03 – Food Additives	<b>Chapter 7:</b> periodic; periodic table; periodic law; periods; groups (families); alkali metals; alkaline earth metals; halogens; noble gases; identify; region; correspond; zigzag (stair step) line  <b>Chapter 8:</b> chemical bonding; chemical bond; valence electrons; ionic bonds; ions; crystal lattice; covalent bond; molecule; metallic bond; structure; identify; interact; constituent; chemical  <b>Chapter 9:</b> chemical reaction; precipitate; exothermic reaction; endothermic reaction; law of conservation of energy; chemical formula; chemical equation; reactant; product; subscript; superscript; coefficient; law of conservation of matter; liberate; reaction		[Benchmark #3 after Chapter 9]

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<b>TERM #4</b> (6 wks)	<b>3b, c, 5e, 7c</b> <b>3c, 6a, b, c</b>  <b>1a, b, c, d, e, f, 2a</b> <b>2a, b, c, d, e, f</b>	Chapter 10 – Chemical Compounds Chapter 11 – Chemistry of Living Things Unit 5 – Motion and Forces Chapter 12 – Matter in Motion Chapter 13 – Forces and Motion	EP-04 – Egg Drop Speed a la Carte Science Fair	<b>Chapter 10:</b> chemical bond; ionic compound; covalent compound; acid; indicator; base; neutralization reaction; pH; salt; neutral; constituent; structure  <b>Chapter 11:</b> organic compound; carbohydrates; lipids; proteins; nucleic acid; role; consists  <b>Chapter 12:</b> motion; average speed; velocity; acceleration; force; Newton; net force; friction; specify; vary; interpret  <b>Chapter 13:</b> gravity; weight; terminal velocity; free-fall; projectile motion; inertia; identify; weight; tension; achieve		[Benchmark #4 after Chapter 13]
<b>TERM #5</b> (6 wks)	<b>8a, b, c, d</b>  <b>2g, 4b, c, d, e</b>	Chapter 14 – Forces in Fluids Unit 6 – Studying the Universe Chapter 16 – Our Solar System Begin CST Review after Benchmark	EP-05 – Newton Scooters Solar System Booklets	<b>Chapter 14:</b> fluid; pressure; pascal; atmospheric pressure; buoyant force; Archimedes’ principle; density; displace; predict  <b>Chapter 16:</b> solar nebula; astronomical unit; terrestrial planet; prograde motion; retrograde motion; gas giant; satellite; eclipse; phase; comet; asteroid; meteor; meteoroid; meteorite; ellipse; rotation; revolution		[Benchmark # 5 after Chapter 16]
<b>TERM #6</b> (6 wks)	<b>2g, 4a, b, c, d</b>  <u>CST</u>	Chapter 15 – Stars, Galaxies, & the Universe Review for CST  <u>CST</u>  Space Travel and Natural Resources	<u>CST</u>  EP-06 – Mission to Mars Building Bridges	<b>Chapter 15:</b> spectrum; apparent magnitude; absolute magnitude; light year; parallax; main sequence; H-R diagram; supernova; galaxy; nebula; big bang theory; role; source; maintain  <u>CST</u>	<u>CST</u>	[Benchmark #6 after CST]

**Addendum to Major Activities:** Assign at least one persuasive essay per year on a current scientific event; timing at teacher's discretion

**Differentiation and Interventions:**

**Vocabulary:** vocabulary squares which include pictures, definition, and a sentence appropriately using the word, antonyms, and synonyms; level appropriate worksheets; key vocabulary terms are highlighted in textbook; extensive textbook supports; Spanish-English glossary

**Reading and Comprehension:** audio books; Spanish-English glossary; Spanish language texts; level-appropriate labs and activities and worksheets; key vocabulary terms are highlighted in textbook

**Math Skills:** practice worksheets from publisher which are scaffolded; review of basic measurements, conversions, and algebraic manipulation; graphic whiteboards

**Testing:** Level appropriate versions of tests and quizzes; glossary available when needed; extra time for testing; oral testing; testing with RSP teacher, as provided for in IEP