

## 8<sup>th</sup> Grade Physical Science---Curriculum at a Glance

The following are the units for 8<sup>th</sup> grade Physical Science with suggested pacing and experiences that all 8<sup>th</sup> grade students should receive. References to the labs in the CPO lab book are in Brackets. The CPO labs are **not required** but are referenced for your convenience. Other suggested activities are included to aid teachers in their planning. The order of these units is up to your discretion.

Unit Name	Safety	Scientific Investigations	Properties of Matter	Classification of Matter
Standards Addressed	n/a	1	2.1, 2.2, 2.3	2.5, 2.6
CPO Chapters	Lab Manuel (pg 86-91)	1, 2	11, 12	13, 14, 15
Suggested Topics	Safety Contract Introduction to equipment	Ramp and Roll Pre-Assessment (first month) Observations/Inferences Metric Measurement Variables Graphing Investigations Ramp and Roll Post-Assessment (After Christmas)	What is matter? Phases of Matter Phase Changes Kinetic Theory Physical/Chemical Properties (Solubility magnetisim, specific heat, boiling point, flamability Density Law of Conservation of mass Separating Mixtures District Properties of Matter Assessment	What is matter? Atomic Structure Substances (elements and compounds) and Mixtures Periodic Table
Approximate Duration	2-3 Days	4 weeks	8 weeks	4 weeks
Possible Activities	Safety Map Science Safety Skits Safety Quiz	Water to Wine Metric Olympics Uranium Dioxide Simpsons Worksheet Variable Scenarios	Sink or Float Intro to properties Kinetic Molecular Dance Party Phase Change Diagram of water Oobleck Clay Boats Separations Lab Lava Lamps Liquid Nitrogen	Building Atoms Element Research Alien Periodic Table

Unit Name	Forces and Motion	Energy	Electricity	Light
Standards Addressed	2.3, 2.7	2.8	2.9	2.10
CPO Chapters	3, 4, 5, 7	6	8	10
Suggested Topics	Speed/Velocity Motion Graphs Forces in system (Newton's Laws) Types of forces Mass vs weight District Assessment Physics	Forms of Energy Energy Transformation Law of Conservation of Energy Kinetic/Potential Energy	Series and parallel circuits Electron Flow	ROYGBIV Relationships between wavelength and energy
Approximate Duration	8 weeks	4 weeks	1 week	1 week
Possible Activities	CPO Labs Rocket Racers Model Rockets Mousetrap Cars	Roller Coasters Ball Bounce Christmas Lights Pendulums Comeback Can Rube Goldberg	CPO Circuits Lab Christmas Lights PhET Simulation	

Additional Planning: The pacing leaves approximately **20 to 30** days for you to use for flexibility in planning and CSAP review.