

Cocalico School District
Year-at-a-Glance - Curriculum Overview

Department: Science

Course: Physical Science

Grade Level: 8

Big Ideas

- To practice and apply safely the basics of scientific inquiry
- To study the properties and behavior of matter and the energy associated with changes in matter
- To study matter and its motion and behavior in space and time

Units of Study	% of Course Time	Textbooks & Supplemental Materials	Assessments	Standards Addressed
<ul style="list-style-type: none"> • Nature of Science: Scientific investigations, Scientific Method, Metric Measurement, Laboratory Tools and Safety 	10%	<ul style="list-style-type: none"> • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit Test and Quizzes 	<ul style="list-style-type: none"> • 3.3.10.A8 • 3.2.7.C • 3.3.7.A • 3.7.7.B • 3.8.7.A-B • 3.1.7.B-E • 3.2.7.B, D • 4.1.7.B • 4.3.7.A • 4.7.7.C • 4.8.7.C
<ul style="list-style-type: none"> • Matter and Its Properties: Mass, Volume, Density, Chemical versus Physical Properties and Changes 	20%	<ul style="list-style-type: none"> • Textbook STCMS: “Matter and Its Interactions”, Haley, Carolina, 2017 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit Test and Quizzes 	<ul style="list-style-type: none"> • 3.2.6.A1, A3 • 3.2.6.B3 • 3.2.7.A1-A3 • 3.2.7.B3 • 3.2.7.B6 • 3.2.8.A1-A4 • 3.2.8.B6 • 3.2.10.A2, A3 • 3.2.10.B5
<ul style="list-style-type: none"> • Energy: Forms, Kinetic and Potential Energy Calculations, Heat Transfer, Electromagnetic Spectrum 	10%	<ul style="list-style-type: none"> • Textbook STCMS: “Energy, Forces, and Motion”, Haley, Carolina, 2017 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit Test and Quizzes 	<ul style="list-style-type: none"> • 3.2.6.B2-B3 • 3.2.7.A3 • 3.2.7.B2-B3 • 3.2.7.B5-B6 • 3.2.8.B2-B4 • 3.2.8.A3 • 3.2.10.B3, B5 • 3.2.6.B6
<ul style="list-style-type: none"> • Physics of Motion and Forces: Gravity, Friction, Pressure, Newton’s Laws, Inertia, Momentum 	30%	<ul style="list-style-type: none"> • Textbook STCMS: “Electricity, Waves, and Information Transfer”, Haley, Carolina, 2015 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit Test and Quizzes 	<ul style="list-style-type: none"> • 3.2.4.A1 • 3.2.8.B1 • 3.2.10.B1 • 3.2.7.B1-B2, B6 • 3.2.6.B1-B2 • 3.2.8.A1 • 3.2.10.B2
<ul style="list-style-type: none"> • Chemistry: Atoms and the Periodic Table, Chemical Bonding, Chemical Reactions 	30%	<ul style="list-style-type: none"> • Textbook STCMS: “Matter and Its Interactions”, Haley, Carolina, 2017 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit Test and Quizzes 	<ul style="list-style-type: none"> • 3.2.7.A1-A2 • 3.2.8.A2 • 3.2.10.A1-A2, A4 • 3.2.8.A3-A4 • 3.2.6.A3



Eagle P.A.C.T. Course Connections:

Physical science encourages students to solve problems, collaborate, communicate and think critically through classroom activities, laboratory experiments and creative projects.