

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

Department: CMS Science

Course: Science

Grade Level: 7

Big Ideas

- Students will be able to apply scientific inquiry to answer questions through scientific investigations.
- Students will understand that all organisms are made of cells and can be characterized by common aspects of their structure and function.
- Students will understand that heredity refers to specific mechanisms by which characteristics or traits are passed from one generation to the next via genes, and explains why offspring resemble, but are not identical to, their parents.
- Students will understand how natural selection determines the changes in the body of an organism over time.
- Students will understand the patterns of interactions between living and nonliving things in an ecosystem.

Units of Study	% of Course Time	Textbooks & Supplemental Materials	Assessments	Standards Addressed
<ul style="list-style-type: none"> • Scientific Inquiry/Nature of Science 	12%	<ul style="list-style-type: none"> • Laboratory investigations • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit test 	<ul style="list-style-type: none"> • 3.1.7.A • 3.1.7.B • 3.1.7.D • 3.1.7.E • 3.2.7.A • 3.2.7.B • 3.2.7.C • 3.2.7.D
<ul style="list-style-type: none"> • Cell Structure and Function: Microscope Skills, Processes, Chemistry, Energy, Organization 	40%	<ul style="list-style-type: none"> • Textbook: “STCMS Structure and Function”, H. Golba, Carolina, 2018 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit test • Cell Project 	<ul style="list-style-type: none"> • 3.3.7.A • 3.3.7.B • 3.7.7.B • 3.4.7.B
<ul style="list-style-type: none"> • Genetics: Reproduction, Inheritance, Mutations, Technology 	30%	<ul style="list-style-type: none"> • Textbook: “STCMS Genes and Molecular Machines”, Risko & Golba, Carolina, 2017 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit test • Genetics Project 	<ul style="list-style-type: none"> • 3.3.7.C • 3.3.7.D • 3.6.7.A
<ul style="list-style-type: none"> • Classification/Natural Selection: Cladograms, Dichotomous Keys, Kingdoms, Embryology 	8%	<ul style="list-style-type: none"> • Textbook: “STCMS Genes and Molecular Machines”, Risko & Golba, Carolina, 2017 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit test 	<ul style="list-style-type: none"> • 3.3.7.A • 3.3.7.C • 3.3.7.D
<ul style="list-style-type: none"> • Ecology: Food Chains, Food Webs, Energy Pyramids, Symbiosis, Cycles of Matter 	10%	<ul style="list-style-type: none"> • Textbook: “STCMS Ecosystems and Their Interactions”, C. Risko, Carolina, 2018 • Teacher Created Notes and Activities 	<ul style="list-style-type: none"> • Laboratory Experiments • Unit test • Cycles Project 	<ul style="list-style-type: none"> • 4.1.7.A • 4.6.7.A



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

Students are encouraged to use scientific inquiry throughout life science investigations. Groups work collaboratively using critical thinking skills to identify and investigate problems, interpret data, and create and communicate conclusions associated with the survival of life on Earth.