

## Crest Memorial School Curriculum and Pacing Guide

All activities correspond with marking period essential questions. Activity goes with question as do the the corresponding standards, modifications, accommodations, assessments and 21st century learning skills.

Grade: 8

Subject: Science

Adoption Date: 04/01/14

Revision Date: 11/01/18

	MP1	MP2	MP3	MP4
Scope and Sequence	<p>What are Newton's Laws of Motion? (2 weeks)</p> <p>Why do we have tides? (1 week)</p> <p>Why do some things sink and others float? (4 weeks)</p> <p>What is the Law of Conservation of Energy? (3 weeks)</p>	<p>What's inside a cell? (3 weeks)</p> <p>How do cells reproduce? (3 weeks)</p> <p>How are traits passed down from parent to child? (3 weeks)</p>	<p>What are the properties of waves? (5 weeks)</p> <p>How do waves interact? (3 weeks)</p>	<p>What constitutes useful scientific evidence? (2 weeks)</p> <p>How can a conclusion be best justified and explained to others? (2 weeks)</p>
Instructional Materials	Teacher created textbook BrainPop	Teacher created textbook BrainPop	Teacher created textbook BrainPop	Teacher created textbook BrainPop
Activities	<p>Demonstrate Newton's laws of motion</p> <p>Create a tide chart</p> <p>Design and test a boat</p> <p>Measure the heat capacity of a metal</p>	<p>Make and observe a slide of plant cells</p> <p>Identify the stages of the cell cycle</p> <p>Draw and interpret Punnett squares</p>	<p>Identify and measure the characteristics of waves</p> <p>Measure the angle of reflection</p> <p>Combine sound waves to create interference</p>	<p>Collect and identify evidence</p> <p>Analyze forensic evidence</p> <p>Write a conclusion based on evidence</p>

Standards	<p>PS2.A: Forces and Motion  PS2.B: Types of Interactions  PS3.A: Definitions of Energy  PS3.B: Conservation of Energy and Energy Transfer  PS3.C: Relationship Between Energy and Forces  ETS1.A: Defining and Delimiting an Engineering Problem  ETS1.B: Developing Possible Solutions  ETS1.C: Optimizing the Design Solution</p>	<p>LS1.A: Structure and Function  LS1.B: Growth and Development of Organisms  LS3.A: Inheritance of Traits  LS3.B: Variation of Traits  LS4.A: Evidence of Common Ancestry and Diversity  LS4.B: Natural Selection  LS4.C: Adaptation  LS4.D: Biodiversity and Humans  ETS1.A: Defining and Delimiting an Engineering Problem  ETS1.B: Developing Possible Solutions  ETS1.C: Optimizing the Design Solution</p>	<p>PS4.A: Wave Properties  PS4.B: Electromagnetic Radiation  PS4.C: Information Technologies and Instrumentation  ETS1.A: Defining and Delimiting an Engineering Problem  ETS1.B: Developing Possible Solutions  ETS1.C: Optimizing the Design Solution</p>	<p>ETS1.A: Defining and Delimiting an Engineering Problem  ETS1.B: Developing Possible Solutions  ETS1.C: Optimizing the Design Solution</p>
Accommodations and Modifications	<p>English language learners: Work with English speaking partner / group, use translation program for vocab as needed</p> <p>At Risk of School Failure: Work in cooperative group, adjust time for completion</p> <p>Gifted and Talented Students: Give opportunities to teach other students, produce work beyond minimum requirements</p> <p>Students with 504 plans: Provide notes and assignments on computer</p>	<p>English language learners: Work with English speaking partner / group, use translation program for vocab as needed</p> <p>At Risk of School Failure: Work in cooperative group, adjust time for completion</p> <p>Gifted and Talented Students: Give opportunities to teach other students, produce work beyond minimum requirements</p> <p>Students with 504 plans: Provide notes and assignments on computer</p>	<p>English language learners: Work with English speaking partner / group, use translation program for vocab as needed</p> <p>At Risk of School Failure: Work in cooperative group, adjust time for completion</p> <p>Gifted and Talented Students: Give opportunities to teach other students, produce work beyond minimum requirements</p> <p>Students with 504 plans: Provide notes and assignments on computer</p>	<p>English language learners: Work with English speaking partner / group, use translation program for vocab as needed</p> <p>At Risk of School Failure: Work in cooperative group, adjust time for completion</p> <p>Gifted and Talented Students: Give opportunities to teach other students, produce work beyond minimum requirements</p> <p>Students with 504 plans: Provide notes and assignments on computer</p>
Interdisciplinary	Math	Math	Math	Math

Connections	<p>EE: Expressions and Equations F: Functions SP: Statistics and Probability</p> <p>ELA RI: Reading Informational Text RST: Reading in Science and Technical Subjects WHST: Writing in History, Science, and Technical Subjects</p>	<p>EE: Expressions and Equations F: Functions SP: Statistics and Probability</p> <p>ELA RI: Reading Informational Text RST: Reading in Science and Technical Subjects WHST: Writing in History, Science, and Technical Subjects</p>	<p>EE: Expressions and Equations F: Functions SP: Statistics and Probability</p> <p>ELA RI: Reading Informational Text RST: Reading in Science and Technical Subjects WHST: Writing in History, Science, and Technical Subjects</p>	<p>EE: Expressions and Equations F: Functions SP: Statistics and Probability</p> <p>ELA RI: Reading Informational Text RST: Reading in Science and Technical Subjects WHST: Writing in History, Science, and Technical Subjects</p>
Assessments	<p>Tests Lab Reports Homework Class Participation</p>	<p>Tests Lab Reports Homework Class Participation Science Fair Project</p>	<p>Tests Lab Reports Homework Class Participation</p>	<p>Lab Reports Homework Multimedia Presentation Class Participation</p>
21st Century Themes and Skills	<p>Identify the factors affecting the period of a pendulum (CRP8 Critical Thinking and Problem Solving)</p> <p>Measure the buoyancy of boats (CRP8 Critical Thinking and Problem Solving)</p>	<p>Draw and interpret Punnet squares (CRP8 Critical Thinking and Problem Solving)</p> <p>Discuss examples of selective breeding and genetic engineering (CRP9 Accountability, Productivity, and Ethics)</p>	<p>Measure the focal length of a lens (CRP8 Critical Thinking and Problem Solving)</p> <p>Make &amp; measure waves (CRP8 Critical Thinking and Problem Solving)</p>	<p>Use forensics to solve a crime (CRP8 Critical Thinking &amp; Problem Solving)</p>