The mission of Hermon High School is to prepare students for personal success in college, work, and community.

Conceptual Physics

Instructor:
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This half-year course is designed to introduce the student to the content and applications of physics, to increase the student's confidence in science, and to prepare the student for further study in this field. It will address the Learning Results content standards in the area of physics, including the study of dynamics, kinematics, and wave phenomena and electromagnetism. Topics may include motion, forces, momentum, energy, waves, sound and light, and electricity and magnetism. Laboratory activities will be a major part of this course. Juniors who successfully complete this course will be prepared for more intensive study of physics in their senior year

Graduation Standards (the number of the standard is referenced in the performance indicators listed in each unit):

PHYSICAL SCIENCES STANDARD:
3: ENERGY, WAVES, AND ELECTROMAGNETIC RADIATION
2: FORCES AND MOTION

Unit 1	**Introduction to Physics: Part A Motion**
Summary	Differentiate between velocity and acceleration Utilize equations to predict motion Falling body as a real life example
Performance Indicators Assessed in Unit	2A. Use motion and kinematic equations in one dimension to calculate acceleration, velocity, time, and displacement.

Unit 2	**Introduction to Physics: Part B Force**
Summary	Define interia Understand the relationship between Newton's law and Motion Differentiate between mass and weight
Performance Indicators Assessed in Unit	2C. Use Newton's Laws of Motion to precisely calculate an object's change in motion when a net force is applied.

Unit 3	**Part A Work and Energy**
Summary	Define common types of energy Understand the relationship between conservation of energy and Motion Use conservation of energy concept to explain real world phenomenon

Performance Indicators Assessed in Unit	3A. Understand that all energy can be considered to be either kinetic or potential and can involve both work and power.
Unit 4	**Part B Simple Machines and Momentum**
Summary	Define simple machines Understand the simple machines impact on life Use the relation between momentum and impulse to explain real world phenomenon
Performance Indicators Assessed in Unit	3B. Demonstrate knowledge of conservation of momentum and impulse.
Unit 5	**Electricity**
Summary	Define electricity Relate motion, force and energy to electricity
Performance Indicators Assessed in Unit	3D. Demonstrate series and parallel resistors and accurately calculate voltage, resistance, and current in a circuit.
Unit 6	**Waves and Sound**
Summary	Define waves Define wave interactions Relate wave characteristics to sound and human's perception of sound
Performance Indicators Assessed in Unit	3E. Demonstrate properties of waves and their interactions.

Summative Assessments Retake

- Students have the opportunity to retake summative assessments.
- The student must submit a retake form to the teacher within five (5) school days of the date that the summtive assessment score is reported to the student.
- The highest score a student can receive on a retake or late assessment is a 75.
- The score achieved on a retake will replace the current score (even if the score is lower).
- If a student is making up a test from an absence, that assessment will be graded up to 100.

Grading of Formative Assessments

- Formative assessments will count as 20% of the grade.
- Formative assessments may be scored on either a 0-100 scale or a 0-4 scale.
- The 0-4 scale will be represented in Power School as 4=100, 3=87, 2=77, and 1=67.
- The method of scoring of formative assessments will be determined by assignment.