

HIGH SCHOOL PHYSICS: For college prep and honors physics students only. No AP level students in HS Physics

JANUARY: scalars, vectors, kinematics, projectiles, mass, density, Newton's laws, forces (mechanical, gravitational, frictional, centripetal), work, energy (potential, kinetic), and its conservation, power.

FEBRUARY: impulse, linear momentum and its conservation, elastic and inelastic collisions, angular measure and motion, the concept of angular momentum and its conservation, equilibrium of forces and torques, simple machines, plus Jan topics

MARCH: temperature and heat, thermal equilibrium, linear expansion and contraction, specific heat, calorimetry, modes of energy transfer, thermodynamic laws, and ideal gas laws, simple harmonic motion, wave propagation, standing waves, sound, plus Jan and Feb topics.

APRIL: electrical charges, fields and force, coulombs law, voltage sources and resistances, series/parallel networks, electricity and magnetism, light, index of refraction, color, optics, lenses, mirrors, interference phenomena, plus Jan, Feb, Mar topics.