

Physics – Grade 12
District 2853

Month	Content	Performance Standards Addressed	Skills for Student Achievement	Assessment
September	· Motion in One Dimension	Physical Science D-2	· Displacement, Velocity, Acceleration · Gravitational Acceleration	· Tests · Labs · Written Exercises · Practicums
September and October	· Motion in Two Dimensions	Physical Science D-2 Physical Science C-9	· Vectors and vector operations · Projectile Motion	· Tests · Labs · Written Exercises · Practicums
October	· Forces and Laws of Motions	Physical Science D-1,2 Physical Science C-9	· Changes in motion · Describe Newton's 3 laws of motion · Describe friction and problems involving friction	· Tests · Labs · Written Exercises · Practicums
November	· Work, Energy, Power · Momentum and Impulse	Physical Science C-1,2,9 Physical Science D-2	· Describe work, kinetic and potential energy and power · Laws of conservation of energy · Describe momentum · Law of conservation of momentum · Elastic and inelastic collisions ·	· Tests · Labs · Written Exercises · Practicums
December	· Simple Machines · Rotational Motion		· Describe types and uses of simple machines · Mechanical Advantages and efficiencies · Describe circular motion, moments of inertia, torque	· Tests · Labs · Written Exercises · Practicums
December to January	· Thermodynamics		· Describe relationship between heat and work · Describe loss or gain of heat in thermal processes · Describe the efficiencies of heat engines · Describe entropy · Describe Laws of Thermodynamics	· Tests · Labs · Written Exercises · Practicums
January	· Waves and Simple Harmonic Motion		· Describe simple harmonic motion · Describe types and parts of waves	· Tests · Labs · Written Exercises · Practicums
February	· Sound		· Describe sound, intensity, frequency and resonance · Discuss harmonics, Laws of Strings, Doppler effect	· Tests · Labs · Written Exercises · Practicums

March	· Light	Physical Science C-8	· Describe light characteristics, reflection, mirrors, color and polarization · Describe refraction, diffraction and interference · Describe uses of mirrors, lenses, and lasers	· Tests · Labs · Written Exercises · Practicums
April	· Static Electricity, electric forces and fields	Physical Science C-3	· Identify types of electric charges, electric fields, and electric forces	· Tests · Labs · Written Exercises · Practicums
April and May	· Electric Energy, circuits, types of current	Physical Science C-3,4	· Identify electric potential energy, potential difference, capacitance · Identify current, and types of circuits · Calculate resistance, amperage, voltage	· Tests · Labs · Written Exercises · Practicums
May	· Magnets and magnetic fields · Electromagnetism	Physical Science C-4	· Identify and explain types of magnetism · Identify relationship between electricity and magnetism	· Tests · Labs · Written Exercises · Practicums