

Unit 1 – Introduction to Physics

- 1A: What is Physics?
- 1B: Scientific Notation & Unit Conversions
- 1C: Significant Figures
- 1D: Vectors & Scalars
- 1E: Graphical Resolution of Vectors
- 1F: Mathematical Resolution of Vectors
Closer Look: Advanced 2D Vector Analysis
- 1G: Graphing Relationships

Unit 2 – Describing Motion

- 2A: Distance & Displacement
- 2B: Speed & Velocity
- 2C: Acceleration & Kinematic Equations
Closer Look: Kinematic Equations
- 2D: Graphing Motion
Closer Look: Advanced Graphing Motion
- 2E: Freefall
- 2F: Relative Velocity
- 2G: Horizontally Launched Projectiles
Closer Look: Advanced Projectile Motion

Unit 3 – Forces

- 3A: Newton's Laws Overview
- 3B: Free Body Diagrams
Closer Look: Free Body Diagrams
- 3C: Newton's 2nd Law Part 1
Closer Look: Newton's 2nd Law
- 3D: Newton's 2nd Law Part 2
Closer Look: Advanced Newton's 2nd Law
- 3E: Newton's Third Law
- 3F: Gravity
- 3G: Circular Motion
Closer Look: Circular Motion

Unit 4 – Momentum & Energy

- 4A: Momentum & Impulse
- 4B: Conservation of Momentum
Closer Look: Conservation of Momentum
- 4C: Collisions
- 4D: Work
- 4E: Gravitational Potential Energy & Kinetic Energy
- 4F: Work-Energy Theorem
- 4G: Spring Potential Energy
- 4H: Conservation of Energy
Closer Look: Conservation of Energy
- 4I: Power

Unit 5 – Electricity & Magnetism

- 5A: Introduction to Electricity
- 5B: Static Electricity
Closer Look: Friction, Conduction, & Induction
- 5C: Coulomb's Law
Closer Look: Coulomb's Law
Closer Look: Advanced Coulomb's Law
- 5D: Electric Potential Energy & Electric Potential
- 5E: Current Electricity
- 5F: Ohm's Law
- 5G: Series Circuits
- 5H: Parallel & Complex Circuits
Closer Look: Circuits
- 5I: Electrical Power
- 5J: Magnetism
- 5K: Electromagnetism – Generators & Motors

Unit 6 – Waves & Optics

- 6A: The Nature of Waves
- 6B: Sound Waves
- 6C: Doppler Effect
- 6D: Sound – Diffraction & Interference
Closer Look: Diffraction & Interference
- 6E: Sound – Standing Waves & Resonance
Closer Look: Standing Waves
- 6F: Electromagnetic Waves
- 6G: Polarization
- 6H: Light – Diffraction & Interference
Closer Look: Diffraction & Interference
- 6I: Color
- 6J: Spectral Composition
- 6K: Reflection
- 6L: Spherical Mirrors
Closer Look: Mirrors
- 6M: Refraction
- 6N: Spherical Lenses
Closer Look: Lenses

Unit 7 – Nuclear Physics

- 7A: Radioactive Decay
- 7B: Fission
- 7C: Fusion
- 7D: Half-Life
Closer Look: Half-Life