



Semester 1 (approx. 90 Days)

Chapter	Topic	# Days	ACT Standards
1	Understanding Physics as Inquiry <ul style="list-style-type: none"> The Methods of Science Significant Figures Algebra and Trigonometry Graphing 	15	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g A.2a,A.2b,A.2c,A.2d,A.2e,A.2f, A.2g
2	Motion – Constant Velocity <ul style="list-style-type: none"> Vectors and Scalars Displacement and Distance Velocity (constant, average, and instantaneous) Interpreting Position vs. Time and Velocity vs. Time Graphs 	7	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g, A.2a,A.2b,A.2c,A.2d,A.2e,A.2f, A.2g
3	Motion – Acceleration and 2D motion <ul style="list-style-type: none"> Introduction to Acceleration Gravity Relative velocities Independence of vector quantities Projectile motion 	15	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g, A.2a,A.2b,A.2c,A.2d,A.2e,A.2f, A.2g,B.2a, B.2b,B.2c,B.2d,B.2e,B.2f
4	Newton’s Laws <ul style="list-style-type: none"> Force Diagrams Newton’s 1st Law Newton’s 2nd Law Newton’s 3 Law 	15	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g, A.2a,A.2b,A.2f,A.2g, A.3e, B.5a, B.5a, B.5b, B.5c, B.5d, B.5e, B.5f
5	Forces <ul style="list-style-type: none"> Newton’s Law of Gravitation Friction Hook’s Law Tension 	10	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g, A.2a,A.2b,A.2f,A.2g
6	Momentum <ul style="list-style-type: none"> Impulse Law of Conservation of Momentum Collisions and Energy Tension 	16	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f, A.1g, A.2a,A.2b,A.2d,A.2e,A.2f,A.2g, B.4a, B.4b, B.4c, B.4d, B.4e



Semester 2 (approx. 90 Days)

7	Work and Energy <ul style="list-style-type: none"> • Work • Gravitational Potential Energy and Kinetic Energy • The Law of Conservation of Energy • Power • Efficiency 	15	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f,A.1g, A.2a,A.2b, A.2d,A.2e,A.2f,A.2g, B.3a, B.3b, B.3c, B.3d, B.3e, B.3f, B.3g, B.3h, B.3i
8*	Wave Properties <ul style="list-style-type: none"> • Transverse versus Longitudinal • Wavelength, Frequency, and Speed of a Wave • Reflection • Refraction • Diffraction • Interference • Doppler Effect 	10	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f,A.1g, A.2a,A.2b,A.2d,A.2e,A.2f,A.2g, D.1a, D.1b, D.1c, D.1d, D.1e, D.1f, D.1g, D.1h, D.1i, D.1j, D.1k, D.1l, D.2a, D.2b, D.3a, D.2b
9*	Light <ul style="list-style-type: none"> • Electromagnetic Spectrum • Mirrors and Lenses 	10	D.4a, D.4b, D.4c, D.4d, D.4e, D.4f, D.4g, D.4h, D.4i, D.4j
10	Electrostatics <ul style="list-style-type: none"> • Coulombs Law and Electrostatic Forces • Electric Field – Single Charge • Electric Field – Multiple Charges • Electric Potential Energy • Electric Potential (Voltage) • Equipotential Lines • Introduction to Magnetism 	11	A.1c,A.1d,A.1e,A.1f,A.1g, A.2a,A.2b,A.2d,A.2e,A.2g, A.3f, C.1a, C.1b,C.2a, C.2b, C.2c, C.3a, C.3b, C.3c, C.3d, C.3e, C.3f, C.3g, C.3h, C.3i,C.4a, C.4b, C.4c, C.4d
11	Circuits <ul style="list-style-type: none"> • Ohms Law • Resistors in parallel and in Series • Kirchoff's Rules • Emf 	16	A.1a,A.1b,A.1c,A.1d,A.1e,A.1f,A.1g, A.2b,A.2c,A.2d,A.2e,A.2f, C.5a, C.5b, C.5c, C.5d, C.5e, C.5f, C.5g, C.5h, C.5i, C.5j, C.5k
	ACT Exam Review and Testing	5	

