



**Course Title:** Applied Physical Science

**Content Area:** Science

**Grade Level:** 10-12

## Scope and Sequence

Unit or Topic	Standards	Length of Time	Key Content	Assessment Tools	Scaffolding Strategies (Interventions, Special Education)	Resources & Materials
1 dimensional kinematics	3.2.P.B1.	3 weeks	Motion, distance, velocity, acceleration	Lab worksheets, homework problems, quizzes, tests	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Graphing Motion	3.2.P.B1.	2 weeks	Velocity and displacement graphs and relating to motion	Lab worksheets, homework problems, quizzes, tests	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Gravity and Freefall	3.2.10.B1.	2 weeks	Gravitational acceleration, distance and	Lab worksheets, homework	Online content that parallels the classroom work that	Physicsclassroom.com Teacher created labs



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			velocity changes due to gravity.	problems, quizzes, tests	can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Teacher created worksheets Teacher created quizzes and tests
Newton's Laws and Forces	3.2.P.B1.	5 weeks	Forces and free body diagrams, Newton's 3 laws of forces	Lab worksheets, homework problems, quizzes, tests	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Momentum and Impulse	3.2.12.B2.	3 weeks	Momentum of collisions and moving objects, impulse needs to change momentum	Lab worksheets, homework problems, quizzes, tests	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Work, energy, and power	3.2.12.B2.	3 weeks	Work, kinetic energy, gravitational	Lab worksheets, homework	Online content that parallels the classroom work that	Physicsclassroom.com Teacher created labs



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			potential energy, elastic energy, power, and conservation of mechanical energy	problems, quizzes, tests	can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Teacher created worksheets Teacher created quizzes and tests
Simple Machines	3.2.12.B2.	4 weeks	Pulleys, wheel and axle, inclined planes, wedge, screws, levers, gears	Lab worksheets, homework problems, quizzes, tests Project: Rube Goldberg Machine creation	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Vibrations and waves	3.2.P.B5.	3 weeks	Wave properties, wave addition and superposition, standing waves and nodes, wave speed calculations.	Lab worksheets, homework problems, quizzes, tests	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests
Sound and Music	3.2.P.B5.	3 weeks	Opened and closed tube instruments,	Lab worksheets, homework	Online content that parallels the classroom work that	Physicsclassroom.com Teacher created labs



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			stringed instruments, harmonics	problems, quizzes, tests	can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Teacher created worksheets Teacher created quizzes and tests
Astronomy	3.2.12.B6. 3.3.12.B1.	7 weeks	Earth, moon, sun and stars, planets, asteroids, meteors, and comets	Lab worksheets, homework problems, quizzes, tests Project: Space game creation	Online content that parallels the classroom work that can be accessed as needed, extra credit problems for students as needed, lab groups to assist students, modified tests and quizzes as needed.	Physicsclassroom.com Teacher created labs Teacher created worksheets Teacher created quizzes and tests