Flagler County Physics I
2025-2026 Scope and Sequence

Year at a glance: Please note that the map is based on a 180-day schedule.

Quarter 1: August 11, 2025- October 10, 2025	
Topics	Benchmark/ Standards
Unit 1: Mechanics in One Dimensions - Module 1: Physics Toolkit - Module 2: Representing Motion -Module 3: Accelerated Motion -Module 4: Forces in One Dimension **Unit 2: Mechanics in Two Dimensions** -Module 5: Displacement and Force in Two Dimensions -Module 6: Motion in Two Dimensions	SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.N.1.2 Describe and explain what characterizes science and its methods. SC.912.N.1.6 Describe how scientific inferences are drawn from scientific observations and provide examples from the contents SC.912.N.2.4 Explain that scientific knowledge is both durable and robust and open to change. Scientific knowledge can chan... SC.912.N.3.2 Describe the role consensus plays in the historical development of a theory in any one of the disciplines of s... SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.N.1.2 Describe and explain what characterizes science and its methods. SC.912.P.12.1 Distinguish between scalar and vector quantities and assess which should be used to describe an event. SC.912.P.12.2 Analyze the motion of an object in terms of its position, velocity, and acceleration (with respect to a frame ... SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.12.2 Analyze the motion of an object in terms of its position, velocity, and acceleration (with respect to a frame ... SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.12.3 Interpret and apply Newton's three laws of motion. SC.912.P.12.3 Interpret and apply Newton's three laws of motion. SC.912.E.5.2 Identify patterns in the organization and distribution of matter in the universe and the forces that determine... SC.912.P.12.9 Recognize that time, length, and energy depend on the frame of reference.

Quarter 2: October 14, 2025-December 19, 2025	
Topics	Benchmark/ Standards
Unit 2: Mechanics in Two Dimensions - Module 7: Gravitation - Module 8: Rotational Motion **Unit 3: Momentum and Energy** - Module 9: Momentum and Its Conservation - Module 10: Energy and Its Conservation - Module 11: Thermal Energy - Module 12: States of Matter	SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.E.5.2 Identify patterns in the organization and distribution of matter in the universe and the forces that determine... SC.912.E.5.6 Develop logical connections through physical principles, including Kepler's and Newton's Laws about the relationships SC.912.N.1.6 Describe how scientific inferences are drawn from scientific observations and provide examples from the contents SC.912.N.1.7 Recognize the role of creativity in constructing scientific questions, methods and explanations. SC.912.P.12.4 Describe how the gravitational force between two objects depends on their masses and the distance between them... SC.912.E.5.2 Identify patterns in the organization and distribution of matter in the universe and the forces that determine.. SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.10.2 Explore the Law of Conservation of Energy by differentiating among open, closed, and isolated systems and expl... SC.912.P.12.5 Apply the law of conservation of linear momentum to interactions, such as collisions between objects. SC.912.P.10.1 Differentiate among the various forms of energy and recognize that they can be transformed from one form to ot.. SC.912.P.10.2 Explore the Law of Conservation of Energy by differentiating among open, closed, and isolated systems and expl... SC.912.P.10.3 Compare and contrast work and power qualitatively and quantitatively. SC.912.P.12.9 Recognize that time, length, and energy depend on the frame of reference. SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.10.2 Explore the Law of Conservation of Energy by differentiating among open, closed, and isolated systems and expl... SC.912.P.10.4 Describe heat as the energy transferred by convection, conduction, and radiation, and explain the connection o... SC.912.P.10.5 Relate temperature to the average molecular kinetic energy. SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.N.1.5 Describe and provide examples of how similar investigations conducted in many parts of the world result in the...

	SC.912.P.8.1 Differentiate among the four states of matter.
Quarter 3: January 7, 2026- March 12, 2026	
Topics	Benchmark/ Standards
Unit 4: Waves and Light - Module 13: Vibrations and Waves - Module 14: Sound - Module 15: Fundamentals of Light - Module 16: Reflection and Refraction - Module 17: Interference and Diffraction **Unit 5: Electricity and Magnetism** - Module 18: Electrostatics	SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.10.20 Describe the measurable properties of waves and explain the relationships among them and how these properties ... SC.912.P.10.20 Describe the measurable properties of waves and explain the relationships among them and how these properties ... SC.912.P.10.21 Qualitatively describe the shift in frequency in sound or electromagnetic waves due to the relative motion of ... SC.912.N.4.1 Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's de... SC.912.P.10.20 Describe the measurable properties of waves and explain the relationships among them and how these properties ... SC.912.P.10.21 Qualitatively describe the shift in frequency in sound or electromagnetic waves due to the relative motion of ... SC.912.P.12.7 Recognize that nothing travels faster than the speed of light in vacuum which is the same for all observers no... SC.912.P.10.20 Describe the measurable properties of waves and explain the relationships among them and how these properties ... SC.912.P.10.22 Construct ray diagrams and use thin lens and mirror equations to locate the images formed by lenses and mirror.. SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.E.5.2 Identify patterns in the organization and distribution of matter in the universe and the forces that determine... SC.912.P.10.13 Relate the configuration of static charges to the electric field, electric force, electric potential, and elec... SC.912.P.10.14 Differentiate among conductors, semiconductors, and insulators. SC.912.P.10.15 Investigate and explain the relationships among current, voltage, resistance, and power. SC.912.P.10.15 Investigate and explain the relationships among current, voltage, resistance, and power.

Quarter 4: March 23, 2026- May 28, 2026	
Topics	Benchmark/ Standards
Unit 5: Electricity and Magnetism - Module 19: Electric Current and Circuits - Module 20: Magnetic Fields - Module 21: Electromagnetism **Unit 6: Subatomic Physics** - Module 22: Quantum Theory and the Atom - Module 23: Solid State Electronics - Module 24: Nuclear and Particle Physics	SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.N.1.5 Describe and provide examples of how similar investigations conducted in many parts of the world result in the... SC.912.P.10.18 Explore the theory of electromagnetism by comparing and contrasting the different parts of the electromagnetic... SC.912.N.1.1 Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/sp... SC.912.P.8.3 Explore the scientific theory of atoms (also known as atomic theory) by describing changes in the atomic model... SC.912.P.10.13 Relate the configuration of static charges to the electric field, electric force, electric potential, and elec... SC.912.P.10.14 Differentiate among conductors, semiconductors, and insulators. SC.912.P.10.10 Compare the magnitude and range of the four fundamental forces (gravitational, electromagnetic, weak nuclear, ...