



Floyd County Schools | Physics Curriculum Map

Instructional Segment	Kinematics	Force and Motion	Energy and Momentum	Waves	Electricity and Magnetism	Modern and Nuclear Physics
Estimated Time	5 weeks	7 weeks	6 weeks	8 weeks	8 weeks	2 Weeks
Crosscutting Concepts	• Cause and Effect • Patterns • Stability and Change • Scale, Proportion, and Quantity	• Cause and Effect • Scale, Proportion, and Quantity • System and System Models	• Energy and Matter • Scale, Proportion, and Quantity • System and System Models • Cause and Effect	• Cause and Effect • Patterns • Energy and Matter	• Cause and Effect • Patterns • Energy and Matter • Scale, Proportion, and Quantity	• Energy and Matter • Scale, Proportion, and Quantity • Stability and Change
Anchoring Phenomenon	A ball dropped and a ball launched horizontally will hit the ground at the same time.	How does mass affect the rate of free fall acceleration and force?	Energy is conserved with a spring or elastic pop- up toy.	When light is passed through a small slit, the light diffracts into predictable and measurable patterns.	Electrostatic demonstrations	Areas around nuclear accidents remain unsafe for years.
Core Ideas	• One and Two-Dimensional Motion • Graphing Motion • Vectors: Resultants & Components	• Motion and Forces • Newton's Laws • Types of Interactions • Circular Motion and Forces	• Energy • Energy Transformations • Momentum and Impulse • Collisions	• Wave Properties • Wave Behavior • Sound • Electromagnetic Radiation	• Static Electricity • Current • Electric Circuits • Magnetism • Electromagnetism	• Fission and Fusion • Radioactive Decay • Half-Life
Science and	Obtaining, Evaluating, and Communicating Information					



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Engineering Practices	• Planning and Carrying Out Investigations • Analyzing and Interpreting Data • Asking Questions and Defining Problems	• Constructing Explanations • Developing and Using Models • Using Mathematics and Computational Thinking • Planning and Carrying out Investigations	• Asking Questions and Defining Problems • Using Mathematics and Computational Thinking • Engaging in Argument from Evidence • Planning and Carrying out Investigations	• Developing and Using Models • Engaging in Argument from Evidence • Planning and Carrying Out Investigations	• Developing and Using Models • Planning and Carrying Out Investigations • Constructing Explanations	• Developing and Using Models • Engaging in Argumentation from Evidence
GSE	SP1. a, b, c, d	SP2. a, b, c, d, e	SP3. a, b, c, d	SP4. a, b, c, d, e, f, g	SP5. a, b, c, d, e	SP6. a, b, c