Plans for using PhET simulation activities in Loeblein’s HS Physics
IC In Class Activity; CQ clicker questions; HW homework; Demo: teacher centered group discussion

Semester 1
Unit 1: Introduction to Motion:
- Moving Man IC/CQ
- Calculus Grapher HW/CQ
Unit 2: More on motion and Measurement
- Vector Addition IC/CQ
- Projectile motion IC/CQ
Unit 3: Forces and the Laws of Motion
Publishing skills: curve fit, drawing, tables
- Forces and Motion: Two activities IC/CQ
- Ramp- Force and Motion: Two activities IC/CQ
- Maze Game: HW/CQ
- Curve Fitting: HW
Unit 4: Work, Energy, Momentum and Collisions
- Energy Skate Park: Four activities IC/CQ
- Masses and Springs: IC/CQ
- Collision: HW
Unit 5: Circular Motion and Semester Project
- Pendulum: HW/CQ
- Gravity Force Lab: IC/CQ
- Pendulum: HW
- Ladybug 2D: HW/CQ
- Ladybug Revolution: HW/CQ
- Masses and Springs: HW
- Balancing Act: (simulation & activity coming soon)

Semester 2
Unit 1: Heat and Thermodynamics
- Friction: Demo
- States of matter: IC/CQ
Unit 2: Waves: Introduction to light and sound
- Waves on a String: IC/CQ
- Fourier-Making Waves: Three activities IC/CQ/HW
- Sound: IC/CQ
- Wave Interference: IC/CQ
- Resonance: IC/CQ
- Bending Light: IC
- Geometric optics: IC/CQ
Unit 3: Electric and Magnetic Forces and Fields
- Faraday’s Electromagnet Lab: IC/CQ
- Electric Field Hockey with Charges and Fields: IC/CQ
- Balloons and Static Electricity with John Travoltage: Demo / CQ
- Gravity and Orbits: CQ
Unit 4: Fluid Mechanics, Semester Projects
- Density: IC
- Buoyancy: IC
- Balloons and Buoyancy: IC/CQ
- Under Pressure: IC/HW/CQ
- Estimation: HW
Unit 5: Current, Resistance, Circuits, and Circuit Elements
- Charges and Fields: Demo
- Capacitor Lab: HW
- Circuit Construction Kit: Three activities IC/CQ

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