Force

Enduring Understanding - A net force is required to change an object's velocity; no force is required to explain constant velocity.

2D Motion

Application of Constant Motion, Changing Motion, and Newton's First and Second Laws to Projectiles

Essential Question
Which will hit the ground faster: a small or large object?

- Freefall
- Ball Toss Lab
- Freefall Example Problem(s)
- Ratios: Consecutive Odd Numbers Consecutive Squares

Projectile Motion

Essential Question
Which will hit the ground first: an object dropped or shot?

- Horizontal Projectiles
- Paper Football Lab
- Equation Organizer
- 2D Motion Example Problem

Essential Question
How are horizontal and vertical motion linked?

- Angled Projectiles
- Qualitative Trajectory Analysis
- Angled Projectile Motion Lab

Newton's Laws

Three laws of motion that govern the study of Mechanics (Next Unit).

UCM and Gravity

Application of Newton's Second and Third Laws to Circular Motion and Gravitational Force (Next Unit)

Essential Question
How is net force identified on graphs of motion?

Examining Graphs of Motion for:
Constant Motion
Changing Motion
Balanced Forces
Unbalanced Forces

BOLD lined boxes mean Pre-AP ONLY

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