

Sample Use of PhET Activities for Middle School

<http://phet.colorado.edu>

The following list contains simulations that contain topics that align with Middle School curriculum.

MOTION AND FORCES

Energy Skate Park (Conservation of Energy: Potential and Kinetic)

Forces in 1 Dimension (forces)

Friction (frictional forces)

Lady Bug Revolution (momentum)

Lunar Lander (gravity, mass)

The Maze (velocity, acceleration)

Moving Man (speed, velocity, acceleration)

My Solar System (gravity)

Projectile Motion (air resistance, gravity)

The Ramp (forces, energy, work)

CIRCUITS, ELECTRICITY, AND MAGNETISM

Balloons and Static Electricity (electrical charge, electricity)

Battery Voltage (electron movement)

Circuit Construction (circuits, resistors)

Faraday's Electromagnetic Lab (magnets, electricity)

Faraday's Law (magnets, electricity)

The Generator (electricity, magnetism)

John Travoltage (static electricity)

Magnets and Electromagnets (electricity, magnetism)

Ohm's Law (circuits)

CHEMISTRY

Balloons and Buoyancy (density)

Conductivity (properties of matter)

Friction (molecular motion)

Gas Properties (pressure, volume, temperature)

Lasers, Neon Lights (atomic structure, energy levels)

Microwaves (kinetic molecular theory)

Nuclear Physics (conservation of mass, isotopes)

pH Scale (acids and bases)

Reaction and Rates (chemical reactions)

Rutherford Scattering, Models of Hydrogen Atom (models, atomic structure)

Salts and Solubility (physical properties, compounds)

States of Matter (temperature, phase changes) *coming soon*

WEATHER

Glaciers (water cycle, weather)

Greenhouse Effects (weather)

BIOLOGY

Eating and Exercise (nutrition, human body) *coming soon*

Color Vision (vision)