



## PRISMS PLUS

Indicates a research-demonstrated benefit

### Overview

A high school physics curriculum and professional development program that uses a learning cycle pedagogy, inexpensive materials, and technology.



**Type of Method**

Instructional strategy, Full curriculum



**Level**

**Designed for:** High School , Teacher Professional Development

**Can be adapted for:** Teacher Prep Course, Middle School, Intro College Algebra-based, Intro College Conceptual



**Setting**

**Designed for:** Lecture - Small (<30 students) , Studio

**Can be adapted for:** Lecture - Large (30+ students), Recitation/Discussion Session, Lab



**Coverage**

Few topics with great depth, Teachers can select from many topics, but only cover a few in depth.



**Topics**

Mechanics, Electricity / Magnetism, Waves / Optics, Thermal / Statistical, Modern / Quantum



**Instructor Effort**

Medium



**Resource Needs**

Computers for students, Simple lab equipment, Advanced lab equipment



**Skills**

**Designed for:** Conceptual understanding , Problem-solving skills ,

Making real-world connections , Using multiple representations, Designing experiments

**Can be adapted for:** Lab skills, Metacognition



**Research Validation**


**Based on research into:** theories of how students learn , student ideas about specific topics , research into instructional practice


**Demonstrated to improve:** conceptual understanding , problem-solving skills , beliefs and attitudes

**Studied using:** classroom observations , analysis of written work

 **Compatible Methods**     [Modeling, CPU](#)

 **Similar Method**     None

 **Developer(s)**     Lawrence Escalada, Roy Unruh, Timothy Cooney, and master high school physics teachers

 **Website**     <http://www.physics.uni.edu/prisms/prisms-plus>