Guide

Physlets

Indicates a research-demonstrated benefit

Overview

Small, flexible, educational physics applets that use simple graphics to convey only salient features of physical phenomena; modifiable and adaptable.

Type of Method	Computer simulations
Level	**Designed for:** Intro College Calculus-based, Intro College Algebra-based, Upper-level Undergraduate, Intro College Conceptual, Intermediate **Can be adapted for:** Teacher Prep Course, High School
Setting	**Designed for:** Lecture - Small (<30 students), Lab, Homework, Studio **Can be adapted for:** Lecture - Large (30+ students)
Coverage	Few topics with great depth, Many topics with less depth
Topics	Mechanics, Electricity / Magnetism, Waves / Optics, Thermal / Statistical, Modern / Quantum
Instructor Effort	Medium
Resource Needs	Projector, Computers for students
Skills	**Designed for:** Conceptual understanding, Problem-solving skills, Using multiple representations **Can be adapted for:** Lab skills, Designing experiments
Research Validation	**Based on research into:** theories of how students learn, student ideas about specific topics **Demonstrated to improve:** conceptual understanding
Compatible Methods	Peer Instruction, PhET, UW Tutorials, JiTT, Ranking Tasks, ILDs, CGPS, Context-Rich Problems, RealTime Physics, Workshop Physics, TIPERs, ABP Tutorials, SCALE-UP, Modeling, OSP, SDI Labs, OST Tutorials, ISLE, Thinking Problems, Workbook for Introductory Physics, LA Program, PET, PSET, LEPS, CAE TPS, Lecture-Tutorials, Astro Ranking Tasks, MBL, New Model Course, CPU, SCL, TEFA, CU Modern, CU E&M, CU QM, QuILTs, IQP, Thermal Tutorials, Mechanics Tutorials, Energy Project, SGSI, Paradigms, PUM, EiP, Tools for Scientific Thinking,

PI QM, M&I, Tutorials, Clickers, MOP, Responsive Teaching

Similar Methods	PhET, OSP, CPU
Developer(s)	Wolfgang Christian
Website	https://www.compadre.org/physlets