PER User's Guide
Physics Education Research
Evidence-based resources for teaching physics

Guide

Physical Science and Everyday Thinking

Indicates a research-demonstrated benefit

Overview

A guided-inquiry conceptual physical science course designed to help students develop a deep conceptual understanding of big ideas.

Type of Method	Full curriculum
Level	**Designed for:** Teacher Prep Course **Can be adapted for:** Teacher Professional Development
Setting	**Designed for:** Studio , Lecture - Small (<30 students) **Can be adapted for:** Lab
Coverage	Few topics with great depth
Topics	Mechanics, Electricity / Magnetism, Thermal / Statistical
Instructor Effort	Medium
Resource Needs	Projector, Computers for students, Advanced lab equipment, Cost for students, Tables for group work
Skills	**Designed for:** Conceptual understanding , Metacognition **Can be adapted for:** Making real-world connections, Using multiple representations
Research Validation	**Based on research into:** theories of how students learn , student ideas about specific topics **Demonstrated to improve:** conceptual understanding , beliefs and attitudes
Compatible Methods	PhET, JiTT, Physlets, SCALE-UP, OSP, LA Program, CPU
Similar Methods	PBI, PET, LEPS
Developer(s)	Fred Goldberg, Rebecca Kruse, Steve Robinson, Valerie Otero and Nephi Thompson
Website	http://cpucips.sdsu.edu/web/pset/