



## Activity-Based Tutorials, Volume 1: Introductory Physics

 Indicates a research-demonstrated benefit

### Overview

Guided-inquiry worksheets for small groups in recitation section of intro calculus-based physics. Instructors engage groups in Socratic dialogue.



**Type of Method**

Curriculum supplement, Tutorials



**Level**

**Designed for:** Intro College Calculus-based 

**Can be adapted for:** High School, Intro College Algebra-based



**Setting**

**Designed for:** Recitation/Discussion Session 

**Can be adapted for:** Lecture - Small (<30 students), Studio



**Coverage**

Many topics with less depth



**Topics**

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



**Instructor Effort**

Medium



**Resource Needs**

TAs / LAs, Computers for students, Advanced lab equipment, Cost for students, Tables for group work



**Skills**



**Designed for:** Conceptual understanding  , Making real-world connections


 , Using multiple representations 


**Can be adapted for:** Problem-solving skills, Metacognition



**Research Validation**

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

**Demonstrated to improve:** conceptual understanding 

**Studied using:** student interviews 



**Compatible Methods**

[Peer Instruction](#), [PhET](#), [UW Tutorials](#), [JiTT](#), [Ranking Tasks](#), [ILDs](#), [CGPS](#), [Physlets](#), [Context-Rich Problems](#), [RealTime Physics](#), [TIPERs](#), [SCALE-UP](#), [OSP](#), [SDI Labs](#), [OST Tutorials](#), [Thinking Problems](#), [Workbook for Introductory Physics](#), [LA Program](#), [CAE TPS](#), [MBL](#), [CPU](#), [SCL](#), [TEFA](#), [Tools for Scientific Thinking](#), [Tutorials](#), [Clickers](#)

 **Similar  
Methods**

[UW Tutorials](#), [OST Tutorials](#), [Lecture-Tutorials](#), [MBL](#), [New Model Course](#), [QuILTs](#),  
[Thermal Tutorials](#), [Mechanics Tutorials](#), [Tutorials](#)

 **Developer(s)**

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 **Website**

<http://perlnet.umaine.edu/abt/>

