### Interactive Lecture Demonstrations

*Indicates a research-demonstrated benefit*

#### Overview

Worksheets for use in lecture. Students predict results of demos, discuss in small groups, observe results, compare with predictions and explain.

<table>
<thead>
<tr>
<th>Type of Method</th>
<th>Instructional strategy, Curriculum supplement</th>
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| **Level**           | Designed for: Intro College Calculus-based 📌, Intro College Algebra-based 📌  
Can be adapted for: High School |
| **Setting**         | Designed for: Lecture - Large (30+ students) 📌  
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** | Low |
| **Resource Needs**  | Cost for students, Laboratory equipment for instructor to do demonstrations, but not laboratory equipment for all students |
| **Skills**          | Designed for: Conceptual understanding 📌, Using multiple representations |

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

**Demonstrated to improve**: conceptual understanding 📌

**Studied using**: research at multiple institutions 📌, research by multiple groups 📌, peer-reviewed publication 📌

**Compatible Methods**

- Peer Instruction  
- PhET  
- UW Tutorials  
- JiTT  
- Ranking Tasks  
- CGPS  
- Physlets  
- Context-Rich Problems  
- RealTime Physics  
- Workshop Physics  
- TIPERs  
- ABP Tutorials  
- 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**

- Peer Instruction  
- RealTime Physics  
- Workshop Physics  
- CAE TPS  
- MBL  
- TEFA  
- Tools for Scientific Thinking
Resources, training, & community


Articles about ILDs:


Workshops:

The developers of ILDs regularly offer in-person workshops, with dates regularly updated on their website.