



## Diagnoser Tools

Indicates a research-demonstrated benefit

### Overview

Tools to elicit students' initial ideas, lessons to engage those ideas, assessment items, and reporting structures for students and teachers.



#### Type of Method

Instructional strategy, Curriculum supplement



#### Level

**Designed for:** Teacher Professional Development , Middle School ,  
Teacher Prep Course, High School

**Can be adapted for:** Intro College Calculus-based, Intro College Algebra-based,  
Intro College Conceptual, Intermediate, Upper-level Undergraduate



#### Setting

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

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



#### Coverage

Few topics with great depth



#### Topics

Mechanics, Waves / Optics, Other Science, Pedagogy



#### Instructor Effort

Medium



#### Resource Needs

Computers for students, internet access



#### Skills

**Designed for:** Conceptual understanding

**Can be adapted for:** Problem-solving skills, Making real-world connections, Using  
multiple representations, Designing experiments, Metacognition



#### Research Validation

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

**Demonstrated to improve:** conceptual understanding , beliefs and attitudes  
 , retention of students

**Studied using:** classroom observations , analysis of written work ,  
research at multiple institutions , research by multiple groups



#### Compatible Method

[PBI](#)



#### Similar Method

None

 <b>Developer(s)</b>	FACET Innovations
 <b>Website</b>	<a href="http://www.Diagnoser.com">http://www.Diagnoser.com</a>
 <b>Intro Article</b>	4322
 <b>Intro Article</b>	<a href="#"><u>Designing Diagnostic Assessments</u></a>