



## Lecture-Tutorials for Introductory Astronomy

 Indicates a research-demonstrated benefit

### Overview

Socratic-dialogue driven, highly-structured collaborative learning activities for use in introductory Astronomy lecture courses.



**Type of Method**

Curriculum supplement, Tutorials




**Level**


**Designed for:**

**Can be adapted for:** Intro College Conceptual



**Setting**

**Designed for:** Lecture - Large (30+ students) 

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



**Coverage**

Many topics with less depth



**Topics**

Astronomy



**Instructor Effort**

Low



**Resource Needs**

Cost for students





**Skills**

**Designed for:** Conceptual understanding  , Using multiple representations



**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  , research at multiple institutions 



**Compatible Methods**

[Peer Instruction](#), [PhET](#), [JiTT](#), [CGPS](#), [Physlets](#), [Context-Rich Problems](#), [OSP](#), [LA Program](#), [CAE TPS](#), [Astro Ranking Tasks](#), [CPU](#), [TEFA](#), [Tutorials](#), [Clickers](#)



**Similar Methods**

[UW Tutorials](#), [ABP Tutorials](#), [OST Tutorials](#), [Astro Ranking Tasks](#), [QuLLTs](#), [Thermal Tutorials](#), [Mechanics Tutorials](#), [Tutorials](#)



**Website**

<http://astronomy101.jpl.nasa.gov/teachingstrategies/teachingdetails/?StrategyID=9>

