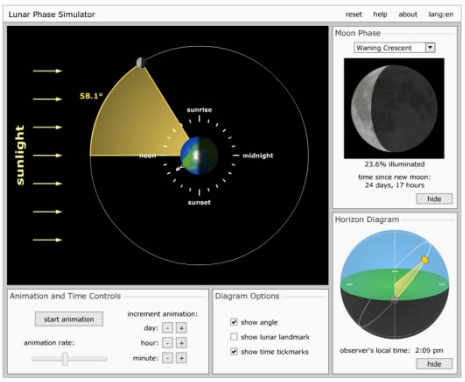
Web Resources for Teaching Astronomy – http://astro.unl.edu

All materials are aimed at the 100-level general education college course, but have considerable utility in upper level college and high school courses. All software is written in Flash and runs in a browser. All materials can be used on our web site or easily downloaded and hosted on local computers.

The Nebraska Astronomy Applet Project: Full-featured simulations and supporting materials appropriate for use in computer labs, homework, or classroom demonstrations. All student guides are available in Microsoft Word format. Modules are online for the following topics:

- Basic Coordinates & Seasons
- The Rotating Sky
- The Motion of the Sun
- Lunar Phases
- Planetary Orbit Simulator
- Eclipsing Binary Simulator
- Solar System Models
- HR Diagram Simulator
- Blackbody Curves & UBV Filters
- Hydrogen Energy Levels
- ExtraSolar Planets
- Atmospheric Retention
- Variable Star Photometry
- Cosmic Distance Ladder
- Habitable Zones

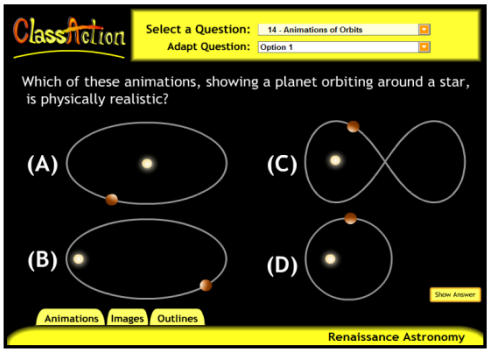


Lunar Phase Simulator

The ClassAction Project: A computer database of questions and feedback resources for think-pair-share. Voting can be done with a personal response system, index cards, or fingers. Instructors have total flexibility in choosing questions and feedback tools based on the needs of their class.

- Nearly 500 questions spanning 21 topic areas in astronomy
- Questions are strongly based on images, diagrams, and animations
- Questions are permutable − easily cast into alternate forms
- Over 100 simulations are available for feedback

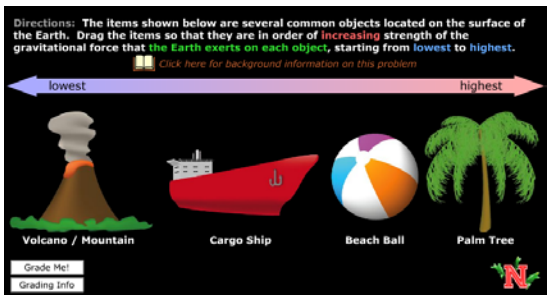
The ClassAction v2 Module Designer allows users to create their own modules containing any subset of ClassAction materials in any sequence. These user modules can then be downloaded in .zip files to their own computer.



ClassAction Question over Orbits from the Renaissance Astronomy Module

Other Resources

- A Library of Animated Ranking and Sorting Tasks is under development. These animations ask students to manipulate (either order or categorize) icons that can represent astronomical objects, characteristics, events, and concepts. Students are then graded, provided feedback, given access to background information, and allowed to take another randomized version of the task.
- Videotaped Public Talks by Visiting Astronomers
- Videos on Astronomy Demonstrations



A Simple Ranking Task on Gravity

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