

Paper Plate Education

"Serving the Universe on a Paper Plate"

Paper Plate Astronomy Videotape/DVD/Streaming Video



**Now available for
free
in streaming
video!**

Click the activity name
(right)
to view the clip.

- ✘ [Introduction](#)
- ✘ [Sunrise Sunset](#)
- ✘ [Satellite Tracking Bowl](#)
- ✘ [Sub-Solar Cup](#)
- ✘ [Altitude Measurer](#)
- ✘ [Platisphere](#)
- ✘ [Platisphere for Children](#)
- ✘ [Platisphere Tactile](#)
- ✘ [Photographic Plate](#)
- ✘ [Latitude by Polaris](#)
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The [Great Lakes Planetarium Association \(GLPA\)](#), with support from the Office of Space Science, produced a 70-minute video which demonstrates the construction and use of nine paper plate activities and variations ([descriptions](#) listed below). If you cannot view the free streaming video

through the links above, you may preview the video either by selecting an activity and viewing excerpts of pictures and instructions, or by reading the [text-only narration](#) for each activity.

Members of the GLPA can request a free copy of the video from the GLPA "slide bank" while supplies last. GLPA members and non-members alike can [order Paper Plate Astronomy](#) as a VHS videotape or as a DVD for \$14.00 plus \$3.00 shipping. It must be noted that, for only \$20.00, membership in [GLPA](#) with all of its many benefits is a great value.

Excerpts

(Click a title to go to detailed descriptions and accompanying images.)

- ✘ [Sunrise Sunset](#)
- ✘ [Satellite Tracking Bowl](#)
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- ✘

Descriptions

(Click a title to go to the respective activity; click a thumbnail image to enlarge the plate.)

[Sunrise Sunset](#)



Draw a local horizon around the perimeter of a plate. Over several months, track the changing position of the sunrise or sunset against the local background.

[Satellite Tracking Bowl](#)



Plot the predicted passes of satellites onto a bowl which you can take outside as a viewing aid.

Sub-Solar Cup



Indicate in real time the position on the earth at which an observer can see the sun directly overhead. This allows the user to track the changing position of the sun between the tropics and to trace out and define the analemma.

Altitude Measurer



Make an astrolabe-like device that allows you to measure the altitude of celestial objects.

Platisphere



Make a device that reduces the sphere of stars to a paper plate. With this tool you can accurately determine the positions of the circumpolar stars for any given time and any given date. This video shows several variations of the *Platisphere*, including a children's version, a tactile version for visually impaired users, and the *Photographic Plate*, which predicts the smear of stars (star trails) produced from a long duration exposure on film.

Latitude by Polaris



Illustrate how navigators used the North Star to determine their position, correlating the observed altitude of Polaris with the navigator's latitude.

Altitude of the Noon Sun II



Demonstrate the range of the sun's altitude through the seasons for any given location. This plate also conveys why the sun sometimes never rises in the far north for months at a time.

[Moon Finder](#)



Observe and plot the moon's phases and its position relative to the sun. Then you make a model which can predict the position of any given moon phase for any date and any time.

[Planet Pointer II](#)



Plot the position of the planets in orbit around the sun and make a device to transfer that model to the real night sky. Essentially, your device shows you where to look to see the planets.

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