

# Exploring Hercules - Educator's Guide (Ages 8-11)



## At the end of these Night Sky activities students will understand:

- Hercules is a constellation seen in the summer
- The mythology behind this constellation
- Its four central stars are the Keystone asterism
- Messier 13 is a globular cluster

## Astronomy background information

Named after the legendary Greek hero, the constellation Hercules is large but lacks bright stars. However, its four central stars form an easy to find quadrilateral called the “Keystone”. Night Sky’s artwork shows Hercules fighting the Hydra and wearing the skin of a lion he had defeated earlier. This lion is commemorated as the constellation Leo.

The most famous object in the constellation is Messier 13, the Great Globular Cluster in Hercules. A globular cluster is a spherical collection of hundreds of thousands or more stars packed very tightly together. They orbit galaxies like our own Milky Way. About 150 globular clusters have been discovered slowly moving around our galaxy. The clusters are generally composed of very old stars.

Messier 13 is just about visible to the unaided eye in a really dark sky with perfect viewing. It is 25,000 light-years from the Sun so the Arecibo Message transmitted towards it in 1974 will take 25,000 years to reach it.

## Night Sky App Essential Settings

Go to Night Sky Settings  and make sure the following Preferences are set.

### Turn On these Effects:

Real Sky Representation  
Environment Based Horizons  
Enable Messier Objects  
Show Constellation Lines

### Turn Off these Effects:

Show Satellites  
Daytime Effect  
Show Trajectories and Orbits  
Show Glass Mythology (at start of activity)

## Accessible Learning:

- Text size can be increased in the Preferences section
- Star numbers can be reduced by sliding two fingers down the screen

