Exploring Hydra - Educator's Guide (Ages 8-11)

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

- The best time of year to view Hydra is in the Spring
- Alphard meaning solitary one is the brightest star in Hydra
- The origin of the term planetary nebula
- The historical background of Hydra's deep sky objects

Astronomy background information

Hydra is the largest of the 88 constellations. To the ancients it represented the multi-headed Lernaean Hydra but is usually depicted as a water serpent.

Hydra lacks bright stars. The apparent loneliness of Hydra's brightest star caused ancient Arabic astronomers to call it Alphard ("The Solitary One"). Alphard is an orange giant star about 177 light-years from the Sun

Hydra has a collection of deep sky objects. Charles Messier (1730 – 1817) created a category of nebulae that he believed to resemble planetary discs. NGC 3242 a good example of a planetary nebula and is nicknamed the "Ghost of Jupiter" as it appears similar to the giant planet in smaller telescopes.

Messier 48 is an open star cluster about 2,000 light-years away. It is unclear who discovered the cluster. It may have been Messier himself, but there is nothing at the co-ordinates he recorded. The actual discoverer may have been the British astronomer Caroline Herschel (1750-1848) who observed and recorded it.

Messier 83 is a large barred spiral galaxy about 15 million light-years away from us. We see it face on so it is nicknamed the Southern Pinwheel galaxy.

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 Horizon
Show Constellation Lines
Stop Text and Lines Disappearing
Show Messier Objects

Turn Off these Effects:
Show Satellites
Show Trajectories and Orbits
Show Glass Mythology

Accessible Learning:

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