Exploring Star Clusters - Educator's Guide (Ages 16-18)

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

- Star clusters are groups of stars held together by gravity
- There are two varieties of star cluster
- Open clusters are irregular groups of thousands of young stars
- Globular clusters are much larger spherical masses of older stars

Astronomy background information

Star clusters come in two types. Open clusters are groups of young stars that formed together in the same cloud of gas and dust. Usually they contain a few thousand widely separated stars. Their relatively low mass means that stars gradually escape from open clusters and move independently through the galaxy. Our Sun will once have been part of one of these clusters.

In contrast, globular clusters are dense masses of old stars. They contain hundreds of thousands to even a million stars. Most of the stars in globular clusters are very old and reddish, in fact globular clusters appear to have formed shortly after the Universe itself formed. At least 150 globular clusters slowly orbit in a halo around our galaxy. The stars in globular clusters are so close together that any planets inside globular clusters will never have dark skies at night!

Messier objects below to a catalogue of fuzzy-looking deep space objects created about 250 years ago by astronomer Charles Messier.

Night Sky App Essential Settings

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

Turn On these Effects:

Environment Based Horizon
Real Sky Representation
Enable Messier Objects

Turn Off these Effects:

Show Satellites
Draw Trajectories and Orbits
Show Ecliptic Line
Daytime Effect
Show Glass Mythology
Show Constellation Lines

Accessible Learning:

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