Observing Messier Objects in the Fall Sky - Educator's Guide (Ages 8-11)

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

- How to find some of the Messier objects that are visible in fall
- Messier 2 and Messier 15 are both globular clusters
- Messier 31 and Messier 33 are spiral galaxies
- The open cluster Messier 34 is located in Perseus

Astronomy background information

Various types of astronomical objects are listed in the Messier catalog. This activity will introduce the students to some of the most prominent Messier objects visible in a northern hemisphere fall (autumn) sky.

Messier 2 and 15 are both globular clusters. These are giant spherical clusters of stars tightly packed together. Messier 15 is located near Enif, the star at the nose of Pegasus while Messier 2 is close to Sadalsuud, the brightest star in the constellation Aquarius.

Messier 31 is the Andromeda Galaxy which can be seen with unaided eyes if you have dark skies. It's a large spiral galaxy of about a trillion stars about 2.5 million light years away making it the most distant object most people can see without a telescope. Another smaller spiral galaxy is close to Messier 31. This is Messier 33, also known as the Pinwheel Galaxy, in the small constellation Triangulum.

The constellation Perseus is home to Messier 34. This is an example of an open cluster of young stars that formed together. In this case the cluster's stars are believed to be only 250 million years old.

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
Show Constellation Lines
Enable Messier Objects

Turn Off these Effects:
Show Satellites
Daytime Effect
Show Trajectories and Orbits
Show Ecliptic Line
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

SATELLITES

Show Satellites ⬜

EFFECTS

Night Mode (Red) ⬜
Real Sky Representation ✅
Show Sky Tags ⬜
Environment Based Horizons ✅
Daytime Effect ⬜
Draw Trajectories and Orbits ⬜
Show Ecliptic Line ⬜
Show Glass Mythology ⬜
Show Constellation Lines ✅
Stop Text and Lines Disappearing ⬜

2.7 seconds to fade

Enable Messier Objects ✅