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

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

- How to find some Messier objects in the spring sky
- Open and globular clusters are distinctly different types of object
- Messier 3 is a globular cluster while Messier 44 is an open cluster
- Messier 51, 65 and 66 are spiral galaxies
- Astronomers also use the New General Catalogue

## **Astronomy background information**

Messier 3 is a spectacular globular cluster about 34 thousand light-years from us. It is a tight ball of about half a million stars. Through binoculars it will look like a fuzzy star, but a telescope will show how it is made of stars.

Messier 44 in Cancer is an open cluster often called the Beehive Cluster. These are much smaller than globular clusters and usually contain less than a thousand stars. It is just visible to the unaided eye.

One of the most famous objects in the catalogue, the Whirlpool Galaxy (Messier 51) is a beautiful spiral galaxy seen face on. It is part of the constellation Canes Venatici but is right under the tail of Ursa Major. Its spiral arm structure is easily seen thanks to this orientation so it is a popular target for astronomers studying galactic structure. It is about 31 million light-years away.

Messier 65 and 66 are two more spiral galaxies about 35 million light-years away. The pair are close to NGC 3628, another spiral galaxy, and the three are known as the "Leo Triplet".

## **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

