

Galaxies - Educator's Guide (Ages 12-15)



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

- Galaxies are clusters of billions of stars
- Galaxies come in several shapes
- The Milky Way is a spiral galaxy

Astronomy background information

A galaxy is a massive collection of stars, gas and dust held together by gravity. Note that most of the mass of a galaxy is comprised of dark matter however this cannot be visually observed.

There are estimated to be more than **200 billion galaxies** in the observable Universe. Galaxies are classed by their shapes. These can be **elliptical, spherical, spiral** or **irregular**. In the final activity sheet question Messier 81, Messier 49 and Messier 101 are all spiral galaxies. Messier 87 is an elliptical galaxy and the Large Magellanic Cloud is an example of an irregular 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 Horizons
Daytime effect
Show Constellation Lines
Stop Text and Lines Disappearing
Enable Messier Objects

Turn Off these Effects:

Show Satellites
Show Trajectories and Orbits
Show Ecliptic Line
Show Glass Mythology
Hipparcos catalog

Accessible Learning:

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

