

# Exploring Canis Major - Educator's Guide (Ages 8-11)



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

- Canis Major is a northern hemisphere winter constellation
- The Milky Way runs through this small pattern that represents a dog
- Sirius is the brightest star in the sky and is a double star
- The deep space object called Messier 41 is located in Canis Major

## Astronomy background information

The constellations of Canis Major (the Larger Dog) and Canis Minor (the Smaller Dog) represent the two hunting hounds of the hero Orion. The two Dog constellations appear to follow Orion through the winter sky. The stars of Canis Major can be joined to form the figure of a dog.

Sirius (also known as the “Dog Star”) is the both the most prominent star in Canis Major and the brightest star seen in Earth’s skies. Its brightness is reflected in its name which is derived from the Greek for “Scorching”. Sirius is about 25 times as intrinsically bright as the Sun and it is relatively close to the Sun at just 8.6 light-years away. Sirius is actually a double star. The second star in this binary system is a tiny white dwarf and was not observed until 1862.

The Milky Way prominently passes through the constellation which is also home to Messier 41. More than 2,000 light-years away, this is an open cluster of about 100 young stars visible with binoculars or a telescope.

## 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

## EFFECTS

Night Mode (Red)	<input type="checkbox"/>
Real Sky Representation	<input checked="" type="checkbox"/>
Show Sky Tags	<input type="checkbox"/>
Environment Based Horizons	<input checked="" type="checkbox"/>
Daytime Effect	<input type="checkbox"/>
Draw Trajectories and Orbits	<input type="checkbox"/>
Show Ecliptic	<input type="checkbox"/>
Show Celestial Equator	<input type="checkbox"/>
Show Meridian	<input type="checkbox"/>
Show Equatorial Grid	<input type="checkbox"/>
Show Azimuthal Grid	<input type="checkbox"/>
Show Glass Mythology	<input type="checkbox"/>
Show Constellation Lines	<input checked="" type="checkbox"/>
Stop Text and Lines Disappearing	<input checked="" type="checkbox"/>
Enable Messier Objects	<input checked="" type="checkbox"/>