

Exploring Orion - Educator's Guide (Ages 8-11)



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

- Orion is named after a legendary hunter
- New stars are forming in gas and dust clouds in Orion
- Hotter stars look bluish, cooler stars look reddish
- Canis Minor and Canis Major represent Orion's hunting dogs

Astronomy background information

Orion is a famous and distinctive constellation. In Greek mythology, Orion was the son of the god Poseidon and was a powerful hunter. In the sky Orion appears to be preparing to fight Taurus the Bull but there is no Greek myth about this encounter. Two constellations near Orion represent his hunting dogs. These are Canis Minor and Canis Major (meaning “Little Dog” and “Big Dog” respectively).

The “Belt” is a famous feature in Orion, it is made of the three stars Alnitak, Alnilam, and Mintaka. Astronomers use the word nebula (pl. nebulae) to describe a cloud of gas and dust in space. “Nebula” is Latin for “cloud”. There are several important nebulae in this constellation and one of them, the Orion Nebula, is just visible to the unaided eyes. The Hubble Space Telescope has shown that new stars are currently forming from the gas and dust in these nebulae.

The colors of stars are related to their temperatures. Two of Orion’s stars clearly show this. Rigel appears bluish and is one of the hottest stars at about 21,300°F (11,800°C), while Betelgeuse is about 6,000°F (3,300°C) and is reddish orange.

Night Sky App Essential Settings

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

Turn On these Effects:

- Environment Based Horizons
- Show Glass Mythology
- Show Constellation Lines
- Stop Text and Lines Disappearing
- Enable Messier Objects

Turn Off these Effects:

- Show Satellites
- Day Time Effect
- Show Trajectories and Orbits
- Show Ecliptic Line
- Real Sky Representation
- Stop Glass Mythology Melting

Accessible Learning:

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

