

Stellar Nursery: Orion Nebula

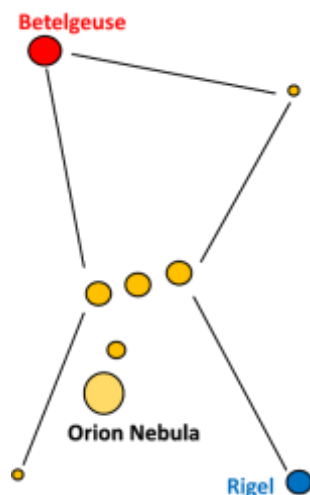
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The hunter has returned. Each evening he travels the night sky, club raised, sword on belt, with two dogs at his heels. Look southward during the evenings, November through March, and you may spot Orion as he makes his nightly trek across the sky. Look first for the three evenly spaced stars that make up his belt. Then look for the sword dangling below the belt and to the fuzzy grouping of stars that decorate it...they hold a mystery... a stellar nursery... a glowing cloud of gas and dust... a place where stars are born! This is one of the most studied regions of our galaxy where scientists are learning how stars are formed and look for clues to the formation of the universe.

Can you find a reddish star, Betelgeuse, at Orion's right shoulder? It is known as a Red Giant - a huge star that will over time become a White Dwarf. Look diagonally down and to the right to find Orion's left foot. Do you see the bluish star Rigel? Why do you suppose it looks blue rather than red? Keep exploring the night sky... look for the dogs – Canis Major and Canis Minor. One is chasing a rabbit – Lepus. Can you find the North Star? Many people have used it as a navigation guide. Some even used it on their journeys to freedom. Do you know who these people were? What other stories and mysteries does the night sky hold for you?



Orion constellation image by Mouser. [Use link.](#)



Interesting Facts

- Orion is known as the hunter in Greek mythology.
- The twinkling of stars on cold winter nights is called scintillation. When viewed through binoculars or a telescope the stars may gently quiver or shake so much that viewing is very difficult. Extreme scintillation generally occurs when a cold front or big storm has passed by.
- Galileo Galilei made his own telescope to observe the night sky. In 1610 he discovered Jupiter's four largest moons, now called the Galilean moons.

Activities for Children & the Young at Heart

1. Fly through the Orion Nebula with this [NASA video](#). It may also be viewed on this [NASA webpage](#).
2. Why do you think wintertime is the best time to view dimmer stars? What about the winter weather makes for clear skies? What makes star gazing harder during the winter?
3. Watch Orion over the winter. View him at the same time each night. Is he in the same place each night? Draw and date what you see over time.
4. Why do you think stars are different colors? Write down your ideas then look up both Betelgeuse and Rigel in a star guide or on the [NASA website](#) to find out.
5. Look up the various myths written about Orion then write your own story.
6. Try building your own telescope. [How Stuff Works has a simple plan for one.](#)

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