

11. The Mighty Hunter in the Winter Sky

By Shannon Jackson

¹ I'd like to introduce you to one of my special friends. I only see him in the winter—and only when the sky is clear of clouds. He is a mighty hunter who has been placed in the winter sky with his faithful dogs Canis Major and Canis Minor. Orion and his dogs hunt animals that have been placed nearby in the night sky, like Lepus, the rabbit and Taurus, the bull.



² There are several stories about this beautiful constellation, but the one I like best is from Greek mythology. This tale has Orion in love with Merope, one of the Seven Sisters who form the Pleiades, but Merope would have nothing to do with him. Orion was killed when he was stung by Scorpius the scorpion. The gods felt sorry for him, though, and placed him in the sky with his two hunting dogs and the animals he liked best to hunt. They also put Scorpius in the sky—but placed him opposite in the sky so that neither would appear at the same time—and Orion would never be stung by Scorpius again.

³ Orion is probably the second most recognizable pattern of stars in the sky (after the Big Dipper). Finding Orion in the winter sky should be no problem. Look towards the southern horizon for the three bright stars that make up Orion's belt (Alnitak, Alnilam, and Mintaka). The bright star that makes up his left shoulder is Betelgeuse. If Betelgeuse replaced our sun, its size would completely engulf the Earth and extend to Mars. There is an even brighter star in the opposite corner from Betelgeuse, called Rigel. This star is Orion's right knee. Rigel is the brightest star in Orion, and in fact, is the seventh brightest star in the heavens.

⁴ Orion is visible from late fall to early spring. When you find Orion, see if you can locate his bow to the right and his raised arm and club to the left. Once you find him, it's fun to try to find his companions—Lepus, Taurus, Canis Major, and Canis Minor. Pleiades is also nearby.

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<p>1. Can you see Orion in the summer?</p> <p>_____</p> <p>_____</p>	<p>2. Orion is holding on to _____.</p> <p>_____</p> <p>_____</p>
<p>3. Name five constellations that are located close to Orion?</p> <p>_____</p> <p>_____</p>	<p>4. What should you look for when first trying to locate Orion?</p> <p><input type="radio"/> A His club</p> <p><input type="radio"/> B His belt</p> <p><input type="radio"/> C His bow</p> <p><input type="radio"/> D His left shoulder</p>
<p>5. What is the name of the brightest star in Orion?</p> <p><input type="radio"/> A Betelgeuse</p> <p><input type="radio"/> B Rigel</p> <p><input type="radio"/> C Alnitak</p> <p><input type="radio"/> D Mintaka</p>	

12. Locating the Circumpolar Constellations

By Shannon Jackson

¹ When you look up at the night sky, what do you see? People from many cultures have looked up at night and used the star groups, or constellations as they are called, to tell stories. Simple shepherds more than 5,000 years ago had many stories about the stars and constellations—and they couldn't even read or write. Some of the names sound strange because we still use the names given long ago. Want to learn some tips on how to find some of these pictures in the sky?

² Five constellations are always in our northern sky. Other groupings appear seasonally, and then disappear as they fall below the horizon. There are five constellations, however, which seem to circle Polaris (poLAR us), also known as the North Star. The North Star always stays put while the other stars and constellations are moving. Polaris is marking the North Pole for you. Of eighty-eight constellations, five are circling the North Pole—so we say they are circumpolar (circling the pole). And because they are always in our night sky in the northern hemisphere, these five circumpolars are a good starting point in learning the constellations.

³ Choose a cloudless night. Begin your star connection with the most famous of all star pictures—Ursa Major, The Great Bear. Within this constellation is the Big Dipper. Some people think the Big Dipper is a constellation by itself—in fact, it is a part of this larger constellation Ursa Major.

⁴ The Big Dipper will help find all of the other constellations. In the fall, look fairly low in the northern sky for a large dipper with a crooked handle, made up of seven bright stars. These stars make up the main body and tail of the Great Bear. This group of stars is the one picture that looks the most like its name. A dipper is something people used long ago when they would get water from a well or bucket.

⁵ It is important to remember, the Big Dipper will not be in the same position throughout the year. As the seasons change, it rotates around the sky. In the fall it is full of water. In the winter it looks like an icicle with the handle hanging down, springtime has the Dipper letting the water "rain down on us," and summertime has the Dipper dipping into the bucket to get us a drink on hot days.

⁶ We can use the "pointer stars" of the bowl in the Big Dipper to find Polaris. Pass over the first star you come to and go to the star next in

line. This will be Polaris. If you can find Polaris, then you can now find the Little Dipper. It is also made up of seven stars, with the handle bent opposite of the handle in the Big Dipper. Polaris is the last star in the tip of the handle. This is part of the constellation Ursa Minor.

⁷ Continue in a straight line from Polaris to the tip of the next constellation, Cepheus (SEE fee us). He looks like a house, his pointed hat being the roof. He was an ancient king who played an important part in Greek mythology and the husband of Cassiopeia (cass ee oh PEE a). We'll meet her next.

⁸ Cassiopeia is bright and easy to find in the sky. Sometimes she looks like W and sometimes like an M. Cassiopeia was ancient queen. This constellation, the Lady in the chair, is the second most easily found star picture in the sky. All of the five stars are almost the same brightness or magnitude.

⁹ The fifth circumpolar constellation is Draco the Dragon. He is made up of faint stars, almost as if trying to conceal his presence as he lurks in the sky, ready to gobble up the king and queen. The easiest way to find Draco is to start with his tail. Go back to the star we skipped over when we were going from the Big Dipper to Polaris. That star is the tip of Draco's tail. He wraps around the Little Dipper. His head is a group of four stars that are directly in line with the bowl of the Little Dipper. There are fifteen stars in this constellation.

¹⁰ Finding the five circumpolar constellations in the real sky can be a challenge—just remember to start with the Big Dipper and go from there. Before long you will be ready to tackle finding the rest of the eighty-eight constellations.

Locating the Circumpolar Constellations

<p>1. Which constellation should you try locate first in order to find the other four?</p> <hr/> <hr/>	<p>2. True or False: The Big Dipper is a constellation.</p> <hr/> <hr/>
<p>3. Who is Draco the Dragon going to gobble up?</p> <p><input type="radio"/> A The Little Dipper</p> <p><input type="radio"/> B The Big Dipper</p> <p><input type="radio"/> C The King and Queen</p> <p><input type="radio"/> D Polaris</p>	<p>4. Which figure contains Polaris, the North Star?</p> <p><input type="radio"/> A Cepheus</p> <p><input type="radio"/> B The Little Dipper</p> <p><input type="radio"/> C The Big Dipper</p> <p><input type="radio"/> D Cassiopeia</p>
<p>5. Write a story that uses all five of the circumpolar constellations.</p> <hr/> <hr/> <hr/>	<p>6. Do some research—find a picture of the five circumpolar constellations and make a sketch of them.</p> <hr/> <hr/> <hr/>

