



Night Sky Checklist
January–February–March
Unaided Eye Astronomy

Constellations & Asterisms

Observation	✓	Date	Comments
Orion			
Belt of Orion			
Taurus			
Canis Major			
Canis Minor			
Gemini			
Auriga			
Heavenly “G”			

Stars

Observation	✓	Date	Comments
Betelgeuse			
Rigel			
Sirius			
Canopus			
Procyon			
Aldebaran			
Castor			
Pollux			
Capella			
Epsilon Aurigae			

Deep Sky Objects

Observation	✓	Date	Comments
M42 Orion Nebula			
Hyades			
Pleiades			
Winter Milky Way			
M44 Praesepe			

Lagniappe

Observation	✓	Date	Comments
Quadrantids			

What is This Stuff?

**A Guide to the Night Sky Checklists
January–February–March Objects**

The following information may help you understand why these objects are on the Night Sky Checklists.

Constellations and asterisms (Astronomers recognize 88 official constellations, but asterisms are unofficial and made from parts of one or more constellation. All are imaginary dot-to-dot drawings in the sky. See the Lafayette Science Museum’s web site for monthly star maps showing their shapes and positions.)

Orion, the Hunter, is a constellation so prominent that it can be found in the sky lore of most cultures. It may be identified in various cultures as a hunter, a warrior, or something completely different.

The **Belt of Orion** is marked by the three moderately bright stars in the middle of Orion.

Taurus, the Bull, represents the “V-shaped” head of a bull charging toward Orion. For some reason, seven sisters appear to be riding on the back of the bull, probably a remnant of a different mythological tradition. Because Taurus lies along the ecliptic, the plane of Earth’s orbit projected into the sky, it lies along the strip of the sky where the sun, moon, and planets can appear.

Canis Major, the Larger Dog, represents one of Orion’s hunting dogs.

Canis Minor, the Smaller dog, represents Orion's other hunting dog. It's such a small constellation that it unfortunately looks more like a hot dog.

Gemini, the Twins, represents two ancient Greek brothers standing side by side in the sky. This is another ecliptic constellation.

Auriga, the Charioteer, looks nothing like a chariot driver but instead resembles a pentagon.

The Heavenly G is an asterism consisting of the bright stars Capella, Castor, Pollux, Procyon, Sirius, Rigel, Aldebaran, and Betelgeuse.

***Stars** (The stars on the checklist are easily visible to the unaided eye except in the most light polluted parts of cities.)*

Betelgeuse is the bright red star marking a shoulder of Orion.

Rigel is the very bright blue-white star marking one of Orion's feet. The colors of Rigel and Betelgeuse make a striking contrast.

Sirius, also known as the Dog Star, is the brightest star of the night sky (although not as bright as some planets). Distinctly blue-white, in some traditions it marks the Larger Dog's heart. Find it by following the line of Orion's Belt off to the left of the Hunter.

Canopus is the second brightest star in the night sky, and can only be seen in the United States from the southernmost states. You'll need a very clear southern horizon and a good, clear night to see it at all!

Procyon is located in Canis Minor. Find it by following Orion's Belt to Sirius, then making a right angle turn approximately upward.

Aldebaran is a bright orange-red star in the "V-shaped" head of Taurus. Aldebaran is not part of that group, though, being about 65 light years distant (about half the distance of the fainter stars appearing near it).

Castor is one of the two bright stars giving Gemini, the Twins, its name. In Greek mythology Castor was the mortal brother of Pollux.

Pollux is the other bright star in Gemini, the Twins, and represents Castor's immortal brother.

Capella is a bright yellow star in Auriga. Find it by extending a line from Rigel past the dimmer shoulder of Orion.

Deep Sky Objects (DSOs are interesting objects beyond our solar system. Those identified with “M-numbers” are on a popular list compiled by the French comet hunter Charles Messier roughly around the time of the American Revolution. Most deep sky objects look like “faint fuzzies” to the unaided eye, and many are attractive in binoculars or a low power telescope.)

M42, the Orion Nebula, is a vast region of gas and dust where stars are forming. To the unaided eye it looks like a fuzzy star in the middle of Orion’s sword.

The Hyades make up the head of Taurus, the Bull. This relatively faint “V-shaped” group is an open star cluster, a family of relatively young stars born in the same region of space. These typically have populations ranging from dozens to thousands of stars, and the Hyades are no exception—close to 500 stars are known in this group, about 150 light years distant. Although the individual stars are somewhat faint, the group is easy to find by following the line of Orion’s Belt to the right of the Hunter. The Hyades appear to cluster around the bright star Aldebaran, a coincidence because Aldebaran is only about half as far away.

M45, The Pleiades, also known as The Seven Sisters, are another open star cluster in Taurus. They are sometimes said to represent sisters riding on the back of the bull. Over 1000 stars have been identified in the cluster, which is about 430 light years away. Because of the tiny dipper-like shape of The Pleiades, the group is often mistaken for the Little Dipper. This is a very striking group when seen in binoculars.

Although not as bright as the Summer Milky Way, the **Winter Milky Way** is prominent from just left of Orion through Auriga and into Cassiopeia. This is essentially the flat plane of our galaxy seen from the inside.

M44, Praesepe, also known as the Beehive from its appearance in binoculars or a low power telescope, is an open star cluster in the very faint constellation Cancer, the Crab. Visible to the unaided eye on a clear night far from lights, this “faint fuzzy” was known to the ancients. Astronomers have identified about 1000 cluster members, roughly 500 to 600 light years away.

Lagniappe

The **Quadrantid Meteor Shower** peaks around January 3 each year. Although it can be a very good shower, it is poorly observed due to cold weather and frequent cloudiness. Like most meteor showers, viewing before midnight is nearly fruitless (as is viewing from the city—if the sky is not dark enough to see the Milky Way, you are unlikely to see many meteors). The exact peak and expected numbers vary from year to year. For specific information for the Acadiana area each year, see the Sky Events posted on the Lafayette Science Museum web site or call the Planetarium staff at 337-291-5544.

*LSM web site: www.lafayettesciencemuseum.org
Look for the Lafayette Science Museum on Facebook, too!*