

OCTOBER 2026

10:00 pm CDT on October 1
 9:00 pm CDT on October 15
 7:00 pm CST on November 1

To use this chart: hold the chart in front of you and turn it so the direction you are facing is at the bottom of the chart.

- **Bright Stars**
- **Medium Bright Stars**
- **Faint Stars**

Scan dark skies with binoculars:

- M-13: Globular star cluster
- M-31: The Andromeda Galaxy
- M-45: Pleiades open star cluster
- M-57: The Ring Nebula
- Double Cluster in Perseus

As autumn continues, sunrises occur later and sunsets occur earlier. The days will get shorter all the way until the first day of winter on December 21!

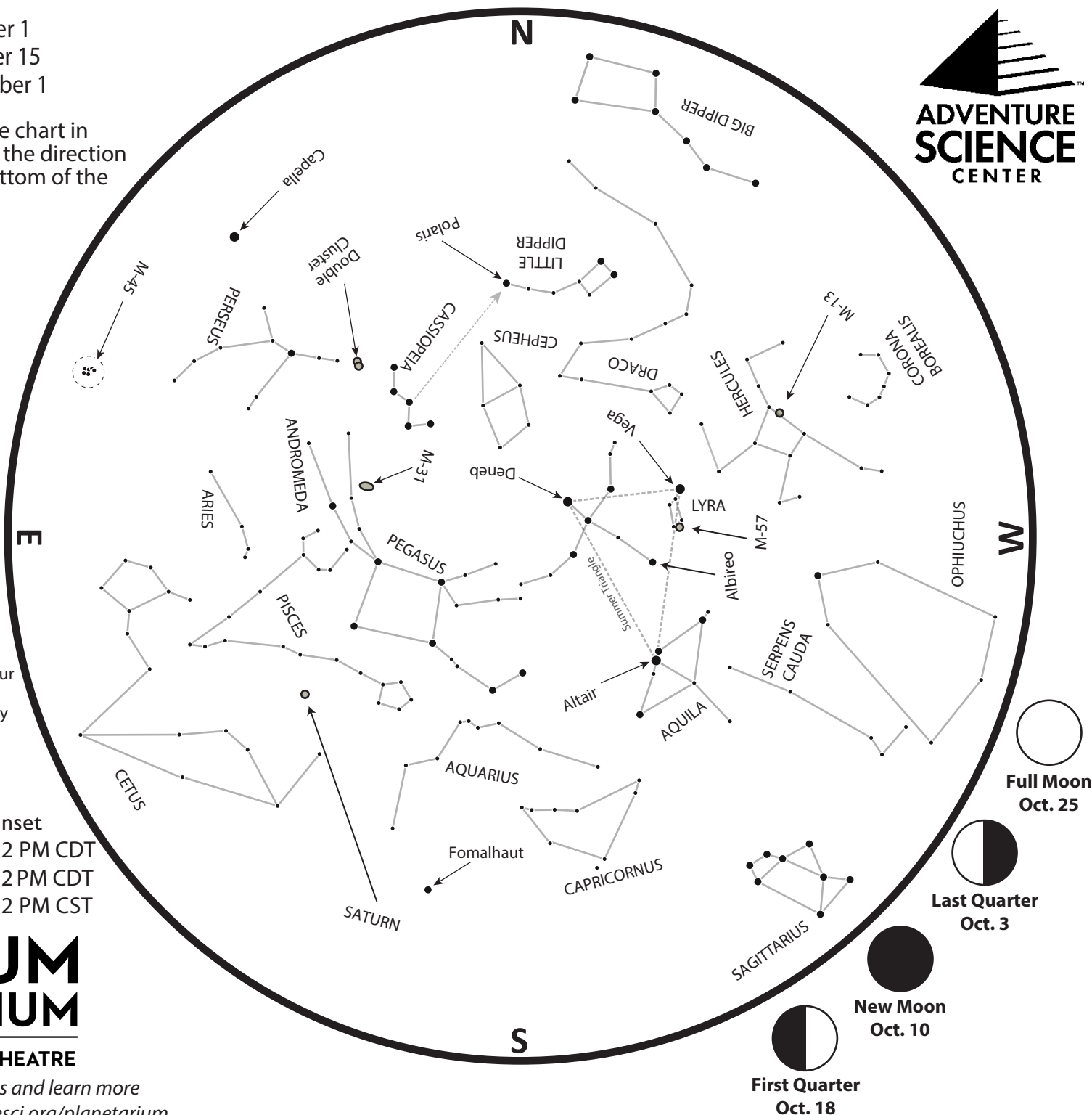
From Nashville:

	Sunrise	Sunset
Oct 1	6:42 AM CDT	6:32 PM CDT
Oct 15	6:54 AM CDT	6:12 PM CDT
Nov 1	6:10 AM CST	4:52 PM CST

SUDEKUM PLANETARIUM

JUDITH PAYNE TURNER THEATRE

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After Sunset

For much of the year, we use the stars of the **Big Dipper** to help us find **Polaris**, the **North Star**. However, the Big Dipper is harder to find in the autumn. It appears very low to the northern horizon in the early evening. Some of its stars even set below the horizon from our latitude.

Another group of stars can help us find our way. Look for a group of five stars known as **Cassiopeia the Queen**. Whenever the Big Dipper is low to the horizon, Cassiopeia will be high enough to find. The central peak of this constellation's W-shape also points you in the direction of Polaris.

Polaris is not a particularly bright star, but it does remain fixed in the sky throughout the night and throughout the year. When you face the North Star, you're facing due north. Polaris is at the end of the handle of the **Little Dipper**. This group of stars is officially known as **Ursa Minor the Little Bear**.

Next, turn your gaze high overhead for the three bright stars that make up the **Summer Triangle**. These may be the first stars you see as the sky begins to darken. Each of these stars is part of its own constellation. **Cygnus the Swan**, **Aquila the Eagle**, and **Lyra the Harp** are more easily seen under dark skies.

Wait - what's the Summer Triangle doing in the sky this time of year? The Summer Triangle gets its name because it's up all night long during the early part of summer. Now in the autumn, the triangle begins the evening high overhead, and will set shortly after midnight.

Look high in the east for **Saturn**. Saturn's beautiful rings are visible with a small telescope. Look for the Moon near Saturn on the night of October 23.

Stay up late to see perhaps the greatest constellation of the winter sky, **Orion the Hunter**, visible rising in the east at 1 am in early September, and by 11 pm near the end of the month. Orion's shoulder is marked with a brilliant red star called **Betelgeuse**.

From Dark Skies

Bright outdoor lighting can make it hard to see all but the brightest stars. On a clear night, find a dark spot far away from city lights, give your eyes time to adjust to the dark, and look for even more celestial sights. You can begin by looking for the fainter stars of this season's constellations. **Pegasus the Flying Horse**, **Andromeda the Princess**, and the three constellations of the Summer Triangle all become easier to explore.

Look closely for the star that marks the head of **Cygnus the Swan**, an unremarkable-looking white star called **Albireo**. A small telescope reveals that there are really two stars there, appearing very close to each other. Not only that, but the two stars are different colors, one blue and one yellow!

Early autumn evenings are great for spotting the **Milky Way** coursing from the southwestern horizon through the Summer Triangle and on towards Cassiopeia in the northeast. This hazy band of light is the bulk of our disc-shaped galaxy, as we see it from within.

Near Andromeda, look for **M-31**, the **Andromeda Galaxy**. This massive spiral galaxy is the most distant object visible to the unaided eye, but to find it it requires crisp, dark skies and a little patience. Binoculars or a small telescope can improve the view, but don't expect to see more than a faint, fuzzy, oval blob. If you don't feel impressed, just remind yourself you're looking at the collected light of possibly one trillion stars, all at a distance of 2 million light years away. Now that's impressive!

Early Morning

As the Earth orbits the Sun throughout the year, the constellations rise and set just a little bit earlier every day. You won't see much difference from night to night, but you will over the course of weeks or months. What we see in today's pre-dawn sky is a preview of the early evening sky in later months. Go out before dawn this month for a look ahead at the early winter night sky.

Remember how the Big Dipper was too low to easily find in the early evening? Now it's high in the northeast. Can you find Cassiopeia?

Meanwhile, Pegasus and Andromeda are beginning to set in the west. Winter constellations Orion the Hunter and **Taurus the Bull** are high in the south. Rising in the east is **Leo the Lion**, a reminder that spring is on the way.

In the pre-dawn hours, look for the red planet **Mars**. Don't confuse the red planet with the bright red stars of the morning sky, **Betelgeuse** in Orion, and **Aldebaran** in Taurus. Stars twinkle, but planets are usually steady-shining points of light. Mars will be easy to find to the east. Look for a crescent Moon near Mars on the morning of October 5th.

Meanwhile, bright **Jupiter** will approach Mars through the month. Early in October, Jupiter will rise around 3 am, and will continue to rise earlier throughout the month. As November begins, the two planets will appear very close to each other, an unmistakable pair in the morning sky.

Keep on watching into November - the Moon will be next to Mars on the morning of the 2nd. Mars and Jupiter will make their closest approach to each other on the morning of November 17th. On that morning, the pair will also appear close to the bright star **Regulus**, in Leo the Lion.

Before you set your alarm for the wee hours of the morning, consider planning out your observing. Desktop planetarium software like the free, open-source **Stellarium** (stellarium.org) can show you more precisely where night sky objects will be on any date and time, and help you plan ahead. It's a great way to learn about the night sky before you go out for a look at the real thing!

Orionid Meteor Shower

The annual **Orionid Meteor Shower** peaks on the morning of October 22. If it's clear, head away from the city lights and take some time to meteor-watch. Observe the sky either late on the 21st or pre-dawn on the 22nd. Relax, lie back, face east, and watch a wide area of the sky. Bring some friends! Most importantly, *be patient*. Under ideal dark-sky conditions, there may only be 10-20 meteors per hour. Meteor showers are almost always best after midnight.

This year a bright Moon may hide all but the brightest meteors, but it will set at about 3am, leaving us with a couple hours of extra dark skies before morning twilight.

Meteors may appear anywhere in the sky, but these will appear to be moving in a direction away from the constellation Orion. Some Orionid meteors can appear a few weeks before or after the peak, at lower rates.

Meteors from the Orionid shower consist of debris left behind by that most famous comet, **Comet Halley**. Every year, Earth passes through this trail of tiny particles. These particles burn up as they fall through our atmosphere, resulting in the distinctive swift streaks of light we call meteors, or 'shooting stars.'

Watch the Clock

At 2:00 am on Sunday morning, November 1, most of the United States will be asleep as we "fall back" from **Daylight Saving to Standard Time**. Don't forget to set your clocks back by one hour before bedtime!

This month in the Sudekum Planetarium
Judith Payne Turner Theatre

NIGHTWATCH
EXPLORE
THE
INCOMING! STELLARS
MISSION: GREEN