

10:00 pm on August 1
9:00 pm on August 15
8:00 pm on September 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-6: The Butterfly Cluster
M-7: Open star cluster
M-8: The Lagoon Nebula
M-13: Globular star cluster
M-15: Globular star cluster
M-22: Globular star cluster
M-27: Dumbbell Nebula
M-31: The Andromeda Galaxy

Autumn is coming! The days are getting shorter and the nights longer. The autumn equinox is on September 22. On this date, the Sun rises due east and sets due west.

Saturn rises after 11 pm early in the month and by 9 pm as September begins.

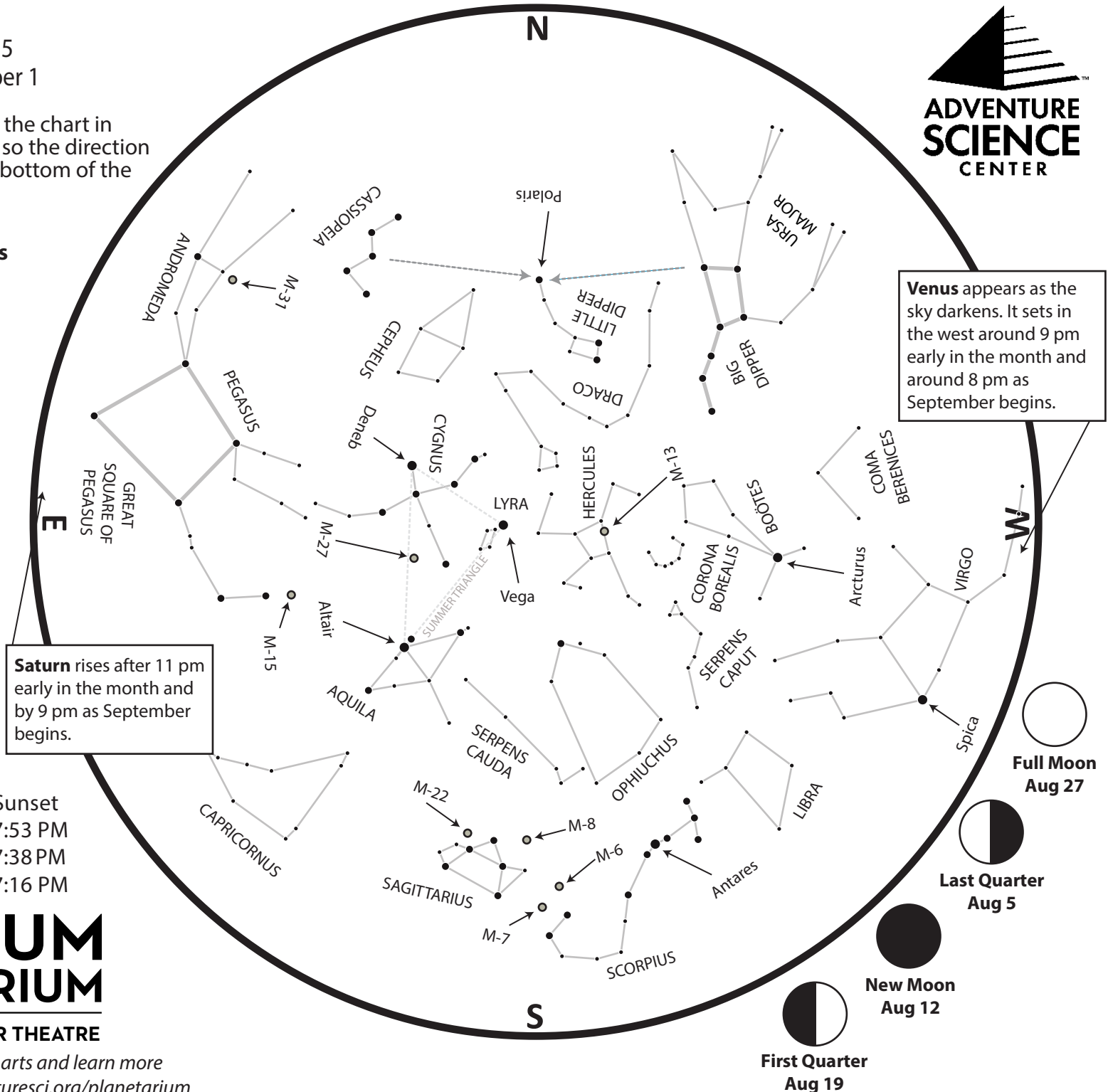
From Nashville:

	Sunrise	Sunset
Aug 1	5:54 AM	7:53 PM
Aug 15	6:05 AM	7:38 PM
Sept 1	6:18 AM	7:16 PM

SUDEKUM PLANETARIUM

JUDITH PAYNE TURNER THEATRE

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AUGUST 2026

After Sunset

Look to the west as the sky begins to darken for the brilliant planet **Venus**, which may be the first bright point of light you'll see. Venus will remain low in the west after sunset through the summer, but will soon be lost in the Sun's glow as autumn begins. Look for a slim crescent Moon just below and to the right of Venus on August 15.

In mid-summer, the **Big Dipper** is easy to find, high in the northwest after sunset. Connect the dots to imagine a big spoon or ladle high above.

The Big Dipper is not officially a constellation; it's what astronomers sometimes call an **asterism**. It's a familiar name for this pattern of stars, especially used by observers in the United States, but it's not one of the 88 constellations recognized by astronomers worldwide. **Ursa Major the Great Bear** is the official constellation here, but you'll need dark skies to see its fainter stars.

Use the two stars at the end of the Dipper's bowl to lead you to **Polaris**, also known as the **North Star**. 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 also officially known as **Ursa Minor the Little Bear**.

Follow the curved handle of the Big Dipper to trace an 'arc' to **Arcturus**, the orange colored star in **Boötes the Herdsman**. Then speed on to **Spica**, the single bright star in **Virgo the Maiden**. Neither of these constellations has any other bright stars. Even under dark skies away from city lights, it's hard to imagine these mythological figures just by connecting the dots.

Look nearly overhead for the three bright stars that make up the **Summer Triangle**. Viewers with darker skies might find the fainter stars that make up the three constellations of the Triangle: **Cygnus the Swan**, **Aquila the Eagle**, and **Lyra the Harp**.

Low in the south is the hook-shaped constellation **Scorpius the Scorpion**. The red star **Antares** marks the heart of the scorpion. This star's name means 'rival of Mars', as its red color nearly matches that of the 'red planet.'

Just to the east of Scorpius is **Sagittarius the Archer**. To ancient civilizations it may have looked like a mythical centaur holding a bow and arrow, but to modern stargazers it looks a lot more like a teapot.

Stay out a little late to catch **Saturn** rising to the east. Saturn rises above the horizon about 11 pm early in the month, and before 9 as September begins. Allow for an hour or two after planetrise to see it appear over buildings or trees that may block your view. Look for the Moon near Saturn on August 3 and again on August 31.

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.

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

As you look towards **Scorpius** and **Sagittarius**, you are looking in the direction of the dense center of the Milky Way Galaxy. Scan with binoculars or a telescope in this area to find many faint star clusters and nebulae throughout this part of the sky.

Rising in the northeast is a completely separate galaxy, the **Andromeda Galaxy**, also known as **M-31**. At two million light years away, it's the most distant object you can see without a telescope, but you have to have pristinely dark skies and pretty good eyesight to spot it. Try using binoculars or a telescope first. M-31 is a spiral galaxy even larger than our own Milky Way.

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 late autumn night sky.

In the hours before dawn, the Summer Triangle is beginning to set. Autumn constellations such as **Pegasus the Flying Horse** are high in the west. Winter constellation **Orion the Hunter** is just rising in the east.

Perseid Meteor Shower

The annual **Perseid Meteor Shower** peaks on the night of August 12. If it's clear, head away from the city lights and take some time to meteor-watch.

Find a comfortable, safe spot to observe the sky late on the 12th or pre-dawn on the 13th. Relax, lie back, face east, and watch a wide area of the sky. Bring some friends! Most importantly, be patient. Even under ideal dark-sky conditions, there may only be one or two meteors per minute on average. That's still a lot more than most nights when there's not a meteor shower. A bright Moon can sometimes outshine all but the brightest meteors, but this year's Persids peak during a New Moon, meaning it won't brighten the sky at all.

Meteors may appear anywhere in the sky, but they will appear to be moving in a direction away from the constellation **Perseus**. Some Perseid meteors can appear up to a week or two before or after the peak, at lower rates. If the weather doesn't cooperate, try a clear morning shortly after the peak.

Meteors from the Perseid shower consist of debris left behind by **Comet Swift-Tuttle**. 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.'

Partial Lunar Eclipse: August 27-28

On the night of August 27, the Moon will slip into the shadow of the Earth in a **partial lunar eclipse**. This eclipse is almost but not quite total: 96% of the Moon's will face will be darkened by Earth's shadow. All of North and South America, Africa, and most of Europe will be able to see the eclipse in its entirety. The Moon will be high in the south for us in Nashville.

Partial eclipse begins: 9:33 pm CDT

Maximum eclipse: 11:12 pm CDT

Partial eclipse ends: 12:51 am CDT August 28

Please note: You may see media that list the eclipse as starting at 8:23 pm. This is the beginning of the **penumbral eclipse**, which is when the very faint outer shadow of the Earth begins to fall on the Moon. A penumbral eclipse is barely noticeable at all. The darker, more easily visible **umbral eclipse** begins to cross the Moon's face at 9:33 pm.

A lunar eclipse occurs when the Moon passes through Earth's shadow. As the eclipse progresses towards maximum, more and more of Earth's shadow will fall on the lunar surface, and the Moon may appear to change color to a coppery orange or deep red. This is caused by sunlight scattering through Earth's atmosphere. The exact color is affected by atmospheric conditions such as recent volcanic eruptions on Earth.

Lunar eclipses are perfectly safe to view, and you don't need any special equipment. All you really need to enjoy a lunar eclipse are your eyes and clear weather. You don't even have to watch the whole thing- just go out for a look, even if just for a few minutes.

**This month in the Sudekum Planetarium
Judith Payne Turner Theatre**

NIGHTWATCH

THE POWERHOUSES OF THE UNIVERSE

STARS

NARRATED BY MARK HAMILL

**TO WORLDS
BEYOND**
JOURNEY THROUGH THE SOLAR SYSTEM

**THE
STELLARS**
MISSION: GREEN