

# MAY 2019

11:00 pm on May 1  
 10:00 pm on May 15  
 9:00 pm on June 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: The Hercules Cluster
- M-44: The Beehive Cluster

It's spring! The days have been getting longer ever since the first day of winter, and will continue to lengthen until the first day of summer, June 20.

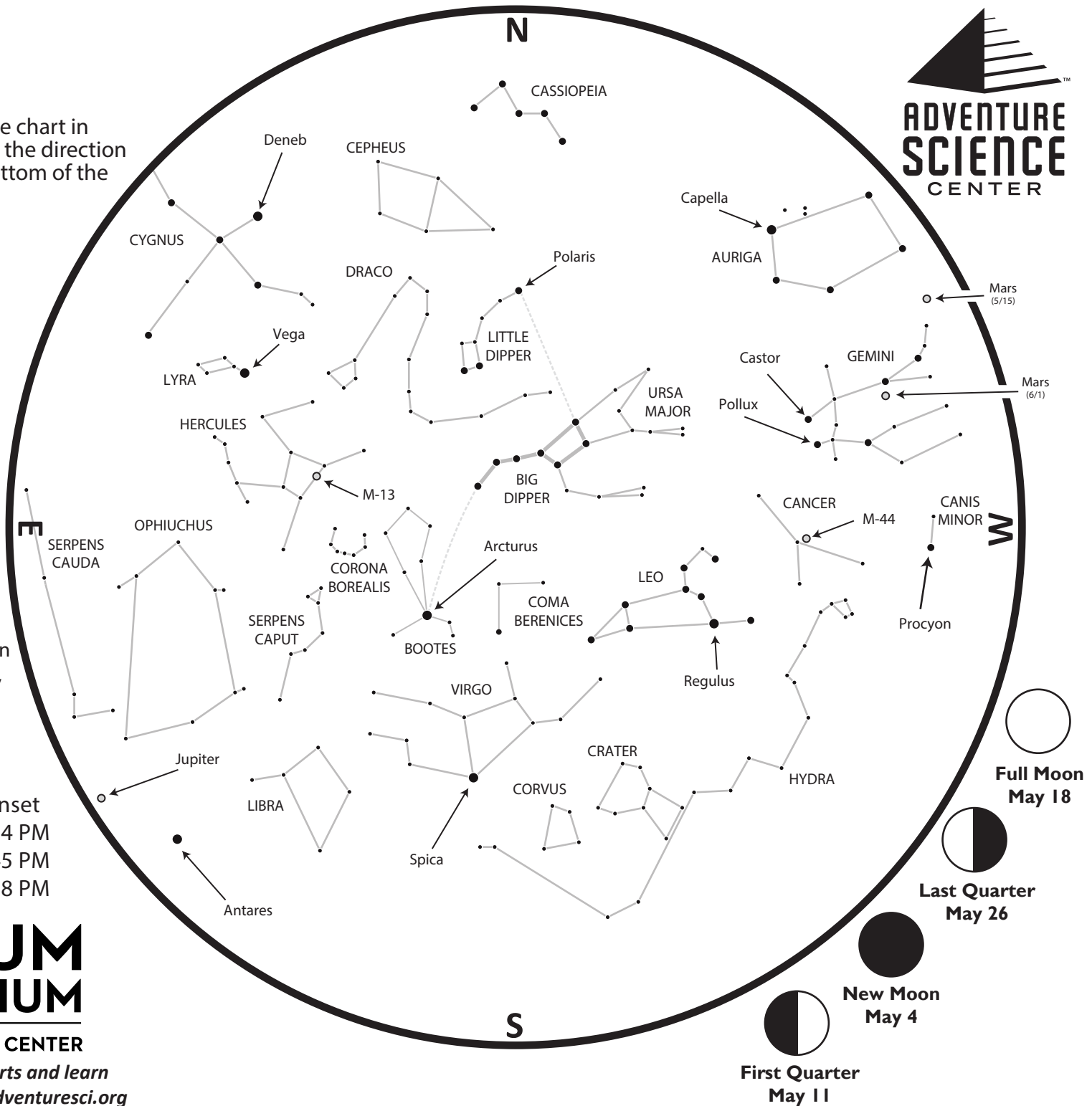
From Nashville:

	Sunrise	Sunset
May 1	5:55 AM	7:34 PM
May 15	5:42 AM	7:45 PM
June 1	5:32 AM	7:58 PM

## SUDEKUM PLANETARIUM

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Download monthly star charts and learn more about our shows at [adventuresci.org](http://adventuresci.org)



Full Moon  
May 18

Last Quarter  
May 26

New Moon  
May 4

First Quarter  
May 11

## After Sunset

Look high in the north for the **Big Dipper**. As famous as the Dipper is, it's not always easily visible from our latitude in Tennessee. During the autumn, it stays hidden near the northern horizon, only to emerge in the wee hours of the morning. But in the spring, the Dipper is easy to find, high in the northwest after sunset.

The Big Dipper is not officially a constellation; it's what astronomers sometimes call an **asterism**. The Big Dipper is a familiar name for this pattern of stars, especially known to 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**.

Imagine poking a hole in the bottom of the Dipper to let the water drip out. The water falls onto the back of **Leo the Lion**. The head and mane of the lion are represented by a group of stars that looks something like a backwards question mark. Other stargazers imagine the top hook of a coat hanger, or a sickle in this group of stars. The "dot" at the bottom of the question mark is **Regulus**, the brightest star in Leo. It represents the regal heart of the lion.

Go back to the Big Dipper once more and follow its curved handle 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.

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Look low in the west for **Mars**. The red planet has dimmed significantly since its bright appearance during the winter, and is setting earlier every evening. By July it will be lost in the glow of sunset. Look for a thin crescent **Moon** near Mars on May 7th.

To the southeast, giant planet **Jupiter** rises late in the evening, after 11pm at the beginning of the month, and after 9pm as June begins. Wait an hour or two for it to rise above hills, trees, or other obstacles that may block it from view. If you have binoculars, you will be able to see up to four of the Jupiter's largest moons. Watch them over several nights to watch them orbit around their parent planet. If you have trouble steadying your binocular view on Jupiter, try leaning them up against the side of a building or another steady surface.

A small telescope not only shows the moons of Jupiter, but also its cloud bands. Jupiter has stripes! Look for our own Moon near Jupiter on May 19.

Look to the east for the constellation **Hercules** and the globular cluster known as **M-13**. Using binoculars, you may be able to spot a round-shaped glow. If that blurry glow doesn't seem impressive, just remember that it's a collection of around 300,000 stars, at a distance of over 22,000 light years, at an age of over 11 billion years old.

## A Look Ahead

As 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 summer evening sky.

By morning, most of our springtime constellations have set in the west. High overhead are the three bright stars that make up the **Summer Triangle**. To the south is the J-shaped **Scorpius the Scorpion**, with the red star **Antares**.

Look high in the south for Jupiter and **Saturn**. Jupiter is the brighter of the two, and appears to the right of Saturn, closer to **Scorpius**. As the weeks progress, Jupiter and Saturn will rise earlier and earlier, on their way to becoming a great evening sight during the summer.

Desktop planetarium software like the free, open-source **Stellarium** ([stellarium.org](http://stellarium.org)) can show you more precisely where night sky objects will be on any date and time, and help you plan your observing.

## 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.

Look between the constellations **Leo** and **Gemini the Twins** to find... nothing? Even under dark skies you'll have to look closely to spot the famous but faint constellation **Cancer the Crab**, shaped like an upside-down letter Y. Near the center of the Y is **M-44**, the **Beehive Cluster**. This **open star cluster** is a great target for binoculars.

A different kind of star cluster is visible through binoculars in the constellation **Hercules**. **M-13** is a **globular star cluster** composed of hundreds of thousands of very old stars, orbiting around our galaxy.

Globular clusters are older, much further away, and have many more stars than open clusters.

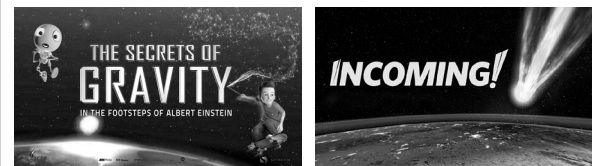
Don't have a telescope? Don't know where to find dark skies? The next free public star party hosted by the **Barnard-Seyfert Astronomical Society** is scheduled for Saturday, May 11 from 9:00 to 11:00 at **Long Hunter State Park**. Come observe the Moon, star clusters, and more through telescopes provided by BSAS members.

Visit the BSAS web site at [bsasnashville.com](http://bsasnashville.com) for details. If the weather is bad, the star party will be canceled. Make sure to check their web site for updates before making the trip to a star party, especially if the weather is iffy. On the BSAS web site you'll also find driving directions and a list of future events.

## This Month in the Sudekum Planetarium

### May 11: Second Saturday

- 4:30pm Michael Jackson
- 5:30pm Laser Stranger Things
- 6:30pm Dance Dome
- 7:30pm Queen
- 8:30pm Queen: Heaven



Full schedule at  
[adventuresci.org/sudekum-planetarium](http://adventuresci.org/sudekum-planetarium)