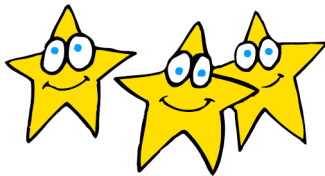


A Typical Saturday Evening Public Viewing Session

- *Lecture about the featured object or topic.* This 20- to 30-minute presentation, held in the SGNC picnic shelter, includes images of and details about the featured sky object or topic as well as information about other interesting objects that might be viewed that evening.
- *Sky tour using a laser pointer.* After our lecture, we step out under the stars to point out the major constellations and planets, and to designate the location of the featured celestial object for the evening if appropriate.
- *Telescope viewing session.* We use a variety of telescopes at ground level to observe the wonders of the heavens. The Sugar Grove and Prairie Sky Observatories will both be open. Visit them to see what's happening inside.

Things to Know

- Programs will be held even if the sky is overcast; active rain, however, will cause a cancellation of the event. On cloudy evenings, the presentation will be given and tours of the Sugar Grove and/or Prairie Sky observatories will be available. Additionally, various images taken by TCAA astrophotographers will be shared via computer display in one of the observatories.
- Please dress very warmly during cooler months. These are outdoor events; none of the buildings we use are heated.
- Please be very careful when driving into and out of the Sugar Grove Nature Center parking lot. At all times there are people, including small children, walking from place to place in the dark. Please park so that your vehicle's headlights are aimed away from the telescopes.
- You may bring along a flashlight if you wish, but be certain to cover the lens with a red filter so that observers' dark adaptation isn't adversely affected. Please aim your flashlight at the ground only. Also, please leave pets at home.



TCAA – Serving the Bloomington-Normal Community Since 1960

<https://tcaa.club/>

2023

FAMILY FRIENDLY PUBLIC VIEWING SESSIONS



AT SUGAR GROVE NATURE CENTER

TCAA PUBLIC VIEWING SESSIONS FOR 2023

<u>Date (Sat.)</u>	<u>Time</u>	<u>Sunset</u>
▪ April 22	8:00 PM ~ 10:00 PM	7:43 PM CDT
▪ May 20	8:30 PM ~ 10:30 PM	8:10 PM CDT
▪ June 17	9:00 PM ~ 11:00 PM	8:30 PM CDT
▪ July 15	8:30 PM ~ 10:30 PM	8:26 PM CDT
▪ August 19	8:30 PM ~ 10:30 PM	7:48 PM CDT
▪ September 16	7:30 PM ~ 9:30 PM	7:04 PM CDT
▪ October 14	7:00 PM ~ 9:00 PM	6:18 PM CDT

All events subject to cancellation due to active rain. Confirm an evening's event before driving long distances. If you are uncertain if a session will be held, check for updates on *Facebook* (TCAA) or phone (309) 830-4085 after 6PM.

If you are unfamiliar with Sugar Grove Nature Center, we suggest that you arrive early. Our location is dark at night as there are no lights. Also, it takes about 20 minutes for your eyes to adapt to the dark conditions.

Directions to Sugar Grove Nature Center

Use your phone to scan the QR code below for driving directions.



Featured Sky Object or Topic by Month

April - Copernican Revolution: For thousands of years, humans believed that the Earth was at the center of the universe. Nicholas Copernicus was one of the first astronomers who dared to publish his ideas challenging this age-old belief. His work brought a revolutionary change from the ancient Ptolemaic Earth-centered model to a Sun-centered model of the solar system.

May - Astronomical Spectroscopy: Human eyes can see stars only through a small window called the “visible spectrum.” But stars emit light in a much wider range of wavelengths known as the electromagnetic spectrum. Examining light in these different wavelengths through spectroscopes can tell us many things about stars, including their temperature, distance, radial velocity, and chemical composition.

June - The DART Mission: DART (Double Asteroid Redirection Test) is a space mission of NASA whose aim is to test a method of planetary defense against near-Earth objects. DART spacecraft intentionally collided with its target, Dimorphos, on September 26, 2022, making humanity's first successful attempt to change the trajectory of another astronomical body.

July - The Red Planet: Mars is called the red planet because of its bright rust color from iron-rich minerals on its surface. This little red rock is home to the highest mountain, deepest and longest valley, and the largest volcano in our solar system. This fascinating world is among the most well studied objects within our solar system.

August - Supernovas: A supernova is an explosion of a high-mass star when it reaches the end of its life. They are so powerful and bright that they can briefly outshine entire galaxies and radiate more energy than our Sun will in its lifetime. Understanding supernovas is the key to unlocking many mysteries about our universe, including the Big Bang theory, black holes, and dark energy.

September - Solar Eclipses: The Sun is about 400 times bigger than the Moon. But it is also about 400 times farther away than the Moon. This re-markable coincidence is the reason why we have spectacular solar eclipses. Besides being beautiful, they are also instrumental. For instance, they provided the basis for the first confirmation of Einstein's General Theory of Relativity.

October - Asteroids: Asteroids are rocky, airless remnants left over from the early formation of our solar system about 4.6 billion years ago. There are currently over one million asteroids in our solar system, most of which orbit between Mars and Jupiter. Being the fossils of our solar system, they carry valuable information about the origin of our solar system and how life evolved on Earth.