Welcome Winter! This time of year is usually good for night sky observing – with clear skies and more stable air. However, even the die-hard astronomy enthusiasts have been thwarted by our recent extreme temperatures! Once it gets warm enough to venture outdoors, look for Mars, Jupiter, and Saturn all together in the eastern sky just before sunrise. In the meantime, the stars are always out and it’s always warm in the planetarium. We look forward to seeing you under the dome!

“*We are, therefore, made out of star stuff... we feed upon sunbeams, we are kept warm by the radiation of the Sun, and we are made out of the same materials that constitute the stars.*

- Harlow Shapley

**Remaining Live Shows for the 2017-2018 Season**

**January 26, 2018** – Astronomy on the Internet: The Good, the Bad, and the Ugly

**February 23, 2018** – The Final Frontier

**March 23, 2018** – Fire in the Sky

**April 20, 2018** – Citizen Science

Movie shows are also scheduled for many Fridays this spring.

A list of show dates can be found on our website as well as descriptions of the various movies. A short sky tour is given before each movie presentation. All shows start promptly at 7:00pm.
Special Events

We try to always have something new and different going on at the Mather Planetarium. This spring we have two events already on the calendar. Below are some details and we’ll be sure to send out e-mail updates of any other additions to the calendar.

Homeschool Event

On Friday, February 2nd, we’re teaming up with the American Helicopter Museum and Education Center to offer a special day for homeschoolers.

For $10 visitors will get admission to both venues. There will be three planetarium presentations, all with similar content but geared toward different age groups: 9am (elementary), 10:30am (middle school), and noon (high school). The Helicopter Museum will be running programs throughout the day, from 10am to 4pm. All of the programs meet the PA Department of Education standards for STEM education. Pre-registration is required. Families can register by calling the Helicopter Museum at (610) 436-9600 or e-mailing Paul Kahan at pkahan@americanhelicopter.museum.

Visitors are welcome to bring their own lunch to the museum. Between helicopters and stars, there’s so much to learn up in the sky!

Here Comes the Sun

Would you like to know more about the Sun and how solar energy works? What does it really take to power your home with solar energy? On Wednesday, April 11, Dr. Gary Schmidt (Univ. of Arizona professor of Astronomy, retired) will be sharing his own experiences with solar energy in “Power to the People: Living off Solar Energy”. Aimed at the layperson, Dr. Schmidt’s talk will cover the necessary basics of solar energy as well as provide a detailed look at the house he built in Arizona which is completely off-grid. There will be a short presentation on the dome after Dr. Schmidt’s talk. While we never prohibit parents from bringing children to the planetarium, this presentation is geared toward adult audiences. The event, which starts at 7:30pm, is free but registration is required. A registration link will be provided on our website soon.

Check our special events webpage to find out what’s going on under the dome. We anticipate a couple more special lectures in the fall so stay tuned!

The programs in the Mather Planetarium are made possible by generous donations from the community. To learn more about how you can support our educational and public activities please contact Dr. Karen Schwarz at (610) 436-2788, kschwarz@wcupa.edu.
Looking Up: Gemini

While Orion dominates the winter sky, Gemini is a prominent constellation that’s nearly as easy to find. It’s distinguished by the two bright stars Castor and Pollux – the names of the twin Gemini brothers.

In Greek mythology, Castor and Pollux were twins born to Leda, Queen of Sparta. Leda was impregnated on the same night by both her husband and the god Zeus. So while the boys shared a mother, they had different fathers. Pollux was the son of Zeus; Castor the son of King Tyndarus. Both boys were exceptional in their own right - Castor was known for his skill with horses while Pollux had great strength.

The twins show up in several famous Greek tales. The brothers joined Jason and the Argonauts in their search for the Golden Fleece. Their sister was the beautiful Helen of Troy, which lead them to fighting in the Trojan War in an effort to bring their sister home.

As seen in the above picture, the two bright stars in the constellation Gemini bear the names of the brothers, with each star marking the appropriate man’s head.

Being the son of a god, Pollux was immortal. Castor, while a prince, was mortal. When Castor died Pollux was heartbroken. Pollux begged Zeus to allow him to remain with his brother. Zeus honored the request by placing the brothers in the sky together forever.

Gemini is the apparent source of the Geminid meteor shower that peaks December 13-14. The meteors originate from the object 3200 Phaethon - an asteroid which is mostly likely an extinct comet. As it travels through the solar system, 3200 Phaethon leaves behind tiny bits of debris. Every December, as the Earth orbits the Sun, we pass through this debris trail, causing the annual meteor shower. While the Geminids have recently come and gone, we look forward to other meteor showers this year – perhaps in warmer weather!