

astronomical calendar

BUHL PLANETARIUM & OBSERVATORY

spring
2018

March 19
8:15 pm



MARCH 2018

1	Th	○	Full Moon (Worm Moon) — 7:51 pm
5	Mon		Mercury 1.5 degrees north of Venus (Look west after sunset)
7	Wed		Jupiter 2 degrees below Moon (Look south in the am)
9	Fri	☾	Last Quarter Moon — 6:19 am
10	Sat		Mars 5 degrees right of Moon (Look southeast in the am)
11	Sun		Daylight Savings Time begins at 2 am (Turn clocks ahead one hour)
15	Th		Mercury at greatest elongation (Look west after sunset)
17	Sat	●	New Moon — 9:11 am
19	Mon		Venus 3 degrees lower left of Mercury (Look west after sunset)
20	Tue		Vernal Equinox. Spring begins — 12:15 pm
24	Sat	☾	First Quarter Moon — 11:35 am
31	Sat	○	Full Moon (Blue Moon) — 8:36 am

April 7
6:00 am



APRIL 2018

2	Mon		Mars 1 degree south of Saturn (Look southeast in the am)
3	Tu		Jupiter 4 degrees below moon (Look south in the am)
7	Sat		Saturn and Mars below moon (Look south-southeast in am)
8	Sun	☾	Last Quarter Moon — 3:17 am
15	Sun	●	New Moon — 9:57 pm
17	Tu		Venus 4 degrees upper right of crescent moon (Look west dusk)
22	Sun	☾	First Quarter Moon — 5:45 pm Lyrid Meteor Shower peaks — overnight until dawn on April 23
29	Sun	○	Full Moon (Pink Moon) — 8:58 pm
30	Mon		Jupiter 5 degrees left of moon (Look southwest in the am)

May 17
9:30 pm

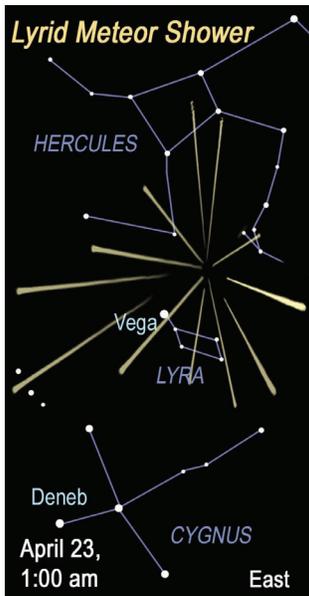


MAY 2018

4	Fri		Saturn 4 degrees left of Moon (Look south in am)
5	Sat		Eta Aquarid Meteor Shower Peaks — Overnight until dawn on May 6
6	Sun		Mars 1 degree below Moon (Look south-southeast in am)
7	Mon	☾	Last Quarter Moon — 10:08 pm
9	Wed		Jupiter at opposition (Look east in the pm)
15	Tue	●	New Moon — 7:47 am
17	Th		Venus 5 degrees right of crescent moon (Look west-northwest dusk)
21	Mon	☾	First Quarter Moon — 11:49 pm
27	Sun		Jupiter 8 degrees below Moon (Look south in pm)
29	Tue	○	Full Moon (Flower Moon) — 10:19 am

Spring Planet Visibilities

March	Morning:	Saturn and Mars (SE) Jupiter (S)
	Early Evening:	Mercury and Venus (W)
April	Morning:	Mars and Saturn (S)
	Midnight:	Jupiter (SE)
	Evening:	Venus (W) dusk
May	Morning:	Mars and Saturn (S) Mercury (E) dawn
	Evening:	Jupiter (SE) Venus (WNW) dusk



Lyrid Meteor Shower

The lull in meteor activity will end this spring with the arrival of the Lyrid meteor shower in April. The Lyrids will peak this year overnight on April 22 and until dawn on April 23. Lyrid meteors can be seen anytime after midnight when the constellation Lyra is well above the horizon. The best time to look is from about 1 am to dawn. At that point, the local sky is pointing directly into the meteoroid debris stream and observers can view one or two shooting stars every few minutes. The waning crescent moon will not interfere with this year's display.

To enjoy the Lyrid meteor shower, look toward the northeast and observe from a location that is as dark as possible and which allows you to see a large portion of the sky. The higher Lyra and its

bright star Vega climb into the sky, the more meteors you are likely to see. Meteors can appear in any part of the sky, although their trails will tend to point back toward the radiant near the constellation of Lyra.

Space Out! Astronomy Weekend:

Saturday and Sunday, March 10–11: Join the staff of Carnegie Science Center's Buhl Planetarium and the Amateur Astronomers Association of Pittsburgh on March 10 and 11 for Space Out! Astronomy Weekend. At this two-day celebration of all things astronomical, you can get a close-up look at meteorites and moon rocks, check out the latest and greatest telescopes, discover how to navigate the stars, and hear about astronomical news from astronomers and other scientists.

Science Fact:

There are two Full Moons in both January and March this year. This event is sometimes called a Double Blue Moon. The next time there are two Blue Moons in a calendar year will be 2037.

OBSERVATORY SkyWatch Join stargazers rain or shine for SkyWatch.

\$4 for non-members/\$2 for members and as an add-on to general admission.

For dates and details visit CarnegieScienceCenter.org/planetarium.

Presented by: 

Wonders of the Daytime Sky

The daytime sky can be filled with unexpected surprises. Breathtaking optical displays of colorful rings, arcs, pillars and patches of light called sundogs or "mock Suns" are plainly visible to anyone who thinks to look up. The formula for these daytime displays is cirrus clouds plus bright sunlight. Cirrus clouds are made of millions of hexagonal (six-sided) ice crystals three to six miles high in the troposphere where jets fly. Each crystal acts like a tiny prism, bending the sun's light. Because the upper troposphere is almost always below freezing, ice-crystal displays can be seen year-round. However, the best displays in the United States occur when the sun is low, and in the fall, winter and spring. That is when the northern jet stream descends southward, drawing Arctic air masses with their treasure of jewel-like ice prisms.

Every ice crystal display is as different as the patterns seen through a kaleidoscope. Displays depend on the tilt of the ice crystals and the altitude of the sun. They depend on whether the ice crystals are flat plates or long columns. The displays also will vary on the size of the crystals and their optical quality. Crystals too tiny or imperfect can't act as prisms. But if the crystals are of exceptional gem-like quality, the entire dome of the daytime sky may be filled with exotic halos, loops, arcs or crosses glowing overhead. Just remember a simple rule of thumb to experience these dazzling displays: "whenever Sun and clouds are together in the sky, look up!"

Our Stunning Evening Stars

After emerging from the glare of the Sun in February, Venus can now be seen as our dazzling bright "evening star" in the western sky. Stargazers can view Venus until October before it returns to the neighborhood of the sun and emerges in the morning sky by mid-November. Our sister planet will reach its highest altitude above the horizon in May, sink toward the horizon during the summer, but reach its greatest brilliancy in September.

Look for Venus on March 19 about 7 degrees above the western horizon and 3 degrees to the lower left of Mercury, 45 minutes after sunset. Venus will have climbed to about 20 degrees above the west-northwestern horizon by the end of May.

Jupiter, which began the year in the morning sky in Libra can be seen shortly after 10 pm in the southeastern sky by mid-April. The Jovian giant will go into opposition on May 9 and shine at a stunning -2.5 magnitude.