

### Spring, 2019

Happy spring, everyone! Doesn't it feel good to say that after the winter we've had! Even as this issue is being sent, temperatures are still chilly. What better way to watch the stars than from the climate-controlled comfort of a planetarium seat? It will be a busy spring for the planetarium staff as the teachers have begun calling about field trips, the search for a new director continues, and we have the anniversary of the Apollo 11 Moon mission coming up this summer. Welcome to our new members! We have had 27 new members since our last issue of the newsletter! That's the most we've had since the Galaxy Club started! We hope you'll use your Galaxy Club punch card to visit us!

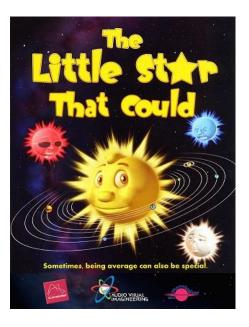
Clear skies,

The staff of the Staerkel Planetarium

Visit Our Website

#### Summer matinees coming!

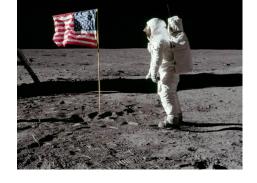
Those of you who take in our summer matinees will notice a change to this summer's schedule to accommodate the director's retirement and one-less-person performing public programs. Instead of Tuesday afternoon programs, all summer matinees in June and July will be on Thursdays with programs at 10am and 11am then again at 1pm and 2pm (and we are closed July 4th). As in the past, we'll temporarily suspend Saturday programming for those two months, though we'll still be open Friday nights. Look for "The Little Star That Could" along with "Coyote Explores the Earth, Moon & Sun" this summer.



## **Apollo 11 Anniversary this Summer**

Can you believe it has been 50 years since people first walked on the Moon? We will celebrate the

anniversary of Apollo 11 with the return of the fulldome show "Dawn of the Space Age" in the 8pm time slot Friday nights in June and July. The actual anniversary of the Moon landing is July 20. We are also fortunate to have the "Many Inspired Steps" display appearing in our lobby. To see the steps that took us to the Moon, walk past the dome entrance towards the metal doors that lead to the rest of the college and you can't miss it. We also have a scale Model Earth and Moon hanging from the ceiling, a Moon globe with the Apollo landing sights marked and a Lego Saturn V rocket, courtesy of Nicholas, Henry,



& Jonathan Thomas-Stagg. We will also relive the final 10 minutes of the Moon landing in "Prairie Skies" this summer. Join us! If you want to know more about all of the Apollo missions, look here: <a href="https://airandspace.si.edu/explore-and-learn/topics/apollo/apollo-program">https://airandspace.si.edu/explore-and-learn/topics/apollo/apollo-program</a>. Relive the Moon adventure here: <a href="http://www.wechoosethemoon.org">https://www.wechoosethemoon.org</a> and watch the first steps on the lunar surface again here: <a href="https://www.nasa.gov/mission\_pages/apollo/apollo11.html">https://www.nasa.gov/mission\_pages/apollo/apollo11.html</a>.



## TRY THIS: Find the Site of the First Lunar Landing

Apollo 11 landed in what is called the "Sea of Tranquility" on the near side of the Moon. The "sea" is one of the Maria on the Moon, a relatively flat lava plain. Through a telescope, these darker areas almost look like lakes, hence the name Maria or "seas." They were made when lava oozed out from cracks in the Moon's surface and filled up the larger crater basins. You can see the Sea of Tranquility near first quarter Moon through full Moon. Use the map to help you.

# TRY THIS: Why Does the Moon Seem to Change Shape?

The Moon orbits our Earth every month. In fact, the word "month" comes from "moonth!" Why not start a Moon log? You could use a template like this one

(https://moon.nasa.gov/resources/12/moonobservation-journal) to draw what you see. If it's cloudy, write down "cloudy." How does the



Moon change from night to night? Notice how the Earth's rotation carries the Moon from east to west in a single night but the Moon actually moves farther east each night in its orbit. You can demonstrate to your family why the Moon's appearance changes using a 4-6" Styrofoam ball on a pencil. You are the Earth and the ball is the Moon. Ask mom or dad if you can take the shade off a lamp in your house - this will be your Sun. If you stand facing the lamp, hold up the Styrofoam ball by the stick so it's nearly in-line with the lamp's light bulb. Convince yourself that the Moon is still lit but you can't see any of the lighted side - this is a "New Moon." Holding the ball in front of you, move the ball to the left of the Sun and look for a crescent Moon. Keep moving the Moon around you to locate some of the other phases. Can you find the full Moon?

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## DO THIS: Apollo Word Search

See if you can find and circle the following words in the puzzle: bolts, craters, hatch, gauges, ignite, orbit, plains, stories, valve, Velcro

#### **Celebrate Dark Skies in June**

Last year the Middle Fork River Forest Preserve was awarded Dark Sky Park status, the first such park in the state of Illinois. Join us in celebrating this great feat on June 1 at the park. There will be an official proclamation, some informational talks, activities for the kids, food trucks, and telescopes to check out the wonders of the spring sky. As this issue is being distributed the exact details have not been released but the date is firm.



#### **Space Suit Tour this Summer**

With the 50th anniversary of the Apollo 11 Moon landing coming up this summer, there has been increased interest from libraries in our traveling space suit program. It is interesting that, in the 30 year lifespan of the one-hour outreach program, we've never gone to Indiana. That changes this summer. Already programs have been scheduled in the following spots:

- May 29 (1pm) Vermillion Public Library, Newport, Indiana
- June 5 (11am) Attica Public Library, Attica, IN
- June 12 (1pm) Chatham Public Library, Chatham, IL
- June 13 (9:30am) Mattoon Public Library, Mattoon, IL
- June 14 (10am) Rockville Public Library, Rockville, IN
- June 14 (2pm) Terre Haute Public Library, Terre Haute, IN
- June 19 (11am) Covington Public Library, Covington, IN
- June 19 (1pm) Veedersburg Public Library, Veedersburg, IN
- July 18 (4pm) Tolono Public Library, Tolono, IL

### Author Alice McGinty to sign her new book!

On Saturday, May 18, noted local author Alice McGinty will visit the lobby of the Staerkel Planetarium signing her new children's book entitled "The Girl Who Named Pluto: The Story of Venetia Burney." She'll be in the lobby from 6-8pm. At 7pm, the planetarium will show "In My Backyard." McGinty is the author of over 40 children's books.



## **Scout Badge Workshops in the Dome**

The planetarium will host Girl Scout and Boy Scout workshops this spring. On April 9 and April 16, the planetarium will go through the requirements for the new "Adventurer" badge for





Brownies. The sessions run from 7-8:30pm and the cost is \$4 per scout. Boy Scout "Astronomy" merit badge sessions will occur from 7-9:30pm on May 14 and May 22 and the cost is \$5 per scout. Advance registration for all four sessions is required. See the planetarium web site (<a href="http://www.parkland.edu/planetarium">http://www.parkland.edu/planetarium</a>) and go to "special events" for more information and registration.



## New: Women in Science Posters!

Check out these new posters depicting famous women in science and their discoveries. Why not print one or more? See them all at: <a href="https://www.amightygirl.com/blog?p=23086">https://www.amightygirl.com/blog?p=23086</a>.

#### **Science Fun from NISE**

The National Information STEM Education Network (NISE) has sent the planetarium a box of goodies! Included in the kit are outreach



materials that can be done with families, such as fun with filters, and the expanding universe game, a way to safely observe the Sun, and several others. We will definitely take the materials to "Market at the Square" at Lincoln Square Mall on May 11 from 8-noon and at the Champaign Public Library on May 12 from noon to 2pm. Stop by if you're

in the area!



#### **Spring Planets**

Spring, otherwise known as the "vernal equinox," begins at 4:58pm CDT on March 20 this year. And not a moment too soon! We begin spring with Mars as the only planet in our evening sky. But Mars is clear across the solar system from us. Last July it was just over 35 million miles from us but now it's over 145 million miles away. Truth be told it isn't

impressive through a telescope. Mars attempts to stay ahead of the Sun but its set time gets earlier and earlier, from just after 11:30pm (CDT) at the beginning of spring to near 10pm at the end.

In late April, Jupiter will begin to rise at midnight. Jupiter's opposition occurs on June 9, meaning the planet rises as the Sun sets and it is closest to our Earth. Look for it in the southeast, rising just after the red star Antares. Two hours after Jupiter makes an appearance, Saturn rises near the Teapot asterism of Sagittarius. Both Jupiter and Saturn will be wonderful summer objects in the south. Saturn doesn't reach opposition until July.

Elusive Mercury has its best evening view late in the season. Rising from the glare of the Sun in late May in the west-northwest, Mercury splits the horns of Taurus, the Bull, and a thin crescent Moon passes to the left of it on June 4. Look just after sunset. The Moon is near Mars the next night. You can watch Mercury approach Mars and the pair are only 0.3 degrees apart on the evening of June 18. They'll set at 10:15pm CDT. Mercury will head back towards the Sun soon after and it will be tough to see by early July.

In the morning sky you'll find Venus though it isn't very high at sunrise. In fact, Venus rises about an hour before the Sun throughout the spring, but the sunrise time gets earlier and earlier each day. Early in the season, Mercury is to the lower left of Venus but it will be difficult to spy. A lovely crescent Moon is near Venus on the mornings of April 1, May 2, and June 1 though you'll need a low, unobstructed horizon.

The CUAS Observatory will hold free public open houses (weather permitting) on April 13, May 11, and June 8. Bring the family and see the sky through a telescope. See <a href="http://www.cuas.org">http://www.cuas.org</a> for more information and directions.

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