

# Join an International Lunar Celebration

**September 6, 2018**

**Presenters: Brooks Mitchell and Vivian White**

The webinar will begin at 2:00 p.m. (MT) and will be recorded.

**While you're waiting:**

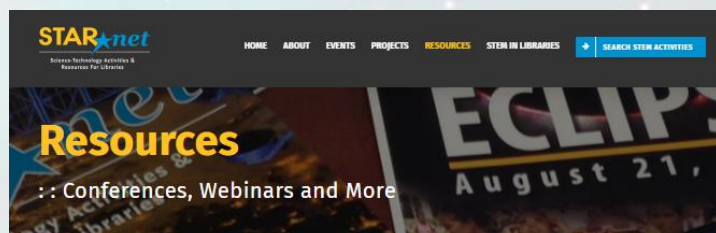
- 1) Introduce yourself in the chat box and answer our poll question
- 2) Click audio "Join by Computer" – you won't have microphone access
- 3) On the bottom toolbar, click on "Chat" and "Q&A"

# Today's Agenda

- Introduction and Reminders
- Hands-on Activity: “Crater Creations”
- Vivian White (Astronomical Society of the Pacific)
- A Quick Look at Lunar Trek
- Q&A

# Join STAR Net!

[www.starnetlibraries.org](http://www.starnetlibraries.org)



## Curated Resources For Professional Development

Building the capacity of public libraries and library staff to deliver engaging, inspirational, and educational STEM programs has the potential to transform the STEM education landscape across the country. What started in libraries some years ago as independent experiments in STEM programming has become a national STEM movement.

Across the country, libraries are redefining their roles. They're becoming primary centers of informal learning, especially STEM learning. And this critical transition is being carried out by many dedicated librarians. To help them, the STAR Library Education Network (STAR\_Net) is providing resources to support their efforts to develop new skills and provide quality STEM programming.

Collaboration is the key to transforming libraries into STEM learning centers



Conferences



Webinars



Newsletters



Online Forums



STAR\_Net Blog



2017 Solar Eclipse



Exhibition Posters



Books, Videos &  
More!



Guides, Facts &  
Tips

### Recent Blogs

> Watercraft Design

> The Dirt on Soil

> Do You Have Your Solar Eclipse  
Glasses? Great – Now Try Them Out!

### Upcoming Events

 **Discover NASA Exhibition (AZ)**  
May 3 - July 28

 **Summer Learning - Build a Better World**  
May 15 - August 31

 **Discover Tech Exhibition (CO)**  
May 31 - August 25

[View All Events](#)

Professional development  
resources, including webinars,  
newsletters, blogs, forums, videos,  
and much more!

# STEM ACTIVITY Clearinghouse

For example:  
[DIY Sun Cookies](#)

STEM Activity Clearinghouse

Search

STARnet Science-Technology Activities & Resources for Libraries

CS Cornerstones of Science awakening curiosity, enriching lives

Collections 2017 Total Solar Eclipse

ATTRIBUTES

2017 TOTAL SOLAR ECLIPSE There are 7 items.

Showing 1 - 7 of 7 items

**Content Area**

- ☐ Earth Science (0)
- ☐ Astronomy and Space (0)
- ☐ Chemistry (0)
- ☐ Physics (0)
- ☐ Engineering (0)
- ☐ Mathematics (0)
- ☐ Technology and Computing (0)
- ☐ Health Science (0)

**Age Group**

- ☐ Family (0)
- ☐ Infant (0-2) (0)
- ☐ Pre-K (0)
- ☐ Early Elementary (0)
- ☐ Upper Elementary (0)
- ☐ Tweens (9-12) (0)
- ☐ Teens (0)
- ☐ Adults (0)

**Time to Complete Activity**

- ☐ Under 10 minutes (0)
- ☐ 10-20 minutes (0)
- ☐ 20-40 minutes (0)
- ☐ 40 minutes to 1 hour (0)
- ☐ 1-2 hours (0)
- ☐ 2-4 hours (0)
- ☐ Long Duration (days to months) (0)

**How Big, How Far, How Hot, How Old?**

This is an activity about scale. Participants will arrange imagery of Earth and many other space objects in order of their size from smallest to largest, their distance from Earth's surface, their temperature from coolest to hottest, and/or their age from youngest to oldest.

[Open Activity](#) Report broken link

**Content Area**  
Earth Science  
Astronomy and Space

**Age Group**  
Family  
Upper Elementary  
Tweens (9-12)

**Time to Complete Activity**  
10-20 minutes

**Difficulty Level (by content)**  
Medium

[View Details](#)

**How Can the Little Moon Hide the Giant Sun?**

This is an activity exploring the concept that distance affects how we perceive an object's size, specifically pertaining to the size of the Sun and the Moon as seen from Earth.

[Open Activity](#) Report broken link

**Content Area**  
Earth Science  
Astronomy and Space

**Age Group**  
Early Elementary  
Upper Elementary

**Time to Complete Activity**  
40 minutes to 1 hour

**Difficulty Level (by content)**  
Easy



Like an activity and think other library staff should know how great it is? Didn't like an activity or have modifications to make it better? **Make sure to leave a review!**

# Upcoming and Archived Webinars

[www.starnetlibraries.org/resources/webinars](http://www.starnetlibraries.org/resources/webinars)

## Out-of-this-World Engineering

**Wednesday, September 26, 2018 at 4:00 p.m. (EDT), 3:00 p.m. (CDT), 2:00 p.m. (MDT), 1:00 p.m. (PDT)**

### *Past Webinars to Check Out:*

“How Your Library Can Celebrate Lights on Afterschool”

“A Universe of NASA Resources”

“The Parker Solar Probe Launch”

“NASA Partnerships in Your Own Backyard”

“International Observe the Moon Night” - 2017

# Upcoming Conferences

[www.starnetlibraries.org/resources/conferences](http://www.starnetlibraries.org/resources/conferences)

- **Association of Rural and Small Libraries (ARSL)**
  - 9/13-9/15
- **Colorado Association of Libraries (CAL)**
  - 9/13-9/15
- **Association of Science and Tech Centers (ASTC)**
  - 9/29 – 10/2
- **Young Adult Library Services Association (YALSA)**
  - 11/2 – 11/4

# InOMN Resources

Free poster to download

- <https://moon.nasa.gov/resources/173/international-observe-the-moon-night-poster/>

Register your program!

- <https://moon.nasa.gov/observe-the-moon/register/>

Upcoming InOMN Dates:

- October 20, 2018
- October 5, 2019
- September 26, 2020



A full-page background image of an astronaut in a white spacesuit standing on the lunar surface. The astronaut is facing left, with their back to the camera. To the left of the astronaut, an American flag is planted in the ground. The lunar surface is covered in dust and rocks, with several boot prints visible in the foreground. The sky is a deep black.

# What's Next?

## Universe of Stories

Summer 2019

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*NASA@ My Library* and *STAR Net* are partnering with the Collaborative Summer Library Program to support 16,000 libraries.

**Please join us!!**

# Crater Creations

[www.clearinghouse.starnetlibraries.org](http://www.clearinghouse.starnetlibraries.org)



# INTERNATIONAL OBSERVE THE MOON NIGHT AND THE NIGHT SKY NETWORK

CONNECT WITH ASTRONOMY CLUBS TO  
MAKE YOUR LUNAR CELEBRATION REALLY SHINE!

VIVIAN WHITE, ASTRONOMICAL SOCIETY OF THE PACIFIC  
[VWHITE@ASTROSOCIETY.ORG](mailto:VWHITE@ASTROSOCIETY.ORG)



It is a beautiful and wonderous sight to behold the body of the Moon...

GALILEO GALILEI, 1610

*First views of moon via telescope*



October  
SAVE THE DATE 20<sup>TH</sup>

International  
OBSERVE THE  
MOON  
NIGHT  
2018

#observethemoon

MOON.NASA.GOV/OBSERVE



# NASA NIGHT SKY NETWORK

[nightskynetwork.org](http://nightskynetwork.org)

- 420+ Astronomy Clubs across the US
- Telescopes, experts, materials
- Free hands-on activities for anyone
- Night Sky Planner – find out what's up!



Pima County Library star party  
with Tucson Amateur  
Astronomy Association

## ***Night Sky Network***

Astronomy Clubs bringing the wonders of the universe to the public



# CONNECT WITH ASTRONOMY CLUBS



Great resource for InOMN and year-round!

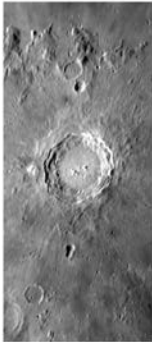
- Plan ahead – Request an event on NSN
- Indoors, outdoors, lecture or hands-on
- Working with astronomy clubs
- Library telescope program



# OUTREACH RESOURCES

[bit.ly/nsnmoonnight](http://bit.ly/nsnmoonnight)

## SKYWATCHER'S GUIDE TO THE MOON



### Impact!

The Moon's cratered surface tells a violent story. Bright areas are ancient crust that make up the highlands. Dark areas are newer regions of lava that formed after asteroid impacts.

### Copernicus

This crater (left) is easy to spot. It formed about 800 million years ago, and is 57 miles (92 km) wide. Note central peaks and terraced walls, caused by impact.

### What do you see on the Moon?

Face south and look up in the sky. Can you find the Moon?

Compare the Moon in the sky to the large Moon map below. The Moon map shows the side of the Moon that is always facing us. How much of the Moon in the sky is lit up right now? You will only see the features on the part of the Moon that is lit up.

Through a telescope, you may need to turn the map to match your view of the Moon in the eyepiece. Some telescopes will flip the image, so the Moon might look like the image to the right through a telescope.



### Aristarchus

Young crater. So bright that Sir William Herschel thought it was an active volcano.

### Kepler

Small version of Copernicus

### Grimaldi

Lava-filled crater is one of the darkest spots you can see on the Moon. It's 145 miles wide (233 km).

### Mare Humorum

The Sea of Moisture is about 220 miles (350 km) across. You can spot it with the naked eye. With a telescope, you might notice two craters along its edge.

### Tycho

Young crater best seen during a full Moon. Rays of bright material are ejecta blasted out of the crust when a large asteroid struck about 109 million years ago.

### Mare Serenitatis

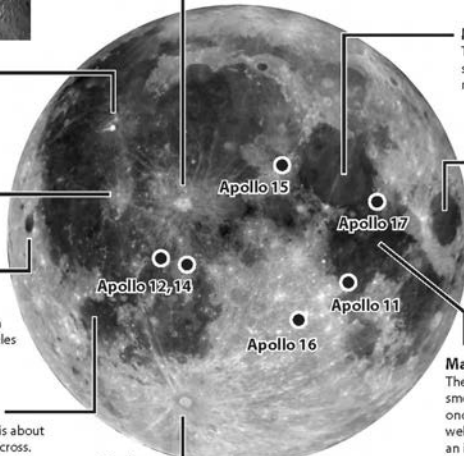
The Sea of Serenity is solid lava, some 380 miles (610 km) across.

### Mare Crisium

The Sea of Crisis is about 340 miles wide (550 km) and visible to the naked eye.

### Mare Tranquillitatis

The Sea of Tranquility is a smooth plain filled with once-molten lava that welled up from below after an impact billions of years ago. The first humans to walk on the Moon, Apollo 11 astronauts, landed near the edge.



SOURCES: NASA; ADVANCED SKYWATCHING; CAMBRIDGE ATLAS OF ASTRONOMY; DKVVISUAL ENCYCLOPEDIA

Photos: James Scala. Layout and text for Moon map used with permission: Robert Roy Britt/SPACE.com.

NASA Night Sky Network (nightsky.gpo.nasa.gov) administered by Astronomical Society of the Pacific (www.astronomy.org)

## Earth's Moon



# SPOTTING CRATERS

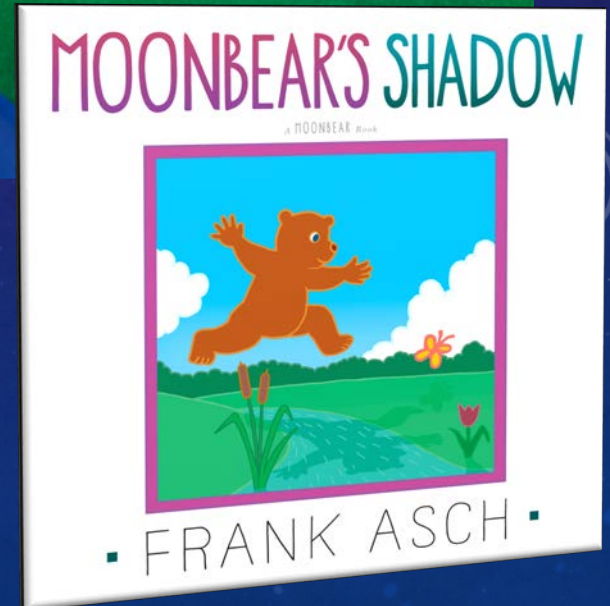
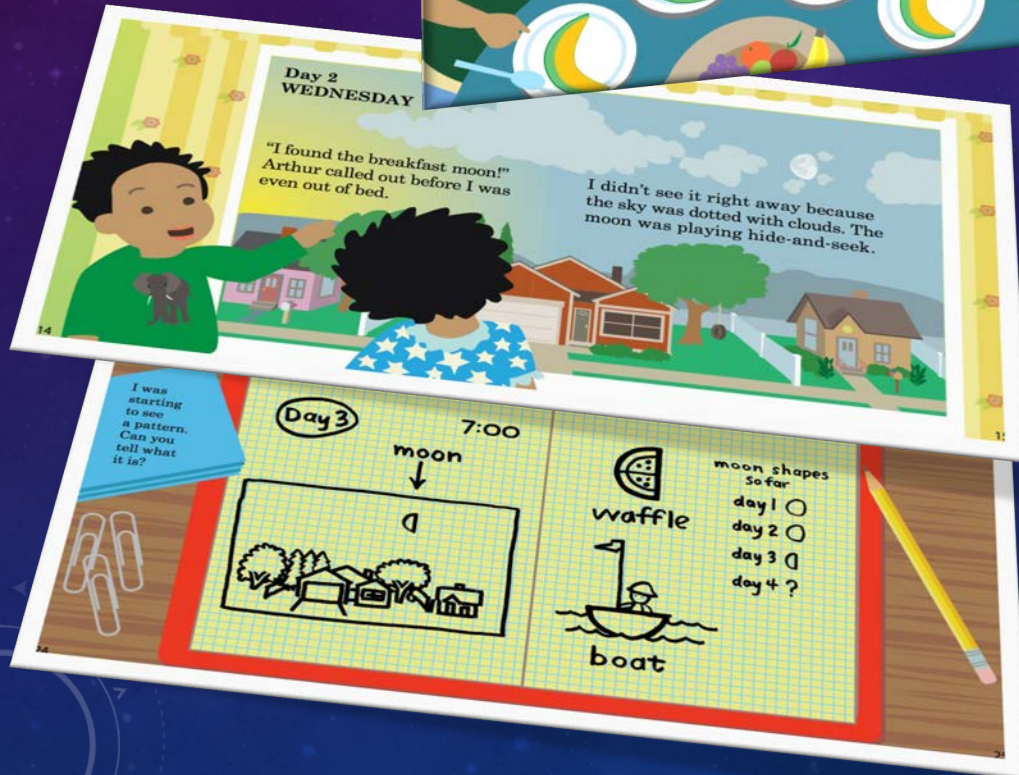
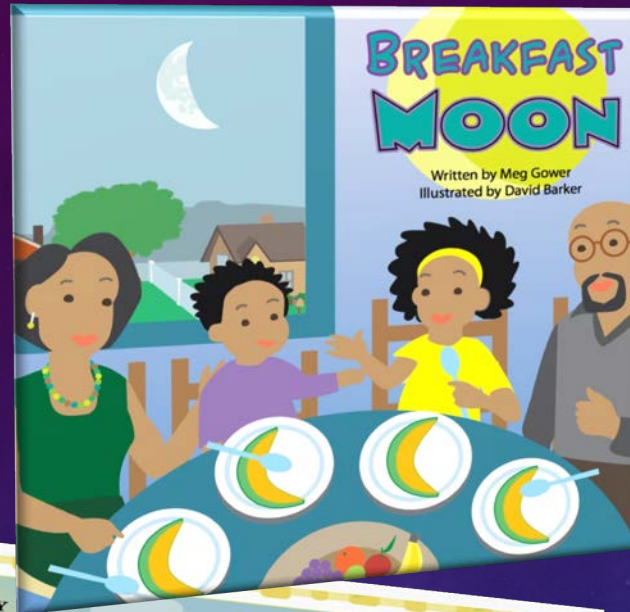


# MY SKY TONIGHT

Activities for 3 to 5-year-olds  
Developmentally appropriate  
science practices



# BOOKS





APOLLO  
50 NEXT GIANT LEAP

The logo is set against a dark blue space background with stars and nebulae. The word "APOLLO" is in a large, white, sans-serif font. The letter "O" is replaced by a circular image of the Moon, and the final "O" is replaced by a circular image of the planet Mars. A white swoosh line starts under the "A", passes behind the "O"s, and ends under the "L". Below "APOLLO" is the number "50" in a large, white, sans-serif font. To the right of "50" is the text "NEXT GIANT LEAP" in a smaller, white, sans-serif font. Several stylized starbursts are scattered around the text.

# RESOURCES FOR INTERNATIONAL OBSERVE THE MOON NIGHT

[moon.nasa.gov/observe](http://moon.nasa.gov/observe)

[bit.ly/nsnmoonnight](http://bit.ly/nsnmoonnight)



# Questions?

**(Please use the Q&A Function)**