

# Two-Eyed Seeing: Navajo Diné Astronomy

January 29, 2021 9-10 am PDT

Join us for an exciting session on Navajo (Diné) little known ancient astronomy! Learn how the Coyote created chaos as the Holy Beings were naming the stars. See how Navajo star knowledge is still used today, and what is the Navajo protocol for telling stories of the sky.

Produced by Indigenous Education Institute.

with

David Begay, PhD

Nancy C. Maryboy, PhD

Wilphina Becenti, M.Ed.

Albert Brent Chase

Sarah Margoles, MS, M. Ed

Ashley Teren, M.Ed.

Tom Tomas, M. Ed.

Vikki Tomas, M.Ed.

Annette S. Lee, PhD







# Two Eyed Seeing – NASA & Indigenous Astronomy – For the Benefit of All

As described by Mi'kmaw elders: *Etuaptmumk*

*Two-Eyed Seeing is learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing, and to use both these eyes for the benefit of all.* (Bartlett, Marshall and Marshall 2012, 336)

Join us!...For this eight month project that weaves together Indigenous Astronomy and NASA content in a way that will engage K-12 learners to participate in science and culture. Seven seasonal live (virtual) events will be produced and delivered each month Oct. 2020 to April 2021. Funded by NASA - Next Gen STEM, focus: Moon to Mars & STEM on Station.

## Schedule of Upcoming Live Shows for this Project:



Two-Eyed Seeing:  
Ojibwe Astronomy  
& NASA Moon 2 Mars

**Two Eyed Seeing:**  
**OJIBWE Astronomy & NASA  
Moon 2 Mars**

Friday, October 23, 2020

from 10-11 am cdt

[More Info](#) [Register](#)



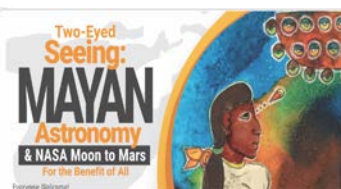
TWO-EYED SEEING:  
D(L)AKOTA  
ASTRONOMY  
& NASA MOON 2 MARS

**Two Eyed Seeing:**  
**D(L)AKOTA Astronomy &  
NASA Moon 2 Mars**

Friday, November 13, 2020

from 10 am – 11 am cst

[More Info](#) [Register](#)



Two-Eyed  
Seeing:  
**MAYAN**  
Astronomy  
& NASA Moon to Mars  
For the Benefit of All  
Everyone Welcomed

**Two Eyed Seeing:**  
**Mayan Astronomy & NASA  
Moon to Mars**

December 17, 2020

from 6:30-7:30 pm pst  
=8:30-9:30 pm cst



**Two Eyed Seeing:**  
**NAVAJO-DINE Astronomy &  
NASA Moon 2 Mars**

January 29, 2021

9 am PST, 10 am MST

[Register](#)



**Two Eyed Seeing:**  
**AFRICAN Indigenous  
Astronomy & NASA Moon 2  
Mars**

February 2021

TBA

[Coming soon...](#)

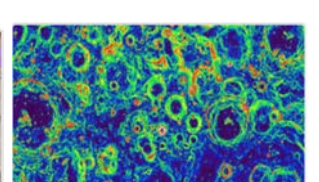


**Two Eyed Seeing:**  
**HAWAIIAN Indigenous  
Astronomy & NASA Moon 2  
Mars**

March 2021

TBA

[Coming soon...](#)



**Two Eyed Seeing:**  
**STEAM, Indigenous  
Astronomy & NASA Moon 2  
Mars**

April 2021

TBA

[Coming soon...](#)





### What is Next Gen STEM?

NASA's Office of STEM Engagement executed a series of efforts to develop STEM products and opportunities that provide a platform for students to contribute to NASA's endeavors in exploration and discovery. These mission-driven activities include over 20 evidence-based products and opportunities to engage students in authentic STEM experiences. NASA is working to provide mission driven opportunities that enhance STEM literacy and help build a vibrant and diverse next generation STEM workforce.



Commercial Crew Program



Small Steps to Giant Leaps



Moon to Mars



Moon to Mars

MARS 2020 STEM TOOLKIT

Connect Students to #CountdownToMars



Earn Educator Badges



NASA STEM FORWARD TO THE MOON



EXPLORE HUMANS in SPACE



STEM on Station



Funded by:

# NASA Next GEN STEM

with focus on  
Moon to Mars &  
STEM on  
Station

# Introduction & Welcome



Annette S. Lee



Nancy Maryboy



David Begay



# I. Brent Albert Chase - Mr. Chase



## II. Wilphina Becenti - Ms. Becenti

### Little Singer Community School



**“Hooghan Haz’áągi, K’é biníkáágóne’, Ólta’ beehółdzi**

Home Teachings, through Kinship, makes Education Strong



# III. Mr. Tom Tomas - Student Research Projects.

**K'é**

**Sun, Moon, Mother  
Earth, Self and  
Shadow  
Relationships**

by Donte Dokey



## How astrobiology fascinates me

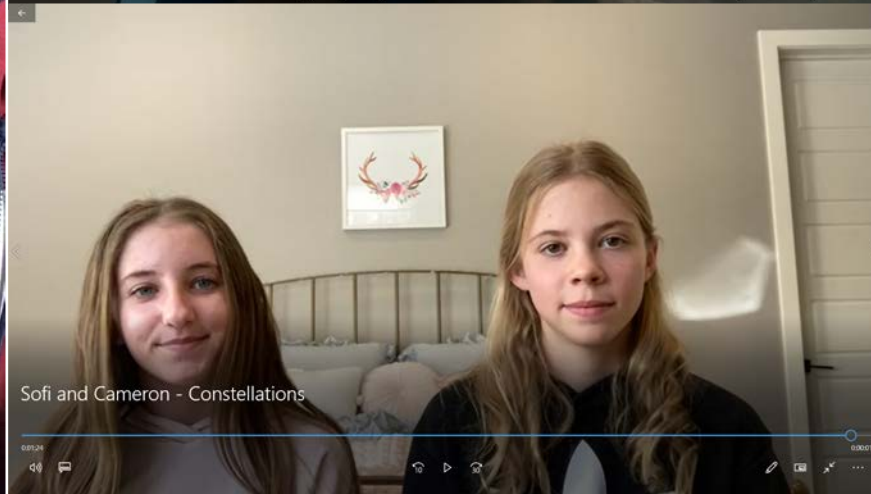
Astrobiology fascinates me because it gives me the opportunity to learn about planets and space. Astrobiology also fascinates because astronauts go to space to sacrifice their lives to study space for us to know more about our universe and if there is any way a person can live on one of the planets in our solar system.

This picture represents a project NASA did on astrobiology about the journey to mars. It also shows the rovers and robots they sent to mars over the years.





# IV. Sarah Margoles – Ms. Margoles - Comparing Constellations & Creation Stories





## VI. David Begay - Milky Way





# V. Nancy Maryboy - Thunderbird





# V. Nancy Maryboy - Bear






# V. Nancy - Sun





# VII. Eddie Gonzales – NASA

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3 months ago

Nov. 21, 2019

## Edward Gonzales: Advocating for Underserved Communities

[f](#) [t](#) [in](#) [p](#) [+](#)



The image shows four men standing in front of a NASA-themed backdrop. From left to right: a man in a dark suit and light shirt, a man in a dark suit and tie, a man in a black t-shirt and white pants (Eddie Gonzales) with a NASA logo on his shirt, and a man in a dark suit. A blue arrow points to Eddie Gonzales. The backdrop features the NASA logo and the text 'National Aeronautics and Space Administration'.

**Q & A**



# Ahxéhee' - Thank you!

## INDIGENOUS EDUCATION INSTITUTE

**TWO-EDINÉ (N)ASTRO  
LIVE  
(VIRTUAL)  
SHOW**

INDIGENOUS  
EDUCATION  
INSTITUTE:  
Nancy C. Maryboy  
David Begay, PhD  
Ashley C Teren, M.

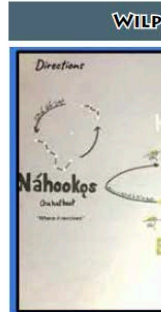
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Painting by Albert Brent



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last 20 years, humans have continuously  
lived and worked aboard the Internation  
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preparing for the day we move farther  
into the solar system. Sending human  
explorers 250,000 miles to the Moon,  
then 140 million miles to Mars, requires  
a bold vision, effective program man  
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development and mission operations,  
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globe..."

Ref - <https://www.nasa.gov/specials/artemis/> and [https://www.nasa.gov/sites/default/files/atoms/files/artemis\\_plan-20200921.pdf](https://www.nasa.gov/sites/default/files/atoms/files/artemis_plan-20200921.pdf)



<https://www.nasa.gov/specials/artemis/>

<http://indigenouseducation.org>



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

## Educator Materials & Resources:

- **Booklet** featuring Navajo (Dine) Astronomy & NASA Moon to Mars content | [Coming Soon](#)
- **Slides** supplement to the Live Show & NASA Moon to Mars content | [Coming Soon](#)
- **Event Flyer** | [View](#)
- **Worksheet** (to accompany the Live show) | [View & Download](#)
- **Activity** (for later) | [View & Download](#)
- **Recording of Live Event** (will be posted ~week after the event) | [Coming Soon](#)



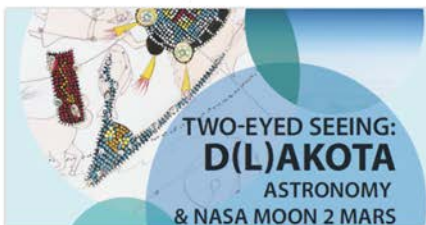
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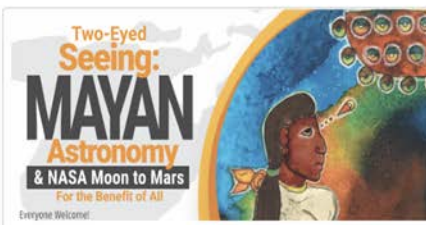
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