

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

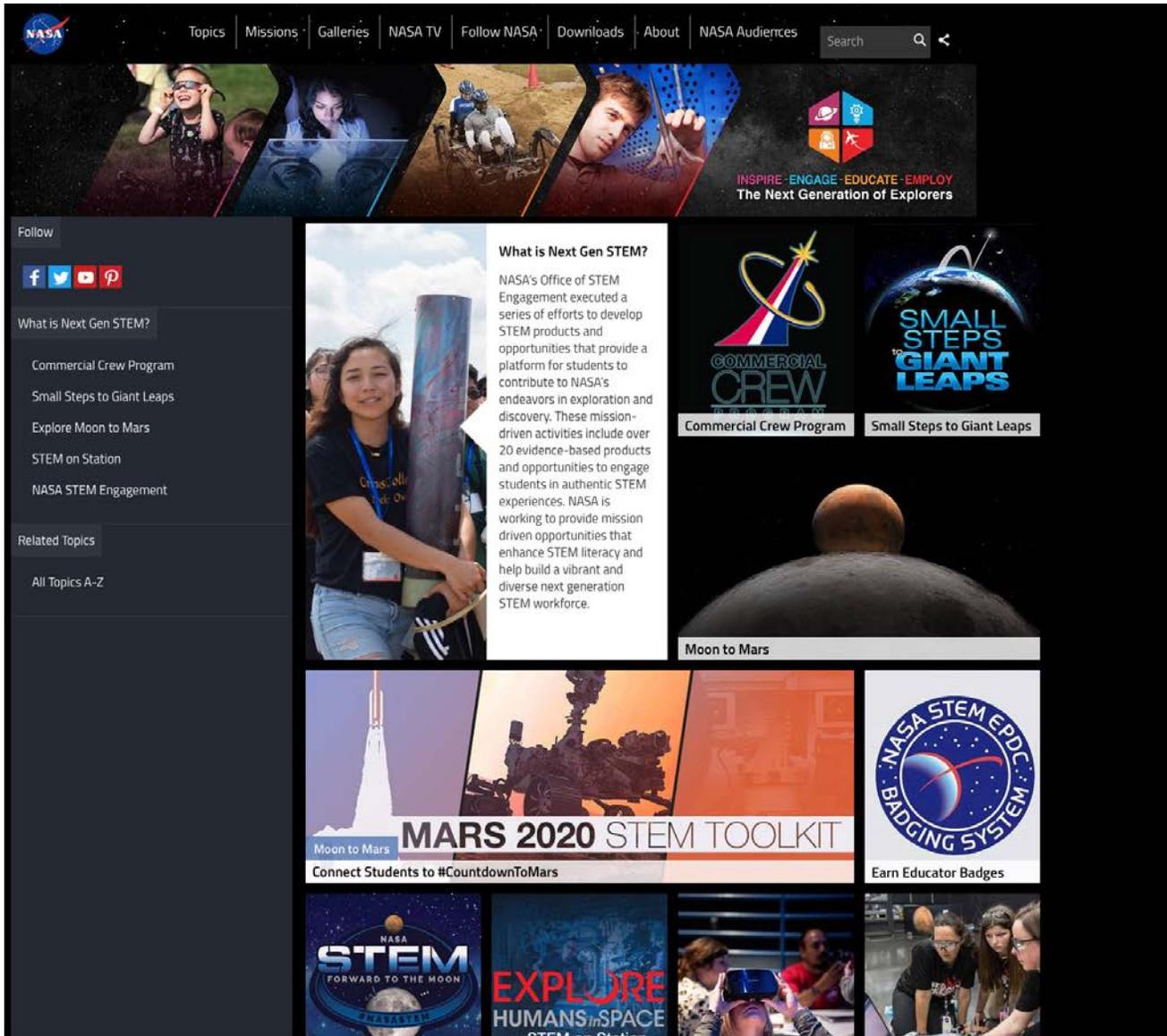
As described by Mi'kmaw elders: *Etuaptmumk*

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:

 <p>Two Eyed Seeing: OJIBWE Astronomy & NASA Moon 2 Mars</p> <p>Friday, October 23, 2020 from 10-11 am cdt</p> <p>More Info Register</p>	 <p>TWO-EYED SEEING: D(L)AKOTA Astronomy & NASA Moon 2 Mars</p> <p>Friday, November 13, 2020 from 10 am – 11 am cst</p> <p>More Info Register</p>	 <p>Two-Eyed Seeing: MAYAN Astronomy & NASA Moon to Mars</p> <p>December 17, 2020 from 6:30-7:30 pm pst =8:30-9:30 pm cst</p>	 <p>Two Eyed Seeing: NAVAJO-DINE Astronomy & NASA Moon 2 Mars</p> <p>January 29, 2021 9 am PST, 10 am MST</p> <p>Register</p>	 <p>Two Eyed Seeing: AFRICAN Indigenous Astronomy & NASA Moon to Mars</p> <p>Friday, February 26, 2021 10:30 am cst</p> <p>Register</p>	 <p>Two Eyed Seeing: HAWAIIAN Indigenous Astronomy & NASA Moon to Mars</p> <p>March 12, 2021 9 am hst, 11 am pst, 12 noon mst, 1 pm cst, 2 pm est</p> <p>Register</p>	 <p>Two Eyed Seeing: ART, Indigenous Astronomy & NASA Science-Making Spirit, Making Art</p> <p>Friday, April 30, 2021 9 am cdt, 10 am edt, 8 am mdt, 7 am pdt</p> <p>Register</p>
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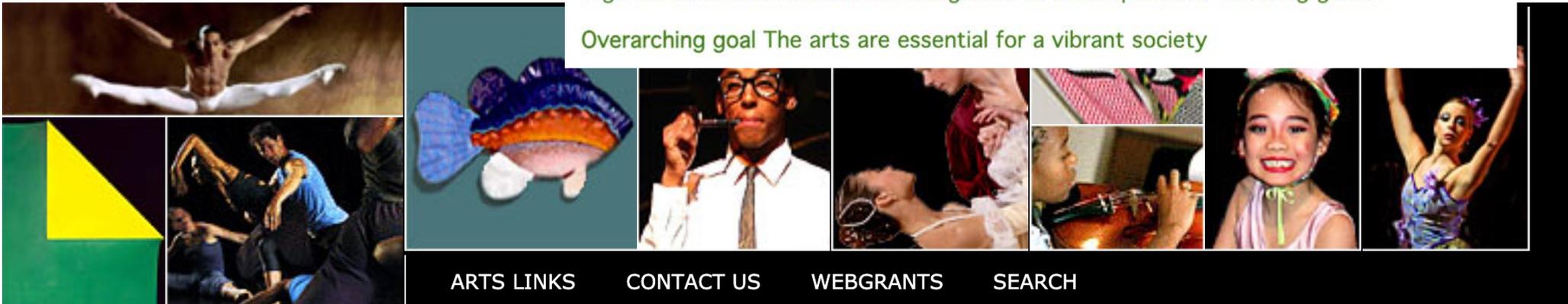
Funded by:
**NASA Next GEN
STEM**
with focus on
Moon to Mars &
STEM on
Station

MINNESOTA STATE ARTS BOARD

Goals and Key Strategies

In order to realize our legacy vision, the Minnesota State Arts Board and the Minnesota's regional arts councils must work together to accomplish the following goals:

Overarching goal The arts are essential for a vibrant society



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Vision, Guiding Principles, Goals and Key Strategies

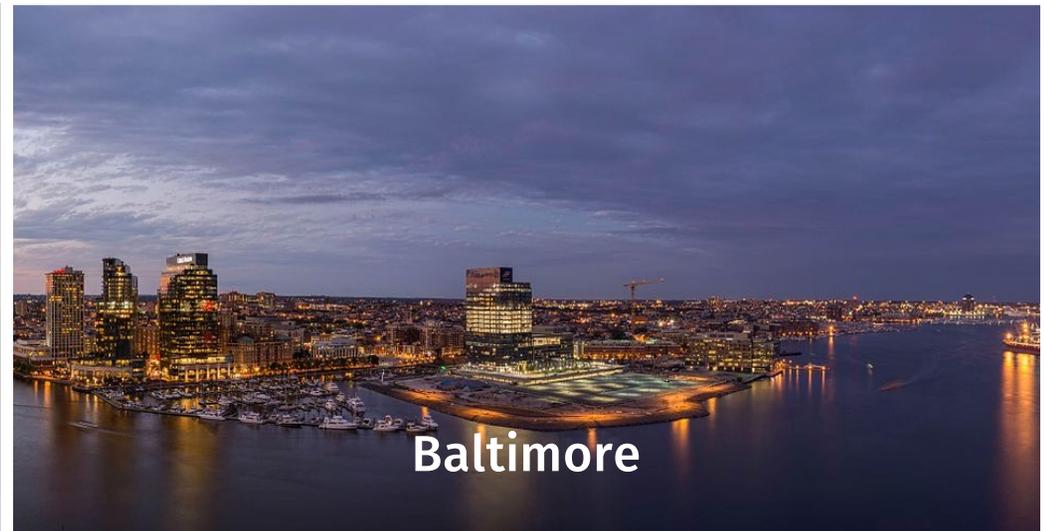
Vision

In twenty-five years, Minnesotans will have made a significant investment in the arts. As a result...

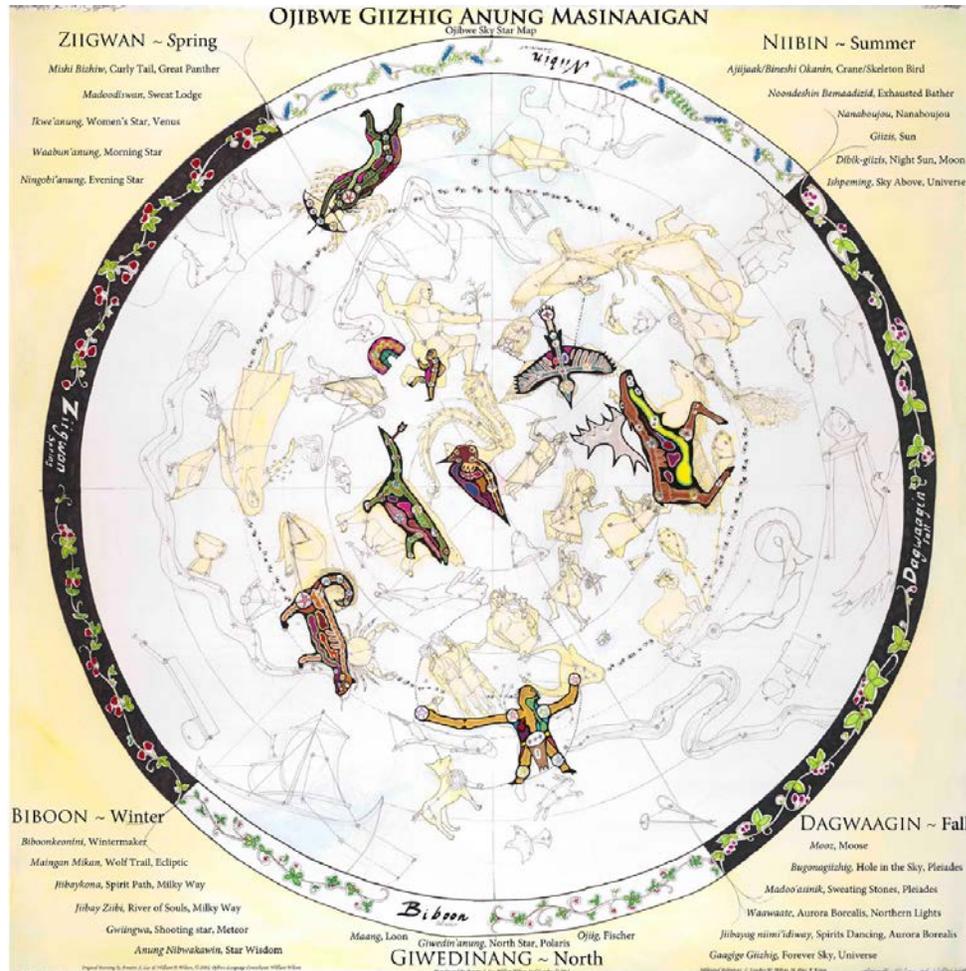
In Minnesota, the arts define who we are. This is a place where people are transformed by high-quality arts experiences, and see the arts as essential to their communities. The arts are integrated into all aspects of our lives, connecting people of all ages and cultures, fostering understanding and respect.

[FY 2022 Creative Support for Organizations](#)

LAND ACKNOWLEDGEMENT

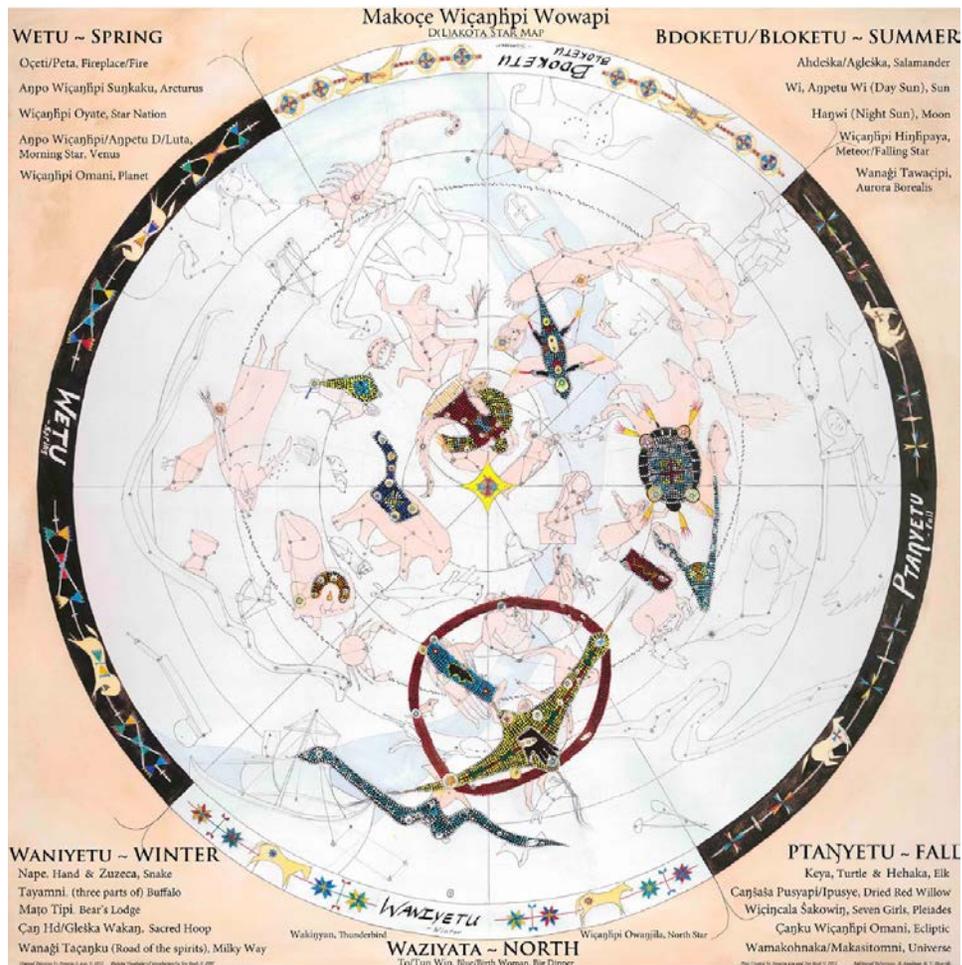


A MERGER OF THREE TEAMS: OJIBWE



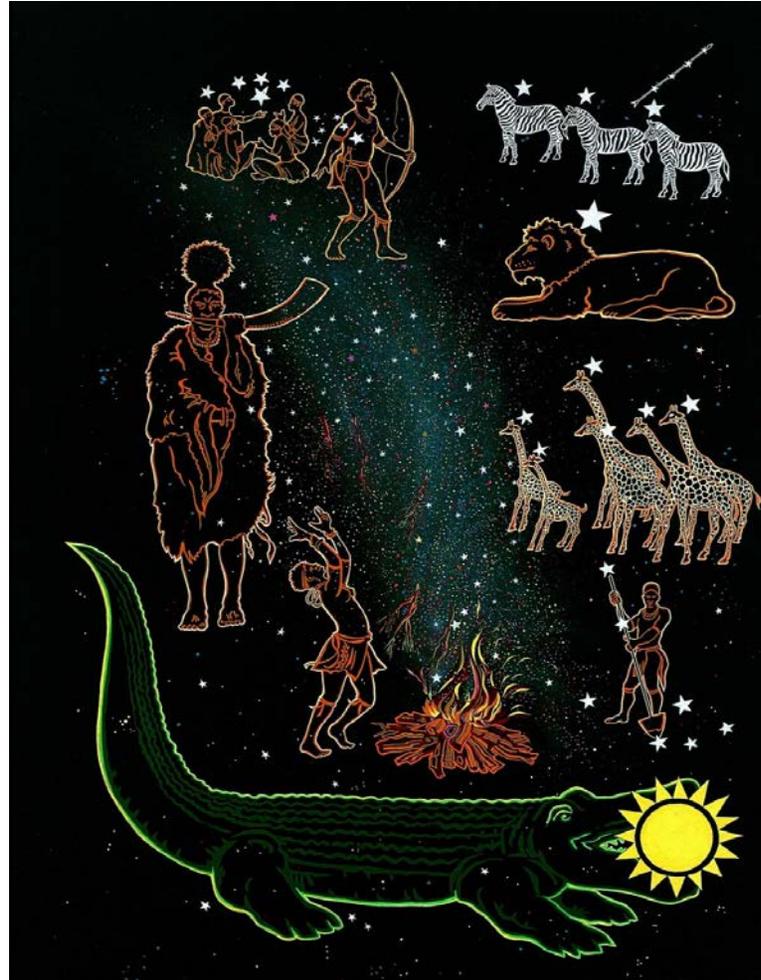
"OJIBWE GIIZHIG ANUNG MASINAAIGAN - OJIBWE SKY STAR MAP", A NATIVE SKYWATCHERS STAR MAP CREATED BY ANNETTE S. LEE, WILLIAM WILSON, CARL GAWBOY, ©2012

A MERGER OF THREE TEAMS: D(L)AKOTA



"MAKOČE WIČANĤPI WOWAPI - D(L)AKOTA STAR MAP", A NATIVE SKYWATCHERS STAR MAP CREATED BY ANNETTE S. LEE, J. ROCK, ©2012.

A MERGER OF THREE TEAMS: BALTIMORE-> SOUTH AFRICAN



"STAR LORE OF SOUTHERN AFRICA ". ARTWORK BY BRAAM BOTHA, SOUTH AFRICAN ASTRONOMICAL OBSERVATORY (SAAO) ©1998

Q & A



The Giraffe Stars, Credit: Diontae in 3rd Grade Champs



The Giraffe Stars, Credit: Lameia in 3rd Grade Champs

The Hopeless Hunter & Zebra Stars

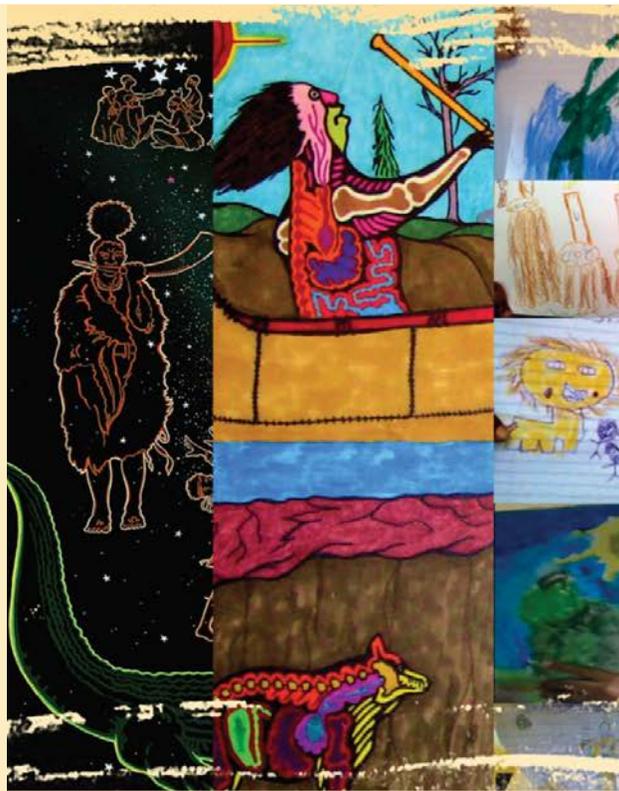
According to the Namaquas, the Pleiades were the daughters of the sky god. When their husband (Aldeberan) shot his arrow (Orion's sword) at three zebras (Orion's belt), it fell short. He dared not return home because he had killed no game, and he dared not retrieve his arrow because of the fierce lion (Betelgeuse) which sat watching the zebras. There he sits still, shivering in the cold night and suffering thirst and hunger. -<http://sirius-b.nocat.edu/esass/mythology/Africa-Star/index.html>



The Hopeless Hunter, Credit: Kuron in 3rd Grade Champs



The Hopeless Hunter, Credit: Denaysia in 3rd Grade Champs



The Crocodile & Sun, Credit: Uenaira in 3rd Grade Champs



The Crocodile & Sun, Credit: Malachi in 3rd Grade



The Crocodile & Sun, Credit: Grace in 3rd Grade Champs



The Crocodile & Sun, Credit: Devron in 3rd Grade Champs

Healing Star

A young couple was blessed with a son, but unfortunately their son had an unhealthy heart. The mother remembered her grandmother's story of a Healing Star. She took her son under the stars one night and sang a pleading song. Amazingly a star healed her son. They were forever thankful to the 'Warm-Hearted Star'. -"The Crocodile Who Swallows the Sun and Other Stories of the Southern Sky", Danisile Ntuli, 2006



The Healing Star, Credit: Ja'Keye in 3rd Grade Champs



The Healing Star, Credit: Leesh in 3rd Grade Champs

Wopida! Miigwech! Thank you!

Funded by:
NASA-Next Gen STEM & MN State Arts Board

Credit for this work:

Lee, Annette S., Carl, Carl Gawboy, William Wilson, Jeffrey Roberts, Jim Knutson-Kolodzna, Janice Bad Moccasin, Ida Rowenwind, Ramona Kitto Stately, Tavia La Follette, Mrs. Venzen-Hall, and Ms. Richardson. Our lead school is the Dr. Bernard Harris Sr. Elementary School in Baltimore, Maryland. "Two-Eyed Seeing: Art, Indigenous Astronomy & NASA Science-Making Spirit, Making Art", Apr. 2021, <https://nativeskywatchers.com/two-eyed-nasa-art.html>

nativeskywatchers@gmail.com www.nativeskywatchers.org

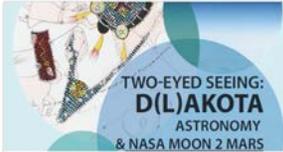
Educator Materials & Resources:

- **Booklet** featuring Art, Indigenous Astronomy, & NASA Moon to Mars-Making Spirit, Making Art content | [Coming Soon](#)
- **Slides** supplement to the Live Show & | [Coming Soon](#)
- **Event Flyer** | [View & Download](#)
- **Worksheet** | [Coming Soon](#)
- **Recording** of Live Event (will be posted ~week after the event) | [Coming soon...](#)

Schedule of Upcoming Live Shows for this Project:**Two-Eyed Seeing:
Ojibwe Astronomy
& NASA Moon 2 Mars****Two Eyed Seeing:
Ojibwe Astronomy & NASA
Moon to Mars**

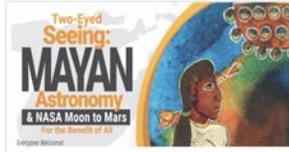
Friday, October 23, 2020

from 10-11 am cdt

[More Info](#) [View](#)**TWO-EYED SEEING:
D(L)AKOTA
ASTRONOMY
& NASA MOON 2 MARS****Two Eyed Seeing:
D(L)akota Astronomy & NASA
Moon to Mars**

Friday, November 13, 2020

from 10 am – 11 am cst

[More Info](#) [View](#)**Two-Eyed
Seeing:
MAYAN
Astronomy
& NASA Moon to Mars****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[View](#)**Two Eyed Seeing:
NAVAJO (Dine) Astronomy &
NASA Moon to Mars**

January 2021

9 am PST, 10 am MST

[Register](#)**Two Eyed Seeing:
AFRICAN Indigenous
Astronomy & NASA Moon 2
Mars**

February 2021

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

Friday, February 26, 2021

10:30 am cst

[Register](#)**Two Eyed Seeing:
HAWAIIAN Indigenous
Astronomy & NASA Moon 2
Mars**

March 2021

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

March 12, 2021

9 am hst, 11 am pst, 12 noon mst, 1 pm
cst, 2 pm est[Register](#)**Two Eyed Seeing:
ART, Indigenous Astronomy &
NASA Science-Making Spirit,
Making Art**

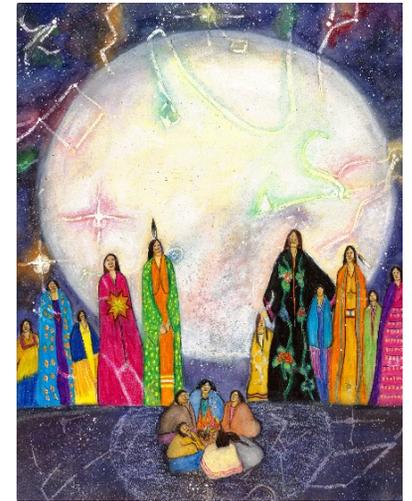
Friday, April 30, 2021

9 am cdt, 10 am edt, 8 am mdt, 7 am pdt

[Register](#)**Save the Date!!!!****Native Skywatchers –
Educator & Community
Summer Workshop
2021!**

June 14-15, 2021

Free, online event

**BONUS EVENT!!! “Two-Eyed
Seeing: Arabian Astronomy
& Seasonal Forecasting”**May 14, 10 am PDT = 11 am mdt = 12
noon cdt = 1 pm edt



"We Are Stardust"

A Collaborative Research Project between *Native Skywatchers* and UC-Santa Cruz

This project lives at the intersection of Science-Art-Culture - Led by Annette S. Lee and Raja (Puragra) GuhaThakurta

<https://nativeskywatchers.com/nativesky-stardust.html>