

Eclipses, Indigenous Celestial Knowledge, and Montana Indian Education for All: Essential Understandings 1 and 3 Tribal Diversity and Cultural Traditions

## Cultural Responsiveness in Teaching About Eclipses

Some tribal nations may have a culturally specific protocol during a solar eclipse in addition to a story connected to this type of celestial event. Across the US, and for Indigenous peoples across the world, each community attributes their own languages and belief systems onto this amazing celestial event. Teaching about eclipses provides an opportunity to deepen understanding of Native cultures and tribal diversity. By learning more about and respecting eclipse protocols and teachings, educators promote cultural responsiveness and appreciation among both Native and non-Native students. It is important to emphasize the importance of cultural sensitivity and empathy in all educational contexts as it fosters an inclusive learning environment where students honor and appreciate diverse cultural traditions.

## **Teaching Strategies**

- Integrate available, vetted Indigenous teachings on eclipses and other celestial wonders into science and cultural studies curriculum.
- Use resources from tribal educators and elders to provide authentic perspectives.
- Educate students about different tribal eclipse protocols and their cultural significance.
- Emphasize respect for diverse cultural practices during celestial events.
- Encourage students to reflect on their own cultural beliefs and practices related to celestial events.
- Encourage discussions on cultural perspectives and beliefs surrounding eclipses.

## A Culturally Responsive Example from the Dine (Navajo) Navajo Teachings on the eclipse from the Exploratorium

- Navajo term for a solar eclipse: Jóhonaa'éí Daaztsá (The Death of the Sun).
- During solar eclipses, Navajo people observe fasting, prayer, and remain indoors.
- Eclipse signifies a new birth and a time for resolutions.
- Eclipse involves the moon (Tł'é'honaa'éí) obstructing the sun (Jo'honaa'éí).
- Navajo teachings emphasize not looking at the eclipse and maintaining stillness indoors.
- Eating and drinking during the eclipse period are discouraged to prevent health issues.

- Eclipse beliefs stem from ancestral observations of nature's changes.
- Animal behavior, like sheep seeking shade and settling, guided early understanding of eclipses.

Montana Tribal Language Words for Eclipse (*if the tribal language word is linked, go to the online dictionary to hear the word pronounced*)

- <u>Dakota</u>: wita; aohaŋziya; kapeya
- <u>Blackfeet</u>: o'ksiko'ko
- Crow: áxxaashe shée; áxxaashe alashée; baapím óotchia; bilítaachiia shée
- <u>Northern Cheyenne</u>: -mo'ohtáveotse; <u>É-mo'ohtáveotse</u>
- <u>Cree</u>: kotâwîwi-pîsim

Resources for Teaching about the Cosmos

## Articles

<u>American Indian Beliefs About The Eclipse – Multiple Tribal Perspectives including Crow</u> (Smithsonian article)

Solar Eclipse Covers Turtle Island

The story of the Onondaga Nation and an eclipse

The eclipse that marked the start of the Iroquois Confederacy

Lessons

National Museum of the American Indian Lone Dog Winter Count

Day and Night - Grade 1

Montana Skies - Grade 3

Montana Skies - Grades 4-8

- Blackfeet Astronomy Teachers Guide
- Blackfeet Astronomy Videos
- <u>Crow Astronomy Teachers Guide</u>
- Crow Astronomy Videos
- <u>Blackfeet and Crow Star Stories Lesson for Students</u> (individual directed)

NASA Ancient Observatories Timeless Knowledge Website

Native Skywatchers

National Museum of the American Indian Star Stories

Indigenous Star Stories