

# Star Knowledge

For thousands of years, people across the world have looked up at the night sky and marveled at what they saw. They create different pictures from the patterns of the stars, and tell stories about the stars, planets, comets, and other objects in the sky. They use astronomical knowledge to tell time, navigate, predict the weather, create art, tell stories, and make sense of the world around them.

Astronomy traditions vary across cultures, communities, and individuals. The information collected here is a small sample of how some cultures view the night sky.



Night sky at Denali National Park.

*Image: National Park Service/Jacob W. Frank*

# Y ik A

The Yup'ik people of southwest Alaska have identified many constellations, based on the animals, tools, and concepts familiar in their lives. There are many stories about these constellations and patterns in the sky. For example, the story "How Raven Made the Milky Way" explains how Raven snowshoed across the sky in search of light; the tracks he left behind became the Milky Way.

For generations, Yup'ik people have used their knowledge of the stars to navigate at night. Learning the patterns of the stars and how they appear to move can help guide travelers safely to their destinations.

The most important star landmarks for navigating are *Tunturyuk* (the Caribou, known in English as the Big Dipper), *Agyarrikuk* (the North Star), and *Qengartarak* (the Nose with Two Nostrils, known as English as Cassiopeia).

*Yup'ik constellations and names vary across villages and regions. This map shows one version of Yup'ik constellations; there are many others.*

*Information and map from Star Navigation, Math in a Cultural Context Series, edited by Jerry Lipka, 2007.*

# *Cultural Star Knowledge*

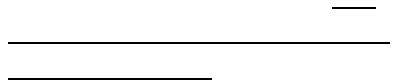
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# Inuit Astronomy

For many Inuit cultures of northern Canada, the stars



# Greek and Roman Astronomy

Greek and Roman scientists such as Hipparchus and Ptolemy observed the sky, catalogued the stars they could see, and developed models to explain the motion of the sun, stars, and planets. Many of the commonly known constellation names come from ancient Greek and Roman mythology. For example, Pegasus represents the white winged horse from Greek stories, Draco represents a dragon from Greek legends, and Orion represents a hunter from Greek mythology.

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# Chinese Astronomy

In ancient China, it was believed that events in the sky directly reflected events on earth. For example, a comet appearing unexpectedly was about to happen. The emperor was seen as the Son of

accurate records of planets.

east, west, and center.

North, the Red Bird

East, and the White Tiger of

regions contains seven constellations. The center region

contains several additional constellations.

Sky map of 28 major Chinese constellations.

Information and map from

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# Star Stories

What stories do YOU know about the stars or the night sky? Write a story or draw a picture!



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# Observe the Sky!

Go outside and observe the sky. What do you notice? Can you see any constellations?

Look at the sky at different times and from different places. Do you see any changes?

*Write and draw your observations.*

