

Amaze Your Brain *at Home!*

EXPERIMENTS

BEST FOR
Grades
3-5

STARS AROUND THE WORLD

For thousands of years, people all over the world have studied the stars and the way they move across the night sky through the year. Many cultures see stars and the constellations as representations of their beliefs, as characters in their mythologies, or as reminders of the changing seasons. Many of the names astronomers use today for the constellations come from ancient Greek mythology. For example, the Pleiades, named for the Seven Sisters, is a bright cluster of stars that sailors used to determine the best time of year for sailing conditions. And Sirius, the Dog Star, may have given us the phrase “the dog days of summer” because the ancient Greeks noticed it rising before dawn at the hottest time of year. Both Sirius and Pleiades are visible in the Dallas night sky in the winter and spring.



Pleiades star map

Here are some of the ways people across the globe see those same stars:

NORTHERN CANADA, GREENLAND, AND ALASKA

The Inuit peoples of northern Canada, Greenland, and Alaska have many names for the star cluster we refer to as the Pleiades. In many areas of the Arctic, it is connected to hunting and navigation. In Greenland, for example, the cluster is referred to as Qilugtuusat and represents a pack of dogs letting out a special bark to alert hunters that they've found a polar bear.

ARIZONA, NEW MEXICO, UTAH, AND COLORADO

The Navajo are an indigenous people who have lived in what is now called the Four Corners region of the United States for many hundreds of years. Today, thousands of members of the Navajo Nation live in Arizona, New Mexico, Utah, and Colorado. Dilyéhé (Pleiades) disappears from the night sky in early May and reappears in late June or early July. This small window is the ideal time to plant corn in the Four Corners region, so Navajo farmers understood that planting while they could see Dilyéhé meant they were either too early or too late.

EGYPT

Ancient Egyptians noticed that the star Sirius rose at dawn at the same time every year. They used this date to prepare for the annual flooding of the Nile River which brought new soil and water for their crops.

SOUTHERN AFRICA

For people in traditional farming communities in Southern Africa, the appearance of the Pleiades was a sign to begin planting crops. Known as the “rain stars” or the “digging stars,” they have different names in many of South Africa’s 12 official languages. For example, the constellation is called isiLimela in isiZulu, Selemela in Sotho, and Tswana and Tshilimela in Venda.

JAPAN

In Japan, the stars of Pleiades are called Subaru which means ‘unite.’ The stars played an important role in tracking hunting seasons for the Japanese and Ainu people. Today, the stars are represented on the logo of a certain brand of Japanese car.

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EXPERIMENTS

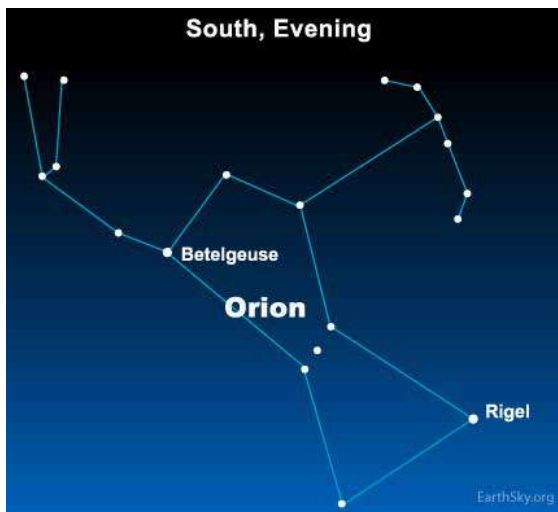
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STARS AROUND THE WORLD

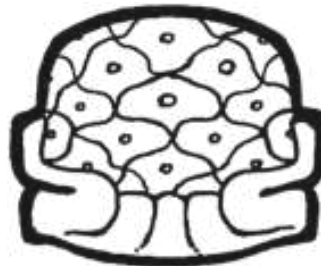
THE MAYA OF MESOAMERICA

The Maya are an indigenous people that have continuously occupied Mesoamerica, which consists of portions of México, Belize, Guatemala, El Salvador, and Honduras for thousands of years. The ancient Maya are revered by archaeologists and historians for their early advances in astronomy, mathematics, and writing. The ancient Maya observed and recorded the movements of the sun, moon, stars and planets, and celebrated these movements through various rituals.

Here are two Maya constellations you can find in the night sky in Dallas in winter and spring:



You might know the constellation Orion as the hunter. The ancient Maya called the same collection of stars Ahk and saw it as a turtle. The turtle was often depicted with God N, one of many gods worshipped by ancient Maya. God N is associated with thunder, music, and mountains.



The stars we see as the constellation Gemini (the twins), ancient Maya observed as an owl they called Xoch'. As in many other cultures, the owl likely symbolized darkness, death, or bad omens, and is sometimes depicted in ancient Maya art with representations of hunting.



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ACTIVITY

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STARS AROUND THE WORLD

Solve the clues to see which words are hidden in the Word Search on the next page.

1. The _____ was associated with thunder, music, and mountains in ancient Maya religion.
2. To the ancient Maya, the stars of Xoch' represented an _____.
3. The _____ Sirius helped ancient Egyptian people plan for the annual flooding of the _____ River.
4. In ancient Greece, _____ used the stars of Pleiades to determine safe conditions for navigating.
5. The people of ancient Greece noticed _____ rising in the morning at the hottest time of year, the "_____ days of summer."
6. In _____, the star cluster known as Pleiades is called Subaru, meaning _____.
7. For many Inuit people, the star cluster we call _____ is connected to hunting and navigation.
8. In Greenland, the constellation Qilugtuusat represents a pack of dogs alerting hunters of a _____ bear.
9. If _____ farmers could see Dilyéhé in the night sky, that meant it was not the ideal time to plant _____.
10. The constellation isiLimela was a sign for farmers to begin planting crops in South _____.
11. _____ is a constellation the Maya called Ahk.

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WORD SEARCH

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STARS AROUND THE WORLD

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