

# Constellations

By Cindy Grigg

<sup>1</sup> Groups of stars seen together are called constellations. This doesn't mean the stars are actually together. It's just that from our viewpoint here on Earth, they look like they are together. People long ago looked up in the sky and saw these groups of stars. They decided the stars looked like a picture, and then they made up stories about those pictures.

<sup>2</sup> Some historians believe that many of the myths about the constellations were invented to help farmers remember them. When they saw certain constellations, they would know it was time to begin the planting. Farmers have always known that for most crops, you plant in the spring and harvest in the fall. But in some places in the world, there is not much difference in the seasons. Since different constellations are visible at different times of the year, farmers used them to tell what month it was. For example, Scorpius is only visible in the northern hemisphere's evening sky in the summer. Where the constellations are seen in the sky depends on the observer's location and the time of the year.

<sup>3</sup> This storytelling about the constellations was a part of many cultures. Thousands of years ago, people in the Middle East began stories about the pictures they saw in the nighttime sky. The ancient Greeks turned them into legends and recorded them in stories and verse. During Roman times they were given Latin names. Native American cultures had stories of their own. Today there are 88 recognized constellations.

<sup>4</sup> The Big Dipper is part of the constellation Ursa Major. Although the Big Dipper is not a constellation, it is important. The Big Dipper helped people find the North Star. The two stars that make the front of the dipper are called the Pointers. If you follow a straight line out from the Pointers, you will come to the North Star. The Big Dipper changes position in the sky, but the North Star is always in the same place. Sailors used the North Star to navigate their ships across the big, unmapped ocean. During the Civil War, runaway slaves used it to guide them north toward freedom. You can read more about this in the picture book [Follow the Drinking Gourd](#) by Jeanette Winter.



## Constellations

<p>1. What are constellations?</p> <p><input type="radio"/> A Groups of stars seen together</p> <p><input type="radio"/> B Imaginary pictures made of groups of stars</p> <p><input type="radio"/> C 88 different groups of stars</p> <p><input type="radio"/> D All of the above</p>	<p>2. Some historians believe that:</p> <p><input type="radio"/> A The stories were made up to help farmers remember them.</p> <p><input type="radio"/> B The stories were true.</p> <p><input type="radio"/> C The stories were made up because the constellations foretold the future.</p>
<p>3. What two things determine where the constellations are seen in the sky?</p> <p><input type="radio"/> A What will happen in the future and what happened in the past</p> <p><input type="radio"/> B The observer's location and the time of the year</p> <p><input type="radio"/> C The luck of the observer</p>	<p>4. The constellation stories were made up by the ancient Greeks.</p> <p><input type="radio"/> A False</p> <p><input type="radio"/> B True</p>
<p>5. How many constellations are recognized today?</p> <p>_____</p> <p>_____</p>	<p>6. It is useful to know about the Big Dipper because:</p> <p><input type="radio"/> A It can help you know when to plant crops.</p> <p><input type="radio"/> B It can help you find the direction of north.</p> <p><input type="radio"/> C It can remind you of a story.</p>
<p>7. The two stars called the Pointers in the Big Dipper are:</p> <p><input type="radio"/> A In the handle of the dipper</p> <p><input type="radio"/> B The front of the dipper</p> <p><input type="radio"/> C Pointing to the North Star</p> <p><input type="radio"/> D Both B and C</p>	<p>8. Most cultures made up stories about the constellations.</p> <p><input type="radio"/> A False</p> <p><input type="radio"/> B True</p>

## Aries - The Ram

Athamas, the legendary king of Thessaly, had two children, Phrixus and Helle. He had remarried and Ino, the children's stepmother, began to treat them very badly. They were treated so cruelly that Hermes took pity on them and sent a magical ram to take them away and escape their stepmother's wrath.



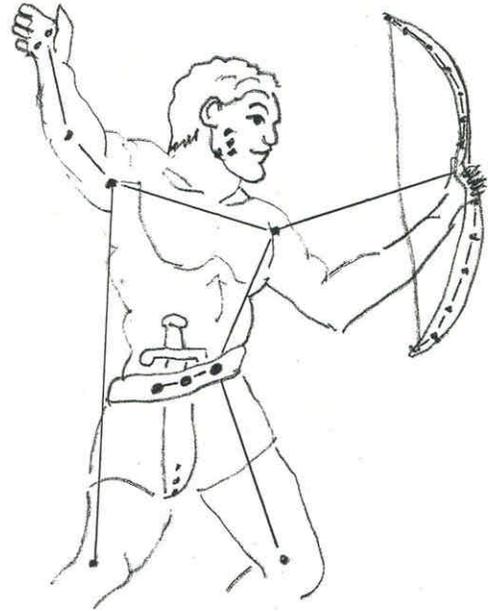
Mounted on the ram's back, the children flew over land and sea to the east. Unfortunately, Helle failed to get a good hold on the fleece of the ram and as they flew over the strait that separates Europe and Asia, she fell off and was drowned in the sea far below. That sea is called Hellespont to this day in honor of her memory.

Phrixus landed safely at Colches, which is on the edge of the Black Sea. In gratitude for his safe deliverance, Phrixus sacrificed the ram and gave its Golden Fleece to the king of that country.

In honor of the ram's great sacrifice in saving the children, Zeus placed the ram's constellation, Aries, in the night sky.

## Orion - The Great Hunter

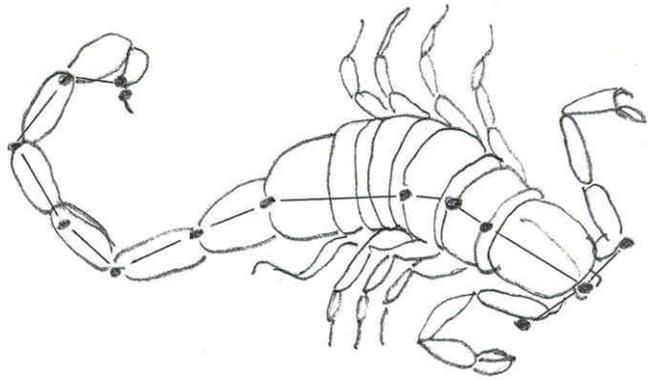
With his great skill as a hunter, Orion provided meat each day for the gods' meals. One day, Artemis (Diana), the moon goddess and goddess of the hunt, asked if she could accompany Orion on his daily hunt. He readily agreed. The next day as they were hunting in the woods, they saw a deer. Orion carefully fitted an arrow to his bow and shot. So sure was his shot that the deer died instantly, which pleased Artemis greatly. At dinner that evening, Artemis told everyone, even Zeus, of Orion's great ability with the bow. All of the praise extremely pleased Orion, who vowed to impress Artemis even more the next day.



Arising at dawn, Orion proceeded again to the forest where he shot every animal he found. He then made a large pile of these animals near the door to Artemis' house. Then, knocking on her door, he asked her to come outside and see the great surprise he had for her. Upon seeing the great pile of dead animals, Artemis was horrified! For you see, Artemis was also the protector of animals and punished those who killed more than they could eat. In her anger, she stomped her foot on the ground and out of the dust came a great scorpion which stung Orion on the heel causing him to die in great pain. But in honor of his great service to the gods, Zeus placed his constellation in the sky.

## Scorpio - The Scorpion

This is the famous Scorpion, which came up out of the ground and was commanded by Artemus to sting Orion, the mighty hunter, and caused him to die. That was the punishment Orion received because he had killed so many animals for no reason, except to try to impress her.



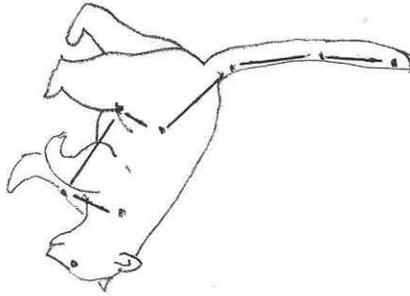
Scorpio was then placed into the sky on the opposite side of the world from Orion so as to avoid any further conflict. It was also placed in the sky to remind all of us that it is okay to kill animals for food, but it is wrong to kill them just for the fun of it.

# Ursa Major - The Big Bear (Dipper)

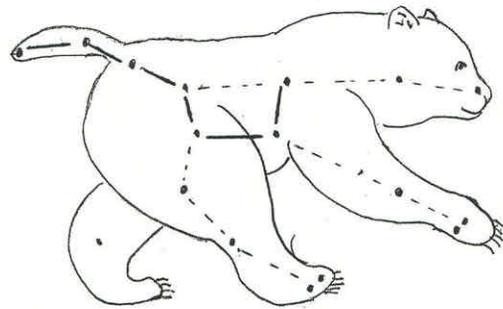
and

# Ursa Minor - The Little Bear (Dipper)

Ursa Major is one of the oldest known constellations and has more named stars in it than any other constellation. It has been known by many names, but the form of the bear has become the most common, even though it's quite difficult to see this image in the stars.



In Greek mythology, Zeus had many human girlfriends, but his favorite was the beautiful nymph Callisto. His secret visits to earth to meet with her only added to Hera's jealousy and determination to get revenge against these women.



One day, as Zeus was walking through the forest with Callisto, he saw his wife Hera coming. Unable to hide Callisto in time, he turned her into a large brown bear. When Hera arrived, she saw only Zeus walking by himself through the forest. She looked around, searching for someone with Zeus, but saw only an old brown bear. She still did not trust Zeus and insisted that he return to Mount Olympus. Zeus did not want to go because he wanted to change his girlfriend Callisto back into her human form before leaving. But Hera insisted. So Zeus went with Hera, leaving Callisto as a large brown bear.

Unknown to Zeus, Arcas, Callisto's son who was a great hunter, was out in the woods hunting that day. As chance would have it, he saw this great big brown bear. He put an arrow to his bow, took careful aim, and shot that great bear through the heart. Right before his startled eyes, Arcas watched the bear as it died change back into the form of his mother Callisto with an arrow through her heart.

Arcas began to cry loudly for his mother and what he had done to her. When he realized that it was Zeus that had changed her into the bear, he grew

even angrier. Zeus, fearing that Hera might hear the cries, went down to earth to try to appease Arcas. In order to hide what he had done, Zeus changed Callisto back into a bear and placed her form, as a constellation, into the northern sky as the Big Dipper. He then changed Arcas into the small bear (the Little Dipper).

As Arcas was being placed into the sky, he turned to look at his mother Callisto (now the Big Dipper). That is why the Little Dipper is curved toward the Big Dipper, so that Arcas can watch over his mother Callisto for all eternity.

# A Constellation Story of Your Own

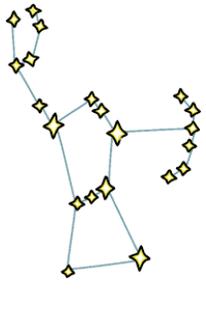
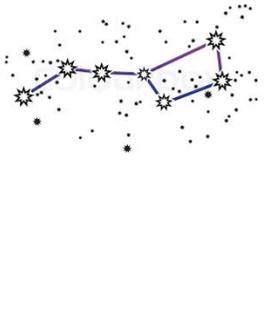
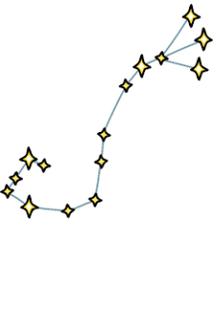
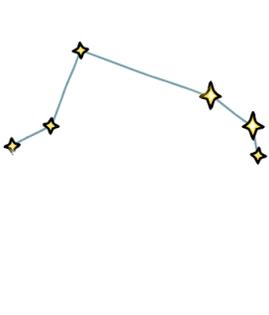
## Activity.

You have just read about constellations and how they are patterns and pictures made of stars to which ancient stargazers gave shape and story. It is now time to try your hand at designing your own star constellation and writing a myth about how it was created. Your constellation can be an animal, a mythological creature, an object, or any other idea you can create.

**Step 1:** Look at the four star patterns below and read the corresponding myth for each constellation.

**Step 2:** Write and create your own constellation and myth. Be sure to include:

- the constellation name
- a picture of the constellation with stars connected by lines as the pictures (see below)
- create an original myth that explains why your constellation is in the sky

			
Orion	Big Dipper	Scorpio	Aries