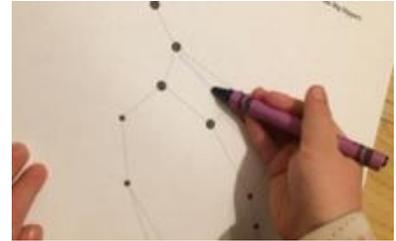


Tracing Constellations

Connect the dots to form pictures in the stars!

Materials Needed:

Tracing Constellations printable sheets (or draw your own), crayon or marker.



Instructions:

Choose one of the printable constellation sheets. Practice connecting the dots (representing stars) with a crayon or marker. Use the dotted lines as a guide. Repeat with other constellation sheets.

Note: Tracing does not have to be precise. Young children will develop fine motor skills over time.

On a clear night, go outside and look at the sky. Can you find any constellations? Look for familiar shapes (the Big Dipper, Orion's belt, Cassiopeia's "W").

What is a Constellation?

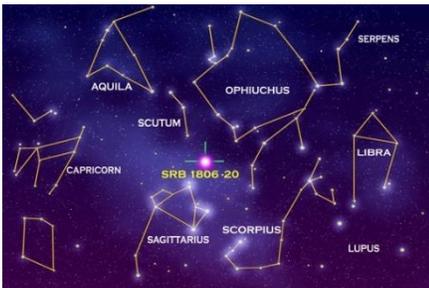


Image: Universetoday.com

A **constellation** is a group of stars that appears to form a pattern or picture. For thousands of years, people across the world have looked up at the night sky and connected the dots between stars. Different cultures have made different constellations from the same stars, often reflecting the people, animals, and objects important in their lives.

In 1925, the International Astronomical Union recognized 88 official constellations. This helps space scientists around the world talk about the same stars without confusion. In other cultures, the stars may be recognized with different patterns. For example, in some Yup'ik cultures, the stars many people know as the Big Dipper form the shape of a caribou (*tunturyuk*) instead.

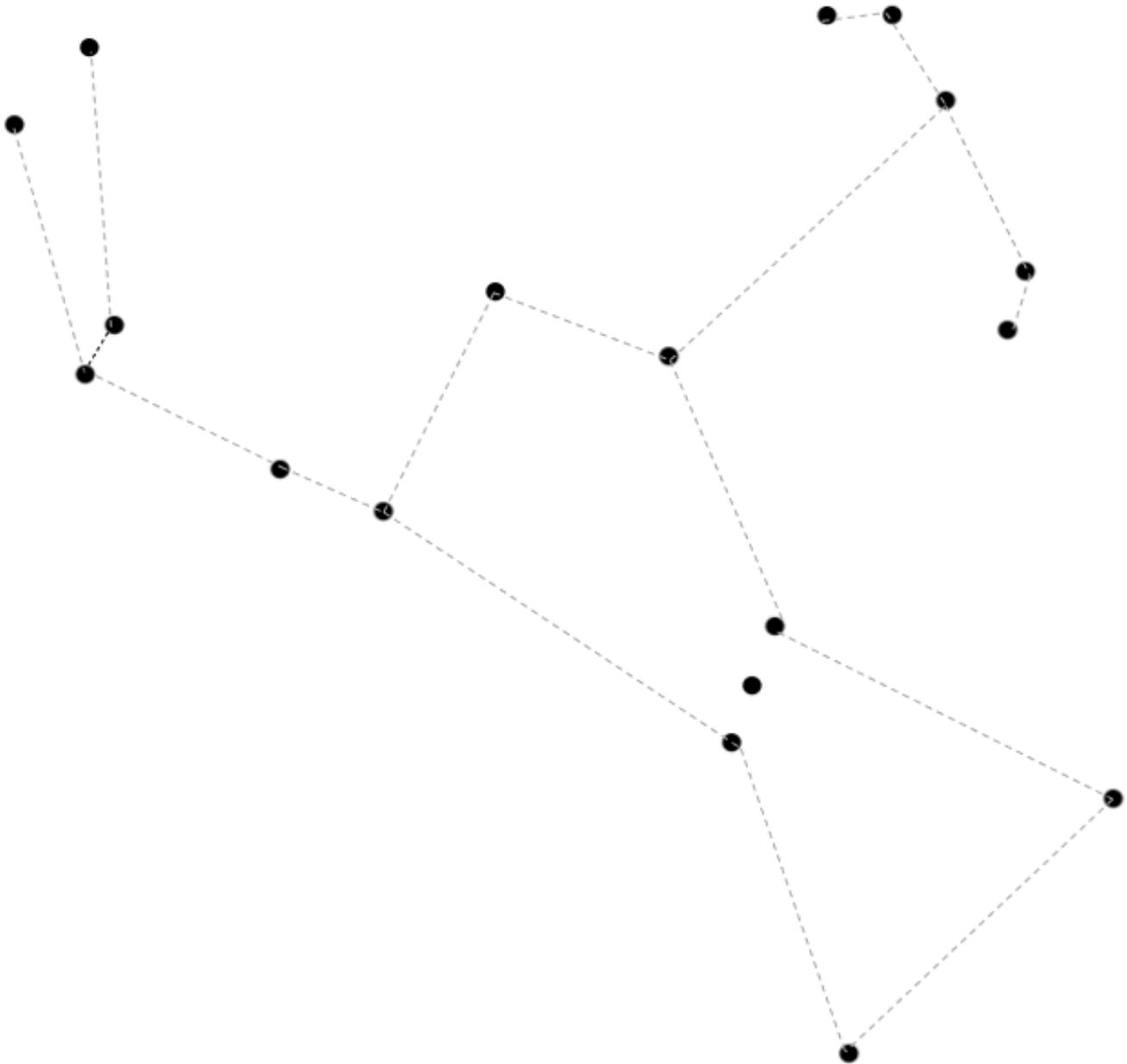


Image: Snappygoat.com

Did You Know? Not all stars in a constellation are near each other. They appear to be close because we are viewing them from very far away, but they are actually billions of miles apart!

Tracing Constellations Printable: Orion

Trace over the lines to connect the dots. The dots represent the main stars of the constellation.

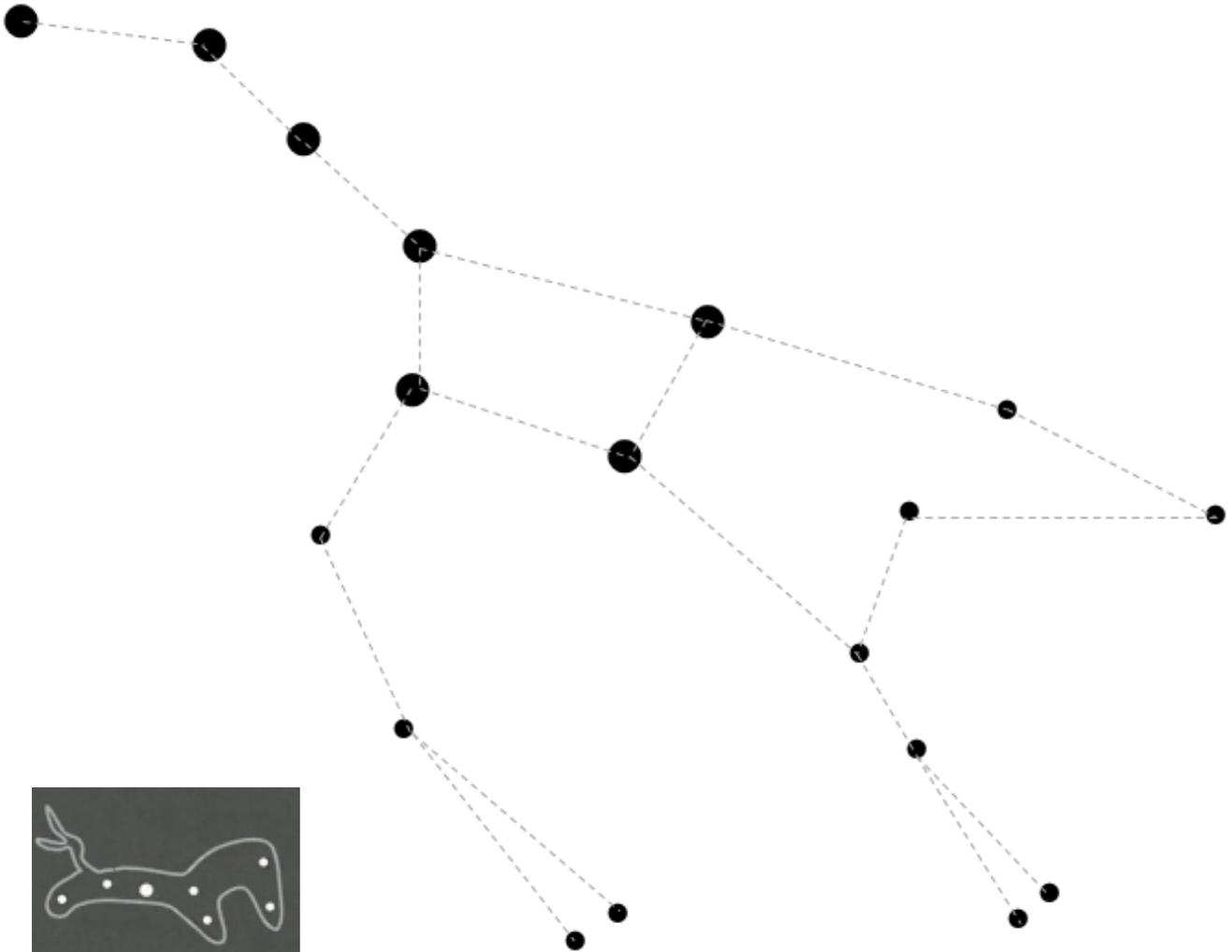


Earthsky.org

In Greek mythology, Orion was a hunter and the son of Poseidon (the god of the sea). Orion includes the star Rigel, which is the 7th brightest star in the sky. Rigel is 773 light years away and shines 40,000 times brighter than the Sun!

Tracing Constellations Printable: Ursa Major

Trace over the lines to connect the dots. The dots represent the main stars of the constellation, with the larger dots showing the Big Dipper.



Star Navigation, Math in a Cultural Context Series, UAF.

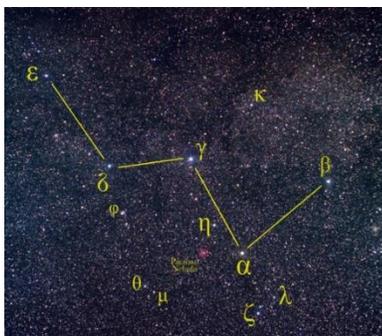
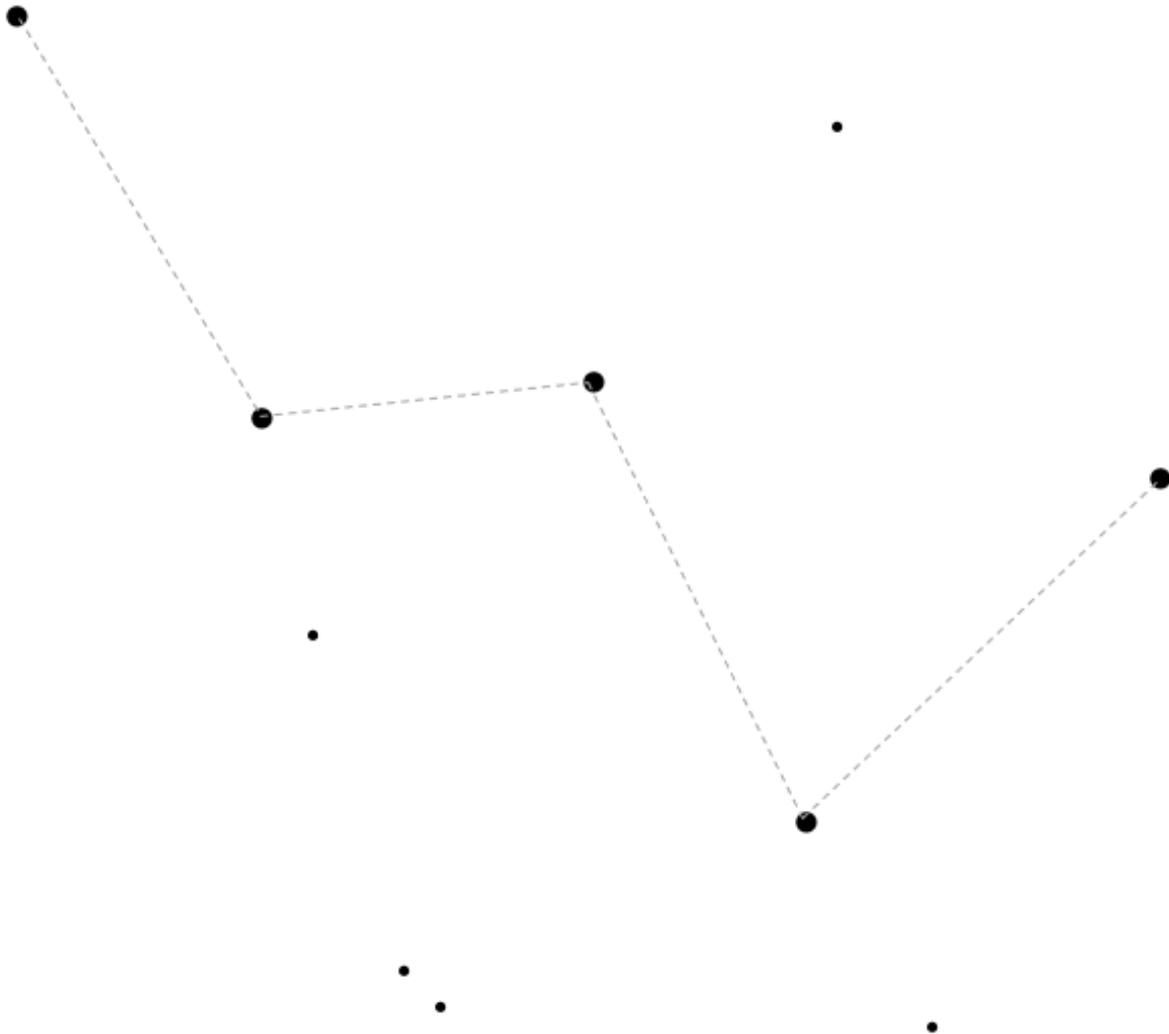


Wikimedia Commons.

Ursa Major is one of the most famous constellations in the Northern Hemisphere night sky. “Ursa Major” means *big bear* in Latin. The group of seven stars on the lower back and tail form the Big Dipper. In Yup’ik cultures, the Big Dipper is known as *Tunturyuk*, the caribou.

Tracing Constellations Printable: Cassiopeia

Trace over the lines to connect the dots. The dots represent the main stars of the constellation.



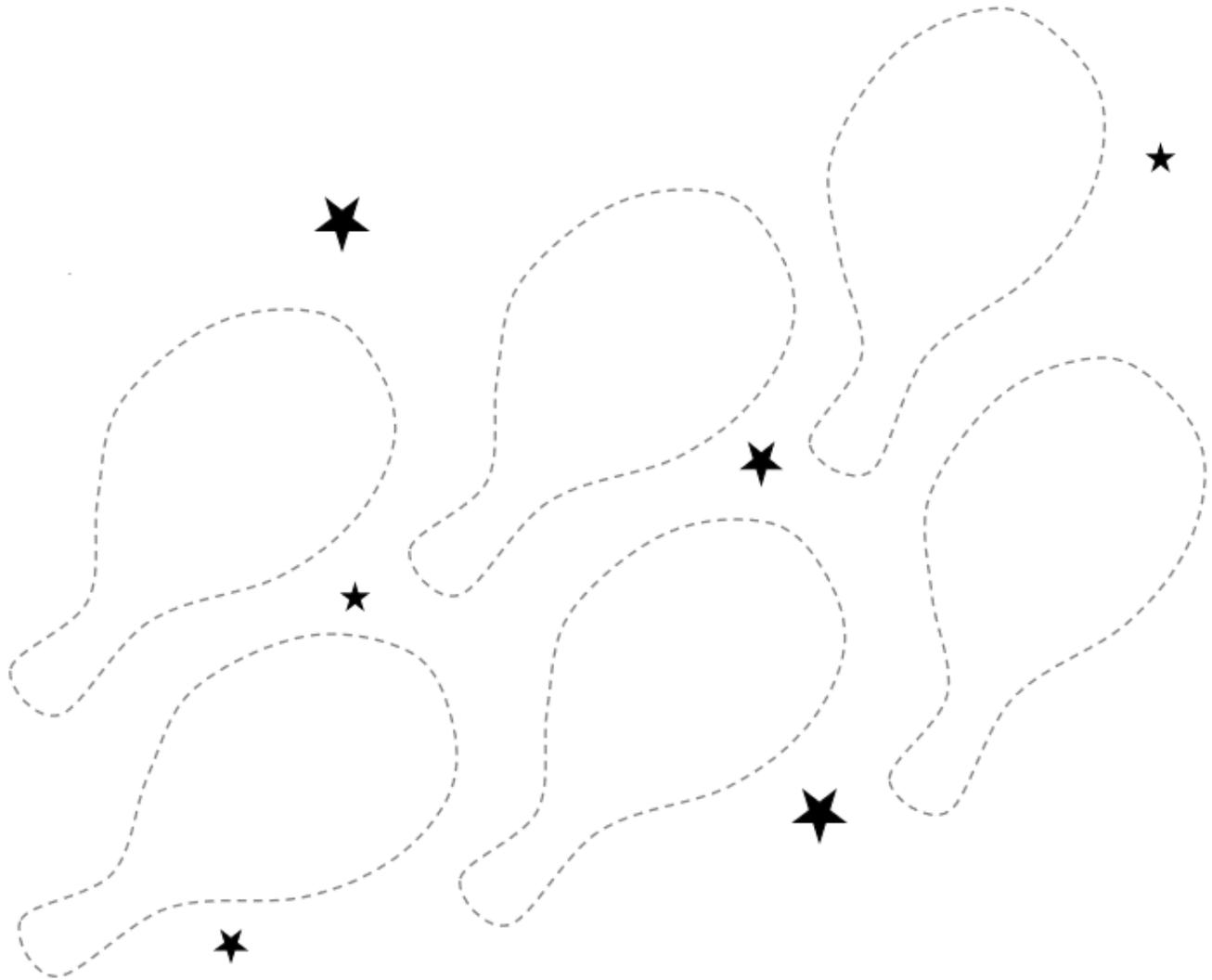
Wikimedia Commons.

Cassiopeia is an easily recognizable constellation because it is shaped like the letter W. Cassiopeia is named after a queen from Greek mythology. In Yup'ik cultures it is known as *Qengartarak*, the Nose with Two Nostrils, and is an important landmark for navigation.

Tracing Constellations Printable: The Milky Way

Although the Milky Way is visible in the night sky, it is actually a galaxy instead of a constellation!

Trace over the lines to draw snowshoes tracks. Add stars in and around the tracks.



Wikimedia Commons.

The Yup'ik story *How Raven Made the Milky Way* explains how Raven snowshoed across the sky in search of light. He left some of the snow on his trail, and the tracks he left behind became the Milky Way.