

CREATE YOUR OWN CONSTELLATIONS

**Light up your living room and learn
the stories of the stars**

What you'll need:

- Constellation templates (provided)
- Scissors
- Paper cups
- A pencil
- A pushpin or other pointed object
- A flashlight (one with a single light bulb will work best)

Create:

1. Print out the constellation templates provided, then use your scissors to cut out your favourite constellation. Trim around the edges of the template until it's about the same size as the bottom of your paper cup.

No printer? No problem! Using the digital template as a guide, use a pencil to draw the constellation on the bottom of your cup.

2. Place your paper cup upside down on your work surface, then place the cut-out constellation on the bottom of the cup.
3. Use your pencil, pushpin or other pointed object to carefully poke holes in the cup through the dots on the template or the marks you drew. Be sure to ask an adult for help with this step!
4. Once you've poked holes through each of the dots, remove the constellation template (if you've been using one). Your constellation cup is ready to shine!
5. Grab your flashlight and turn off the lights. Hold up your cup and shine the flashlight beam through the top towards the constellation pattern to see the stars appear on the surface in front of you. For a sharper constellation, shine your flashlight directly down.

Play:

Play around with your constellation on different surfaces and observe the shapes that appear. Can you think of any new stories about the images you see?

If you come up with any ideas or stories inspired by the star patterns, be sure to write them down. And don't forget to try the activity again with a different constellation!

Learn:

What is a star?

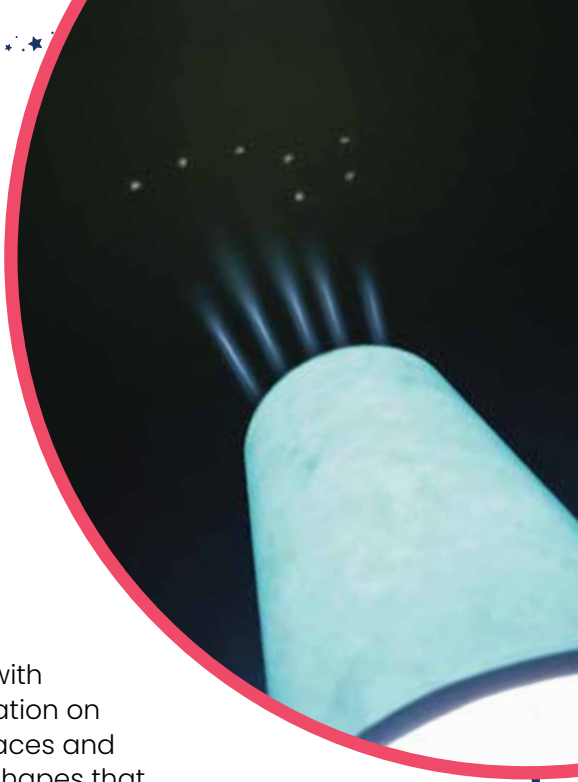


A star is a big ball of very hot gas. This gas is mostly composed of hydrogen. Stars like our Sun give off light and heat energy that is produced at the centre of the star. During the day, the Sun is so bright that we can't see all the other stars in the sky. The stars we see at night are there all the time, though we can only see them when it's dark outside. They look small because of how far away they are.

What is a constellation?

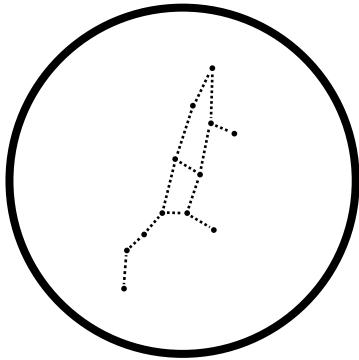


For many years, people have used their imaginations to see patterns, shapes and pictures created by stars in the night sky. These are called constellations, and different cultures have their own names and stories for these star patterns. According to the International Astronomical Union, there are 88 official constellations. Have a look at some of the most popular constellations from different cultures. What shapes do you see?



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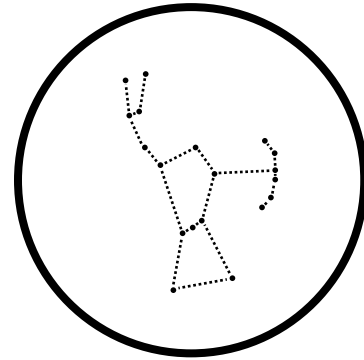
Ojiig the Fisher – Ojibwe,
also known as
Ursa Major the Great Bear – Greek



According to some Ojibwe stories, the birds were held prisoner by ogres. It was the fisher who was able to trick the ogres and free the birds to save spring.

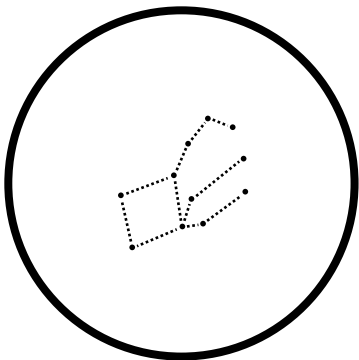
Source: *Ojibwe Sky Star Map Constellation Guide: An Introduction to Ojibwe Star Knowledge*, by Annette S. Lee, William Wilson, Jeffrey Tibbetts & Carl Gawboy

Orion the Hunter – Greek



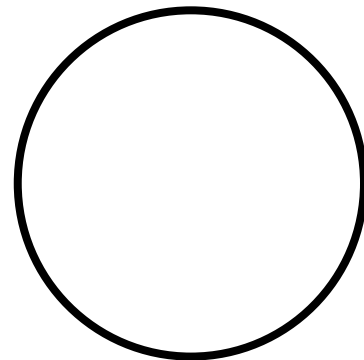
According to Greek mythology, Orion was a hunter. A scorpion named Scorpius was sent to hurt Orion to keep him from hunting other animals. At night, you can see the constellation of Scorpius sneaking up on Orion's constellation on the opposite side of the sky.

Pegasus – Greek



In Greek mythology, Pegasus was a winged horse who was loyal to the Gods. He helped save Andromeda, an Ethiopian princess. Can you see the square in this constellation? This is called the Great Square of Pegasus.

Create your own constellation!



Create your own constellations and stories to go with them, and don't forget to share them with the Science Centre on social media!