

# Ames Public Library @HOME Activities

## Astronomy

Astronomy is the scientific study of the universe beyond the Earth's atmosphere. Ancient astronomers studied the planets and the stars to make calendars and to guide them on their journeys. To learn more see a related video on the Library's YouTube Channel at <http://bit.ly/APLvideos>.

### Books and Media:

Title	Author / Performer	Call Number
<i>The New Astronomy book</i>	Faulkner, Danny	J 213 FAU
<i>Astronomy</i>	Becklake, Sue	J 520 BEC
<i>Astronomy</i>	Bone, Emily	J 520 BON
<i>The Young Astronomer</i>	Ford, Harry	J 520 FOR
<i>Astronomy</i>	Green, Dab	J 520 GRE
<i>Eyewitness Astronomy</i>	Lippincott, Kristen	J 520 LIP
<i>The Usborne Internet-Linked Book of Astronomy &amp; Space</i>	Miles, Lisa	J 520 MIL
<i>Out-of-this-World Astronomy: 50 Amazing Activities &amp; Projects</i>	Rhatigan, Joe	J 520 RHA
<i>Sky Gazing: A Guide to the Moon, Sun, Planets, Stars, Eclipses, Constellations</i>	Thacher, Meg	J 520 THA
<i>Night Sky</i>	Stott, Carole	J 522 STO
<i>Once Upon a Starry Night: A Book of Constellations</i>	Mitton, Jacqueline	J 523.8 MIT

### Websites:

URL	Notes
<a href="https://www.nasa.gov/audience/forstudents/k-4/dictionary/Astronomy.html">https://www.nasa.gov/audience/forstudents/k-4/dictionary/Astronomy.html</a>	Check out the Astronomy Picture of the Day.

## **Take Away Kit: Constellation Cards**

### **Bag Contents:**

- 3 constellation cards

The word constellation comes from the Latin word that means a set of stars.

There are 88 constellations in total; some are small and others fill the entire night sky. Each of the cards in the kit has a constellation on it and also the story associated with that constellation. With a grown up, go outside when it is really dark and try to identify the constellations on your cards. Sometimes you may be able to identify part of a constellation.

You can also check out some of the books in the Library on astronomy and learn to find other constellations and the stories associated with them.

## Vocabulary

Asteroid – A small object made of rock and up to 620 miles in diameter.

Comet – A small object made of rock and ice that follows a long orbit around the Sun. As it approaches and is heated by the Sun, a comet may release gas and dust in a glowing tail that streams away from the Sun.

Constellation – An area of the sky named after an animal, person, monster or non-living object. The name is usually based on the outline or shape the stars appear to make.

Astronomers have divided the sky into eighty-eight constellations.

Equator – An imaginary line that runs around the middle of Earth and divides it into two hemispheres.

Galaxy – An immense group of stars, dust, and gas held together by gravity and separated from other galaxies by vast areas of space.

Hemisphere – This word means “half-sphere” in Latin. The Earth is divided along the equator into two half-spheres: the northern hemisphere and the southern hemisphere.

Countries above the equator are in the northern hemisphere and countries below the equator are in the southern hemisphere.

Milky Way – A band of sparkling light across the sky, made up of innumerable stars. The galaxy that Earth is located within.

Orbit – Is a repeating curved path that one object in space takes around another, for example the Earth orbits the Sun.

Star – A very hot space body, made mostly of hydrogen and helium gas that produces and emits its own light.

(Source: Seeing Stars by Sara Gillingham, J 523.8 GIL)



Hello! Welcome to this week's at home activity. Today we are going to talk about stars. On a clear night when you look up at the night sky you may see the moon, planets and many, many stars. Some may glow and look bigger, others may seem really small and even twinkle. You may also notice that some form patterns like a dot-to-dot pattern. Ancient people used these patterns to and marked the way the stars moved across the sky as the seasons changed. They used this information to make calendars and these calendars helped farmers plant their crops. The stars were also used by travelers to find their way around to different places, this is of course before GPS systems we use today, in fact you could say the stars were the original GPS system.

So what does this have to do with our at home activity? Well in your kit you will find three cards, they have a constellation marked on one side and on the other is the story associated with it. We encourage you to go out on a clear night you may have to drive a little as you don't want to be in an area with a lot of artificial light and try and locate the constellation you can also try and find new other ones or new ones. So stop by at the library pick up your kit and have fun exploring the night skies.

