

# Nature Adventures

with NC's 4-H Camps

A virtual learning program for educators and families

## Stories in the Stars Astronomy Discussion & Learning Guide

**Directions:** Follow along and look for answers to the questions below as you participate in the program. If you have others you are working with, answer the questions together.

- 1) What are the current astronomical events happening at the time of the program? **In October of 2020, the month will have two full moons and two meteor showers. The Orionids meteor shower will peak on October 21 and 22, while the Southern Taurids meteor shower will peak on October 29 and 30.**
- 2) True or False: A new moon occurs when the Sun and the Moon are in line with each other, obscuring the reflective light of the moon from our perspective on Earth. **True. This means that new moons are not visible and are characterized by a dark night sky. New moons make it easier to see constellations, asterisms, meteor showers, etc.**
- 3) What is the difference between a meteoroid, a meteor and a meteorite? **Meteoroids are small objects in space made of ice, dust and sometimes metals. When a meteoroid enters the Earth's atmosphere and burns up, creating a shooting star, we call them meteors. When a meteoroid survives the trip through the atmosphere and makes it to the ground, it is called a meteorite.**
- 4) What constellation do the meteors of the meteor shower discussed in the program appear to come from? What is this point called? **The Southern Taurids meteor shower appears to come from the constellation Taurus. This is called the radiant point of a meteor shower.**
- 5) What is the difference between a *constellation* and an *asterism*? Give an example of each. **A constellation is a grouping of stars recognized and agreed upon by scientists and people all over the world. There are only 88 official constellations. An asterism is a smaller grouping of stars *not* officially recognized the world over. For example, Ursa Major (The Great Bear) is a constellation, while the Big Dipper is an asterism, formed by *some* of the stars of the Ursa Major constellation.**
- 6) What is a myth and how do myths relate to the night sky? **A myth is a tale that plays a fundamental role in a particular society or culture. Humans have been looking up at the night sky for thousands of years and telling stories, or myths, about what they find there.**