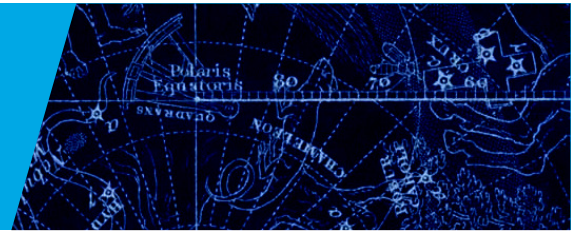


CURIOSITY AT HOME

MARSHMALLOW CONSTELLATIONS

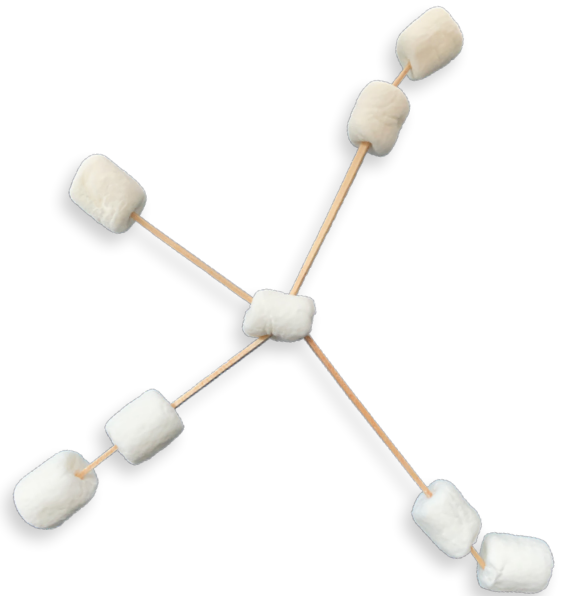
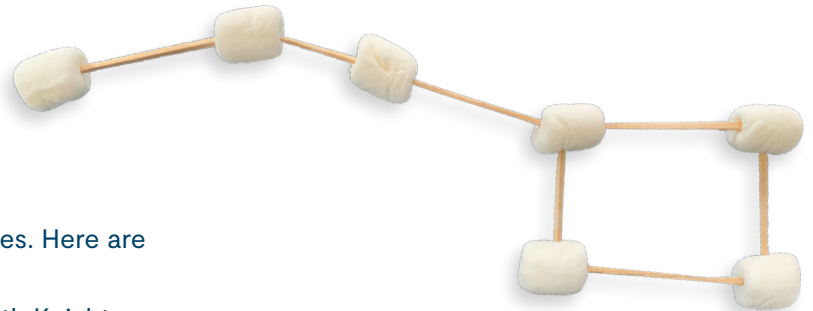


Have you ever noticed patterns in the night sky, such as how stars appear to move over the course of a night, or the way the sky changes from season to season? Constellations, or imaginary shapes made from connecting stars together, can help us better observe

these patterns in the sky. Different groups of people from all over the world have named and told stories about constellations since time immemorial and have used these shapes to navigate and tell time. Make a constellation model and story in this activity.

MATERIALS

- Miniature marshmallows (substitutes: clay, playdough, gumdrops)
- Toothpicks (substitutes: dry spaghetti)
- Black construction paper
- Glue
- Paper or science notebook
- Something to write with
- Books or online resources on constellation stories. Here are some recommendations:
 - *Usha and the Big Digger* by Amitha Jagannath Knight
 - *Sharing the Skies: Navajo Astronomy* By David Begay and Nancy C. Maryboy
 - *Bright Sky, Starry City* by Uma Krishnaswami
 - *The Forever Sky* by Thomas Peacock (*content warning: this story is about mourning a lost family member*)
- Online resources:
 - [Native Skywatchers](#)
 - [Sky Tellers](#)
 - [Revolving Sky](#)
 - [Windows to the Universe](#)
 - [Indigenous Knowledge Institute Astronomy Resources](#)



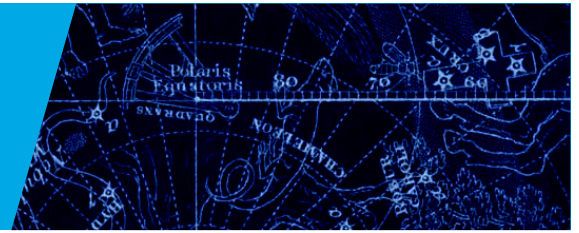
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PROCEDURE

- In books or online, read about some constellations.
- Select a favorite constellation that you want to make a model of.
- Marshmallows will represent the stars and toothpicks will represent the imaginary lines connecting the stars in your model.
- Count the number of stars in the constellation. This is the number of marshmallows you need.
- Use the toothpicks to connect the marshmallows together, making the shape of your constellation. You may have to break some toothpicks to connect stars that appear close together.
- Glue the marshmallows on the black paper to mount your constellation.
- Record some information about your constellation on paper or in a science notebook, such as the name and story of the constellation. What culture is the story from? In what part of the world is this constellation visible? What time of year can you see the constellation?
- Learn a different story about your constellation from another culture. In what ways are the stories similar? In what ways are they different?
- Share your constellation with someone else.

EXPLORE MORE

Gather new marshmallows and toothpicks and make a new constellation in any shape you can imagine.

- Put this new constellation on a piece of white paper, and draw more details about the constellation on the page. For example, if your constellation is an animal you could draw in details like feathers, fur, or teeth.
- Write a story about your constellation. Your story can explain what your constellation is, what it does, how it moves, how it got into the sky, and its name.
- Why do you think people tell stories about these shapes in the sky?

DID YOU KNOW?

Currently, the International Astronomical Union recognizes 88 official constellations. These constellations are mostly from Ancient Greek astronomical recordings, which were influenced by Islamic astronomy; in fact, many star names are Arabic.

The boundaries of the constellation are more than just the shape, but also designate a region of space. Every part of the sky you see is part of one of these 88 constellations. Astronomers use these constellations like a map, marking where particular stars and other celestial objects are located.

Some common shapes are just a part of a constellation and are called an asterism. The Big Dipper is an asterism; it's a familiar shape, but it's only a part of the constellation Ursa Major, or the Big Bear.



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K-2 GRADE EXPLORATION

Here are some questions you can explore together.

- Do you have a favorite constellation? Why is it your favorite?
- What other objects could you use to represent stars and imaginary lines in your constellation model? Use rocks and sidewalk chalk outside, pinecones and sticks, or other objects to create more models of constellations.
- Notice the sky throughout the day and evening. What patterns do you notice? Do some things change? Do some things stay the same?



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