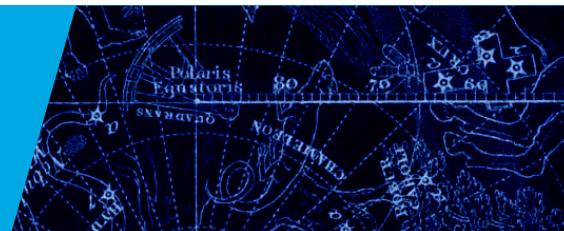


# CURIOSITY AT HOME

## MARSHMALLOW CONSTELLATIONS



Constellations are imagined shapes in the sky made from connecting stars together; people all over the world have named these constellations, and told stories to explain how these constellations got into the sky and to remember the locations and movement. There are 88 constellations officially recognized by the International Astronomical Union. These constellations are from Ancient Greek

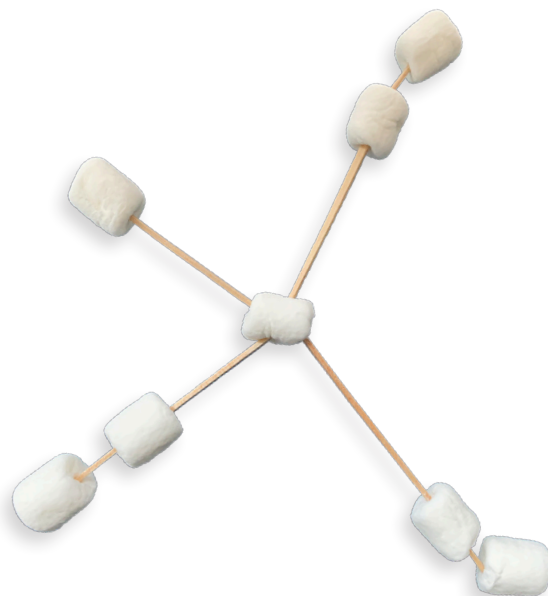
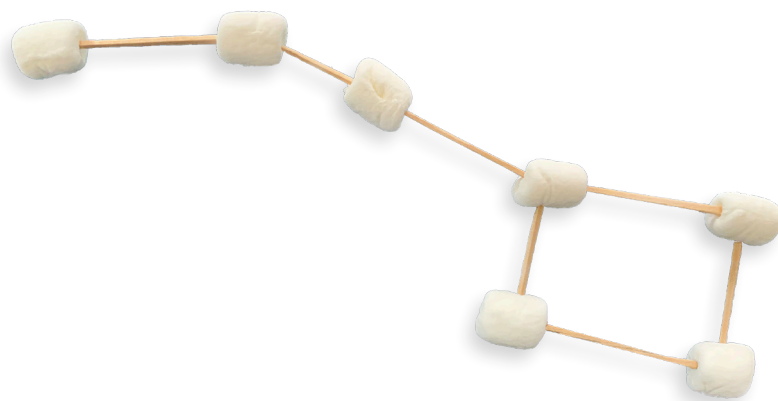
astronomy, which was influenced by Islamic astronomy; in fact, many star names are Arabic! Some constellations may be familiar to you because they are big and are very well known, like Orion, the Big Bear and Leo the lion. Other constellations may be less well known to you. Learn about some constellations and make 3D models of your favorite constellation.

### MATERIALS

- Materials
- Paper or science notebook
- Pencil
- Miniature marshmallows
- Black construction paper
- Glue
- Toothpicks
- Samples of various constellations and myths for ideas (possible sources include *Classic Myths to Read Aloud* by William F. Russell, Ed. D. and *365 Starry Nights* by Chet Raymo)

### PROCEDURE

- In books or online, read about some constellations.
- Select a favorite constellation that you want to make.
- 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.
- Share your constellation with someone else, and tell them the story about your constellation. What culture is the story from?
- Learn a different story about your constellation from another culture. In what ways are the stories similar? In what ways are they different?



*Experiment continued on next page...*



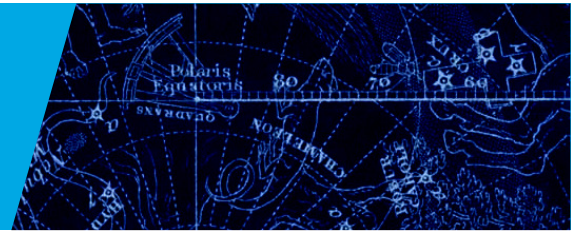
Show us how you're being curious! Share your results with us.

PACIFIC  
SCIENCE  
CENTER



# CURIOSITY AT HOME

## MARSHMALLOW CONSTELLATIONS



### TRY THIS

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.

### DID YOU KNOW

Constellations are imagined groups of stars in the sky that make shapes. Different groups of people all over the world have created these constellations. Currently, the International Astronomical Union recognizes 88 constellations. The official boundaries of the constellation are more than just the shape, but also includes 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 objects or particular stars 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.



Show us how you're being curious! Share your results with us.



# CURIOSITY AT HOME

## MARSHMALLOW CONSTELLATIONS



### K-2 GRADE EXPLORATION

Here are some questions you can explore together.

- Do you have a favorite constellation? Why is it your favorite?
- Using sidewalk chalk and rocks, draw your constellation outside. Be sure to write its name!



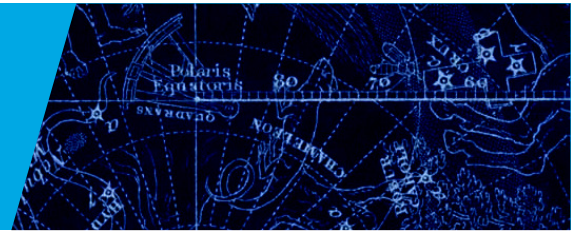
Show us how you're being curious! Share your results with us.

PACIFIC  
SCIENCE  
CENTER



# CURIOSITY AT HOME

## MARSHMALLOW CONSTELLATIONS



### 3–5 GRADE EXPLORATION

Explore the following questions and write your observations in your science notebook.

- Draw your constellation in your notebook. When is your constellation visible in the sky? Could you see it tonight, or would you have to wait until a different time of the year? Would you have to go to a different location on Earth to see it?
- Using sidewalk chalk, draw your constellation outside. Learn the shapes of several other constellations and draw them too, making a constellation show people walking by!



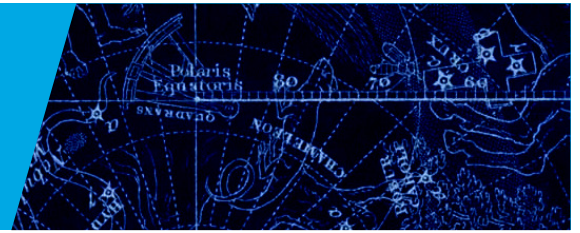
Show us how you're being curious! Share your results with us.

PACIFIC  
SCIENCE  
CENTER



# CURIOSITY AT HOME

## MARSHMALLOW CONSTELLATIONS



### 6–8 GRADE EXPLORATION

Explore the following questions and write your observations in your science notebook

- When is your constellation visible in the sky? Could you see it tonight, or would you have to wait until a different time of the year?
- Draw your constellation in your notebook, and label the names of each star and the distances of each star from earth. Are they all the same distance away? Are two stars that seem close together actually close together?
- This constellation has the stars (the marshmallows) arranged on a flat surface so that they are all the same distance from you. Can you make your constellation again so that it is a 3-D shape; it shouldn't lie flat on the paper, but still can look like the constellation when viewed from above. How does it look when viewed from other angles?



Show us how you're being curious! Share your results with us.

PACIFIC  
SCIENCE  
CENTER

