

DAISY BADGES TO DO AT HOME



Space Science Explorer

Space scientists are people who study outer space—what’s in the sky. In this badge, you can be a space scientist as you look at the sky and talk about what you see!

Steps

1. Explore the Sun
2. Observe the Moon
3. Meet the stars

Purpose

When I’ve earned this badge, I will have explored and observed the Sun, Moon, and stars.

To earn this badge, please complete one option per step.

STEPS	BADGE REQUIREMENTS	OPTION 1	OPTION 2
Step 1	Explore the Sun.	<p>Make a day sky book. Go outside and look at the sky three times during the same day. You could do it after breakfast, after lunch, and near dinnertime. Do not look directly at the Sun though! Just like a scientist, make a prediction (guess) for what the sky will look like each time you go outside. Then, see if your guesses were correct. Scientists check their guesses (predictions) all the time—that’s how they learn. Draw pictures of what you see at the different times of day. Does the sky look different each time you go outside? How? Did the colors or clouds change? Talk about the sky with your family.</p>	<p>Make a shadow poster. On a sunny day, go outside and stand in front of a big piece of paper—big enough so that you can see your shadow on it. You may need to tape a few pieces together. Use tape or rocks to keep the paper in place, then have a family member trace your shadow or place small rocks around its edges. You’re going to come back to your poster in a bit. When you do, you’ll want to stand in the same place. So, be sure to mark your feet—this way you’ll remember where you were standing. Do you think the shadow will look different later in the day? What will it look like? Make a prediction (guess). Later in the same day (wait at least an hour), stand in the same place and have your family member make new marks around your shadow. Talk about what you see! Was your guess (prediction) right? Scientists check their guesses (predictions) all the time—that’s how they learn.</p>

Step 2	Observe the Moon.	<p>Make a Moon sky book. This book is for recording what you see. Go outside with an adult three times and look at the Moon. You can either do it three different times during one day or night, or three days or nights in a row at the same time. Before going outside, make a prediction (guess) for what you think the Moon will look like. Then, go outside and draw what you see. Were your predictions correct? At this website, you can see how the Moon appears to us at different times each month. Which Moon phases do your pictures look the most like? Share your pictures and Moon shapes with your family.</p>	<p>Take a closer look. Space scientists use different kinds of tools to help them see the Moon better. You can use binoculars to look at the Moon like scientists do! When the Moon is up in the sky, ask an adult to take you outside and use binoculars to look at the Moon. Does the Moon look different when you look at it through binoculars? How?</p>
Step 3	Meet the stars.	<p>Make a pretend telescope. A telescope is a tool that scientists can use to study the stars by making distant things seem brighter and bigger. Make a pretend telescope by decorating a toilet paper tube or rolled-up piece of construction paper. (You can even paint stars on it!) Then take your “telescope” outside on a clear night, with an adult, and look through it at the stars as you use your creativity to pretend you’re a NASA scientist.</p>	<p>Make a star pattern. For as long as people have been looking at the sky, they’ve found patterns and shapes in the stars. These patterns are called constellations. People from all cultures made up stories about these constellations and would use them as a map to tell directions. Make a star pattern of your own—in the shape of you! Lie down on a piece of paper and have a family member draw stars on the paper at a few different points around your body. Don’t have big paper? Try using a smaller part of you, like your hand. Can you tell it’s you? What else does it look like? The stars give a general outline of the original shape and we use our imagination to fill in the outline—just like a constellation!</p>

TIPS: more fun places to explore space science!

Watch the famous Patterns in the Sky video to learn all about stars:
<https://www.generationgenius.com/videolessons/patterns-in-the-sky-video-for-kids/>

Get a crash course on all things stars! Play games and test your skills.
<https://www.solarsystemscope.com/>

Download Google Sky Map and check out the stars above! Simply hold your phone towards the night sky and stars like never before seen will start to appear. It's incredible!