

Daisy Space Science Explorer: Step 2

Purpose: Daisies learn how the Moon looks in the day and nighttime sky and how it changes shapes in step 2 of the Space Science Explorer badge. They learn how to record their observations of the Moon by creating their own Moon sky book.

Setup: Have you ever noticed that the shape of the Moon can look different on different days? What do you think is happening? The Moon doesn't actually change shape, but how much we see lit up does change! The Moon orbits (moves around) the Earth, and because of that, the Sun lights different parts of it. This makes the Moon look like it is changing shape. These changing shapes are called the "phases of the Moon."

Please download and review the [Moon resource sheet](#) (PDF) with an adult to learn some facts about the Moon before you begin the activity.

Activity: To get started with your Moon sky book, gather at least four sheets of paper, pencils, markers, crayons, glue, stickers, stapler, or simple binding materials.

Begin by decorating the cover of your Moon sky book. Be creative—your book should represent your unique personality!

Next, make a plan to go outside with an adult on two different days or nights when you can see the Moon in the sky. Or, go outside with an adult at two or three different times on the same day. Think about open spaces just outside your home, such as your backyard, front porch, or a garden area of your apartment building. Or, you can stay inside and look out your window.

Before going outside or looking out your window each time, make a prediction (guess) of what you think the Moon will look like. Then, draw what you see.

Have an adult help you write down the dates and times you've observed the Moon, and any thoughts you have about the Moon.

Be a good scientist and check your predictions. Were they correct? Why or why not? What is your prediction (guess) if you were to look at the Moon one more time?

If you can't find the Moon, ask an adult to help you go to NASA's website and look at two different pictures of the Moon. Then, draw what you see!

After recording the Moon a few nights, you can now bind your pages together and create a Moon sky book with them. You can punch holes and tie the pages together with string, or you could staple them—whatever works best for you!

Now you can share what you saw with others, just like scientists do!