

Have you ever wondered about the moon? It is a common sight in the sky, but what do we really know about it? This local resource guide will help you explore common questions about the moon.

WHAT IS THE MOON ANYWAY? - QUICK FACTS

How far away is the moon from Earth? The moon is close to 240,000 miles from Earth!

How old is Earth's moon? The moon is "younger" than Earth, but still billions of years old.

How big is Earth's moon? Earth's moon is over 2,100 miles in diameter (which is one-third the width of Earth)! While that is big, there are four other moons in our solar system that are even bigger! The biggest moon in our solar system is **Ganymede** (orbiting Jupiter) which is over 3,200 miles in diameter.



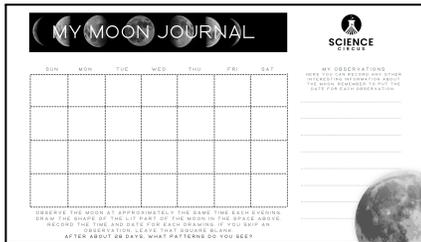
Photo by J. Collier

OTHER COMMON QUESTIONS ABOUT THE MOON

Question	Picture	Information
Why can you sometimes see the moon during the day?	 <p>Photo by L. Swanson</p>	We see the moon because it can reflect sunlight off of its surface. The moon can shine (i.e. reflect sunlight) bright enough to be seen during the day or night. We see the moon during the day when it is in the right part of the sky. For more about where to look in the sky to see the moon during daylight, check out this short explanation by Sarah Noble, moon expert from NASA.
Why does the moon seem to change shape?	 <p>Photo by L. Swanson</p>	The moon cycles through different "phases" - sometimes it appears we can see the whole moon, and at other times we cannot see anything at all! Half of the moon is always lit by the sun. However, people on Earth see a different amount of this lit portion of the moon depending on the relative position of the sun, Earth, and moon.
Why does the moon look really big when it is close to the horizon?	 <p>Photo by K. Brooks</p>	The moon does not change size, but it looks larger close to the horizon because of the way our brain makes sense of information. Being in close proximity to the ground makes the moon appear a lot closer than it actually is. Find a way to confirm the moon does not change shape with NASA's The Moon Illusion .
Why does the moon have dark spots on it?	 <p>Photo by K. Brooks</p>	The dark spots are craters that were made by comets, asteroids and meteoroids that have crashed into the moon's surface. These craters are also called maria . The term mare is Latin for "sea." Earlier astronomers mistook these craters for actual bodies of water!

Want to know more? Check out [NASA's answers](#) to the frequently asked questions.

ACTIVITY 1: MOON JOURNAL



Observe the moon at the same time each evening. Draw how the lit part of the moon looks. For each drawing, record the date and time. If you do not see the moon one evening, skip that space. After about 28 days, what patterns do you see with your drawings?

For this activity, you can use a blank piece of paper. We have also provided a moon journal that you can print out as well ([click here to download](#)).

ACTIVITY 2: MOON ART

Once you have created your moon art, pick a couple of pictures of the moon that you would like to use as inspiration for your art. You can use construction paper, markers, paint or crayons. Or you can try the activity below with aluminum foil!

Materials needed: Aluminum foil (cut into a circle); Coins or circles of various sizes; Black construction paper; White crayons.

Directions:

1. Cut a circle out of aluminum foil that is approximately 6 inches in diameter.
2. Find coins or other circles of different sizes. Place them under the moon and gently rub your finger over the circumference to create the outline.
3. Carefully glue the aluminum foil to a piece of black construction paper.
4. Decorate the black construction paper with stars using the white crayon.



EXTENSIONS

Want even *more* activities about the moon?

- Watch Emily Morgan's [YouTube video](#) (4 minutes) that demonstrates how we perceive the lit portion of the moon. You can recreate this demonstration with a lamp and small ball (e.g., foam ball or baseball).
- Watch Dynae Fullwood's (NASA) [YouTube video](#) (5 minutes) that shows you how to mimic the impact craters found on the moon's surface.

