

# MOON JOURNAL

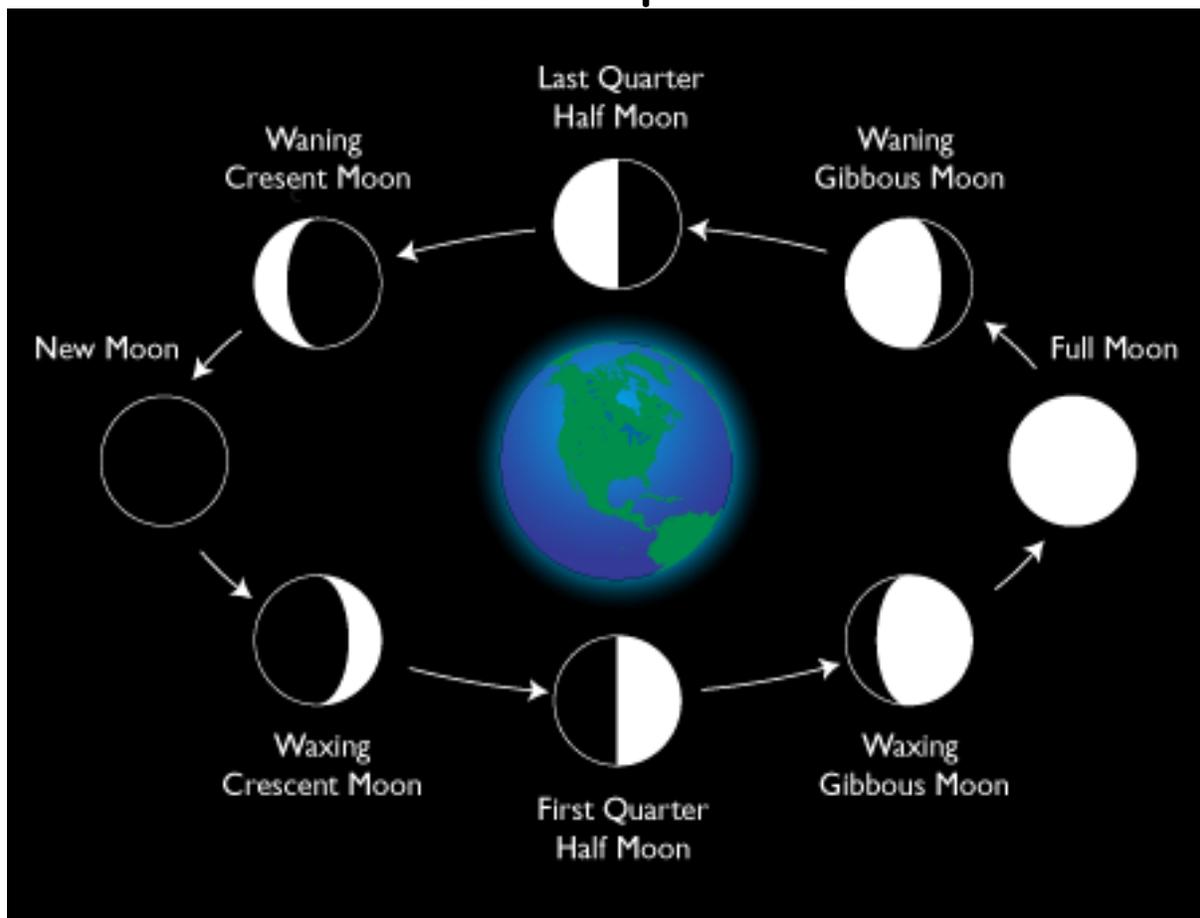
Does the moon always look the same? Have you ever wondered why it changes colors and shapes? Now is your chance to find out.

## Information about the moon:

The moon orbits around the Earth approximately 29.5 days. Because of this, the moon rises later every day/night, and its phase changes a little bit every day/night.

The Phase of the moon is determined by the angle between the sun and the moon in the sky. As the moon orbits the Earth, sometimes the moon appears close to the sun in the sky (crescent phase), and sometimes it's far from the sun in the sky (gibbous or full phase). Because the moon is a sphere, half of the moon is lit up by the sun at any given time, but we can't always see the side that the sun is shining on. So the phase we see on the Earth depends on how much of the sunlit side of the moon we can see.

## There are 8 different phases of the moon:



## **GOAL/OBJECTIVE:**

**YOUR** goal for this activity is to create a moon journal. For the next 2 weeks you will be making observations of the moon. Your job is NOT to explain what causes the moon to change phases, but to simply make OBSERVATIONS of the moon.

## **ACTIVITY:**

You will be creating a Moon Journal based on your observations of the moon. Remember this will be YOUR journal of YOUR observation to share with me. YOU can make YOUR journal as fun and creative as you want. You can write down about your observations, take pictures, draw, cut different moon phases magazines or any other pictures you may find.

During YOUR observation you must do the following:

1. Write down the day of the week.
2. Write down the time you are making your observation.
3. Write down the location where you are making your observation.

The rest is up to you. TIPS: you can write down how you were feeling that day and also about any questions you may have.

## **TIPS AND INFORMATION TO CONSIDER:**

- Sometimes we see the moon in the daytime, sometimes we see the moon at night, and sometimes we can't see the moon in either the day or night sky.
- We see a pattern in the changes in the Moon's apparent shape which takes about a month. The pattern of change observed in the shape of this illuminated portion of the visible side of the moon is what is called the Phases of the Moon.
- The moon is not always in the same place in the sky each day/night. The moon rises, on average, approximately 50 minutes later each day/night.

# VOCABULARY

## **NEW MOON:**

The moon is totally black as viewed from Earth as its lighted side is facing away from the Earth toward the Sun.

## **WAXING MOON:**

When the easily visible portion of the Moon is growing larger day after day.

## **WANING MOON:**

When the easily visible portion of the Moon is growing smaller day after day.

## **GIBBOUS MOON:**

More than half of the Moon's visible side is illuminated by the Sun.

## **CRESCENT MOON:**

Less than half of the Moon's visible side is illuminated by the Sun.

## **QUARTER MOON:**

When exactly half of the side of the Moon which is facing the Earth is illuminated by the Sun. Since this is half of the half of the Moon that is visible, this is in fact a "quarter" of the Moon's surface. The Moon is also a quarter of the way around the Earth from a New Moon.

## **FULL MOON:**

The entire visible side of the Moon is illuminated by the Sun.

## References

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