



We have been learning about the moon in science class lately. To help my studies, I have decided to observe the moon for one month and keep a log of what I see. I will write in my log every week.

Week One

I started my observations when the moon was new. A new moon is not visible from Earth. Of course, the moon is still present in the sky, but it's not reflecting any sunlight that we can see. (Sunlight hitting the moon and bouncing onto Earth is what allows us to see it.) When it is located between Earth and the Sun, the moon receives a lot of sunlight, but the sunlight strikes the side of the moon we can't see.

Over the next week, the moon seemed to be growing larger, or **waxing**. First, the moon was a waxing crescent; then, it entered the first quarter phase. During this phase, I could see only half of the moon (the right half).

Week Two

This week the moon continued to grow larger, or wax. It moved from the first quarter phase to the waxing gibbous phase. **Gibbous** means the moon appears greater than a half circle, but smaller than a full circle. At the end of this week, the moon moved into its fourth phase, the full moon. This was the first time I've paid such close attention to the full moon, and it's really spectacular. The night sky was so bright that I could see shadows on the ground. At this phase, Earth is between the Sun and the moon, and the side of the moon that we see is entirely illuminated by the Sun. This sunlight reflects off the moon and is visible to people on Earth.

Week Three

During this week, the moon started to appear smaller. When the moon seems to grow smaller, it is said to be **waning**. The moon goes through the opposite phases that it went through the last two weeks. This week, I watched the moon seem to shrink a little each night. First I saw a waning gibbous moon, and tonight the moon is in the third quarter phase. A third quarter moon is easily confused with a first quarter moon, because during both phases the moon is half-illuminated.



This is a waxing gibbous moon.



Watching the moon is a great hobby.

Field Log: Moon Watching

The main difference is that the third quarter moon shows its left side, and the first quarter moon shows its right side.

Week Four

This week the moon continued to wane. It moved from the third quarter phase to the last phase, called a waning crescent. The sliver of moon became smaller and smaller, until it disappeared 28 days after I started my observations. Of course, I know the moon didn't really disappear. But we can't see the sunlight it's receiving. It's back to where it started 28 days ago!

This is my last week of watching the moon for my science log, but I'm sure I'll continue gazing at the moon. It's fun to think about the relative positions of the Sun, moon, and Earth. Moon watching is also a great hobby because the moon is so beautiful in the night sky.



The moon goes through many different phases.