



# SUPERMOON



"Do you know what the supermoon is?" our teacher asked us. Some had heard of it but others, like me, had no idea.

"Okay, guys," he said, "I'm going to give you this assignment." Starting today and even during the weekend, look at the moon every night and you'll see that it will be bigger and brighter than normal. On the 14<sup>th</sup> when it reaches its full phase, it will look larger, which is why it's called a supermoon. It hasn't looked like this since 1948.

Every night, my friends, Rosita, Juan, and Anita, and I watched it. Since we were not experts, we didn't notice the difference from other full moons; it just seemed brighter.

We took advantage of the task of watching the moon to enjoy the nights, we told stories of werewolves and people who go crazy during the full moon. We watched and waited patiently to see if the moon really looked even bigger and brighter on November 14.

My parents work at a nearby hotel and they told me that the hotel was hosting an astronomer who talks about this lunar phenomenon all the time.

When they saw our interest in the supermoon, they told me:

"Miguel, they are gathering a group of observers at the hotel that are going to meet on Monday in the central square to see the supermoon. If you want, you can invite your friends or whoever you want from the neighborhood to attend the event."

My friends were very excited about the idea of going to the hotel. The first first thing I thought was that I needed to invite Don Pablo and Mrs.

Teresa. My friends and I might have the chance to see another supermoon again because it is supposed to repeat in 2034, but since they are already older, it's possible that they might not have another opportunity like this.

On Saturday, Don Pablo was with his children and I didn't want to interrupt his family barbecue so, I went over to Mrs. Teresa's house. She was watching TV and carrying her chubby cat, Toby. I told her that the moon was going to look bigger on Monday and invited her to go with us to the hotel. At first, she was not very interested, but when I told her that I was also inviting Don Pablo, she said yes.



I went to Don Pablo's house early Sunday, and told him about the program at the hotel to watch the supermoon. I said,

"Don Pablo, please come, we will not see another moon like this until 2034, so you really need to take advantage of this opportunity."

Don Pablo, laughing at my amusing comment, asked me,

"Did you also invite Mrs. Teresa?"

"Yes, I invited her yesterday."



"Thanks Miguel, I will go. I'll come to your house before taking her to the hotel."



The big day arrived, Monday night at the central square of the hotel. It was perfectly organized, lit only by torches so as not to dull the moonlight. The chairs formed a circle and on a long table, there were snacks, juices, and coffee. Guests, all with cameras, chatted with each other.

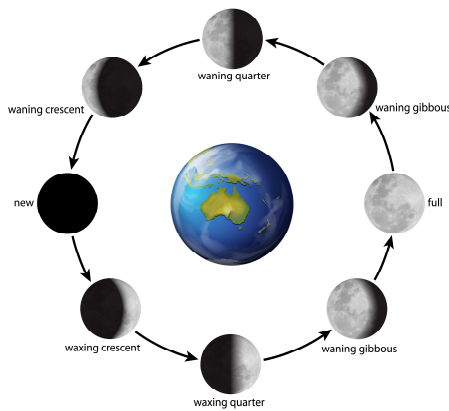
The night was clear. When everyone arrived, my father introduced the astronomer, explaining that he was dedicated to the study of the universe. The astronomer was a friendly gentleman with large glasses who enthusiastically told us that he was ready to answer our questions.



"Why does the biggest moon look today?" they asked.

"What happens today is that the moon is closer to the earth," he said.

### Phases of the Earth's Moon



"The orbits of the stars are not circular but elliptical or oval. As the moon travels around the earth, its point of approach at its closest distance is called **perigee**, and its opposite point of maximum distance is called **apogee**. Tonight, it coincides that the moon is full and also at its closest point to Earth."

"Why are there times when I can't see the moon and other times it looks smaller?" asked Rosita.

"As I explained, the moon orbits around the earth. As it makes this path, the sun illuminates various parts of the earth causing the phases of the moon. These phases are: Full Moon, Waning Crescent, New Moon, and Waxing Crescent."

We all listened carefully as he explained it more simply.

"It is called a **Full Moon** when it looks complete because the rays of the sun are shining on its face and are visible from the earth. When it gets smaller each day, it is called the **Waning Crescent**, or Waning Quarter. When the moon appears to be shrinking, or waning, until it is invisible because the sun is not illuminating its face, it is called the **New Moon**. Then, it begins the **Waxing Crescent**, or Growing Quarter, which makes it look as if it is growing a little every day until it once again reaches Full Moon, starting the cycle all over again.

"Is it true that it only looks like this every 68 years?" I asked, and pointed to the moon that already looked brilliant.

"True, it only appears this **imposing** every 68 years. We see the supermoon on other occasions, for example, this year we will see it again on December 14. That day it will also reach its perigee while full, but it will be farther away from Earth."

The light on the square was growing, the moon was full, resplendent, and enormous. There was a moment of silence while everyone admired its majesty with amazement and then, exclamations, cameras, photos, and videos. We all wanted to record this moment. What a thrill to be able to experience it this way and to have been lucky enough to have someone here who could help you understand it better!

We enjoyed snacks in the light of the supermoon. In all the excitement, nobody had noticed that sitting together, quietly, watching the moon, were Pablo and Mrs. Teresa, shyly holding hands.