

These Facts about the Moon are brought to you by
Schelling Corporation, Makers of

The LunaTime™

What is the Moon's Daily Cycle?

Right in your room you can see the hand of the LUNATIME, representing the Moon, rotating once in 24 hours and 50 ½ minutes. This is the time it takes the Moon to return to the same position over the same place on Earth each day. Actually, the Earth is rotating on its axis under the Moon once every 24 hours, but since the Moon, at the same time is rotating around the Earth in the same direction, once every 29 days, the Moon ends up at the same place each day about 50 minutes later.

Why Do We Sometimes See the Moon During the Day?

By using the LUNATIME, you will be able to understand exactly where the Moon is at any time! Actually the Moon shines in our sky everyday – we just don't notice it sometimes! Right in your room you will be able to watch the hand of the LUNATIME (representing the Moon) moving at its rate of 24 hours and 50 ½ minutes per day. You will be able to understand that the Moon, just like the Sun, "moves across our sky" every day; and that on many days the Moon is up in our sky at the same time the sun is! No longer will it be a surprise to see the Moon during the day, and you'll always know its phase.

Does the Moon Rise and Set Everyday?

With the back of the LUNATIME towards the south, its hand will clearly demonstrate that just like the Sun, the Moon rises each day in the east, travels through the sky to its own upper transit, and sets in the west. On many days you will be able to confirm this by actual observation of the Moon itself. By observing the LUNATIME, you will be able to determine how long it takes the Moon to return to the same place each day, i.e. from one Moon rise to the next.

Just What is the New Moon – And All the Rest?

The LUNATIME is guaranteed to help you understand the phases of the Moon because it is the relationship of the Moon compared to the position of the Sun that determines the phase of the Moon. Too often we just don't know where the Moon is and that is just what the LUNATIME tells us! Let's start at the beginning- new Moon. When you see the hand of the LUNATIME pointing straight up, meaning it is at its upper transit, AND your wall clock says its 12 noon, that day will be NEW MOON because the Sun and Moon are in the same position in the sky. At new Moon, none of the Sun's light can shine on the side of the Moon facing us, and therefore you won't be able to see the Moon-but the LUNATIME will tell you it is there. 24 hours later, the next day, you will notice that at 12 noon, the Moon will still be an hour before its upper transit because the Sun is "moving" about an hour a day faster than the Moon. Each day, the Sun will get further ahead of the Moon, 'til about 6+days (90 degrees) later, they will be at right angles to each other and the Sun will illuminate ¼ of the Moon's total surface-it's the Moon's FIRST QUARTER! In another 6+ days, the Sun will have traveled another 90 degrees faster, and will then be 180 degrees ahead. The full face of the Moon (50% of its total surface) will then be illuminated by the Sun- It's FULL MOON- the SECOND QUARTER! In another 6+ days of more speedy travel the Sun will be 270 degrees ahead of the Moon and will be illuminating another ¼ of the Moon., and it will be THIRD QUARTER! In another 6+ more days the Moon and the Sun will be together again in the sky, and we're back to the beginning- NEW MOON! It will be fun to note that on the day of full Moon, as marked on the setting tables the lower lunar transit is always at about noon time, which is the Sun's Upper transit. This means that the Moon is opposite the Sun so it must be full Moon!

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Does the Moon Really Control the Tides? Of Course!!!

Because the Moon's daily cycle is 24 hours and 50 ½ minutes, so is the tide's. As unbelievable as it may sound, the gravity exerted by the Moon, that little ball in the sky, exerts enough pull on the countless billions of tons of ocean water to control their ebb and flow everyday. (It is a little known fact that every spot on the Earth also bulges by a few inches when the Moon goes by.) It is generally and mistakenly thought that the Moon pulls the tides "up" when it goes overhead but not so! The gravitational pull of the Moon pulling straight up as it passes overhead, is one nine millionth of the gravitational pull of the Earth pulling down! Rather, when the Moon is above the horizon, it is the, sideways pull of the Moon at a 45 degree angle pulling the sea water across the ocean's bottom, that causes the currents that cause the tides. You can use the LUNATIME as a tide clock because at each location, high and low tide will always occur at the same "lunar time."

What is the LUNATIME?

The LUNATIME is a clock whose hand rotates clockwise once every 24 hours and 50 ½ minutes, and therefore keeps accurate track of the Moon and tells you exactly where it is at all times. The Moon comes alive with the LUNATIME. It is geared to the Moon's unusual cycle of 24 hours and 50 ½ minutes per day. This unique timepiece brings alive the exciting and unfamiliar facts about our closest celestial neighbor – the Moon. Just as the Sun passes overhead everyday, traveling from east to west in about the same arc, so does the Moon pass overhead everyday, traveling from east to west in about the same arc. But instead of the Moon doing it in 24 hours like the Sun, the Moon does it in 24 hours and 50 1/2 minutes. It is because the moon passes overhead each day at a different solar time that we never know where to look for it. A good exercise is for you to face south, put the LUNATIME in front of you and observe the hand circling the Earth. It would start at lower transit, 000/2500, straight down, rise to your left, the east, passing overhead through its upper transit, setting to your right, the west, and continuing down again to the lower lunar transit, 0000/25000- all in 24 hours and 50 ½ minutes. For simplicity, although the hand is rotating at a precise rate of 24 hours and 50.472 minutes per day, the Moon's average cycle, we mark 25 hours on the face of the LUNATIME.

In order to keep our explanation of a very complicated phenomenon as simple and as clear as possible, we have taken some liberties. An example is that the time zones on the face of the LUNATIME are one hour wide, and so our setting tables will be precise only to the middle of the time zone. Another example is that because of the Moon's elliptical orbit and its monthly trip north and south, the Moon's actual travels are not quite as precise as our LUNATIME. Be secure, that the LUNATIME is geared to the PRECISE AVERAGE of the Moon's cycle, and the liberties we have taken, in no way affect the credence or the usefulness of our product.