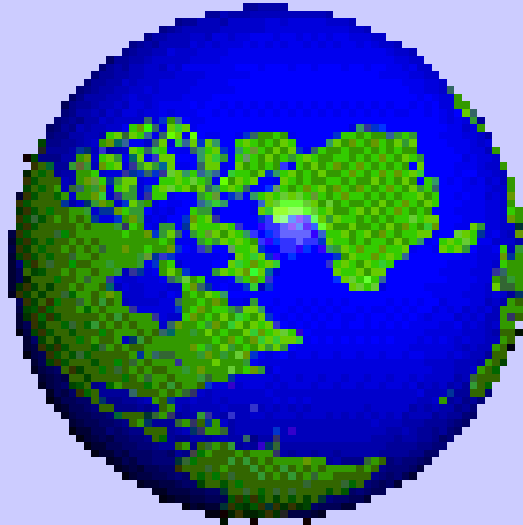
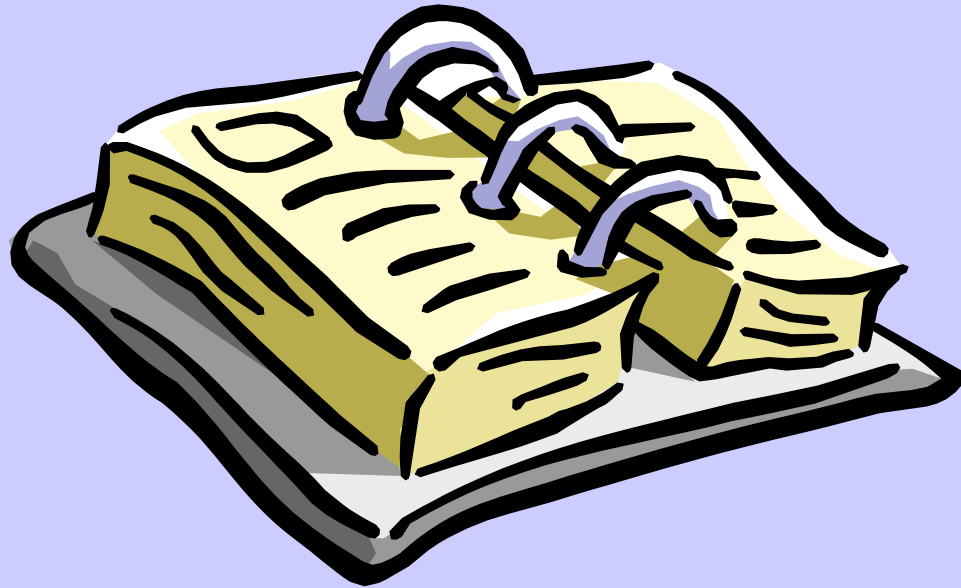


# Moon Phases



The Earth has 1 moon that **revolves** around the Earth. It is a satellite of Earth.





It takes **29 ½ days** – almost 1 month – for the moon to revolve around the Earth.

The moon does not make any light of its own. The lighted parts that we see are called **phases**.

The moon **reflects** light from the **sun**.



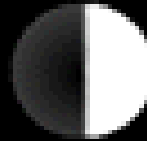
As the moon revolves around the Earth, it looks like it has different shapes. The shape of the moon does **not** really change. It just changes its location in space.



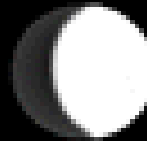
New



Waxing Crescent



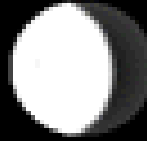
First Quarter



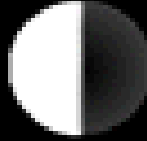
Waxing Gibbous



Full



Waning Gibbous

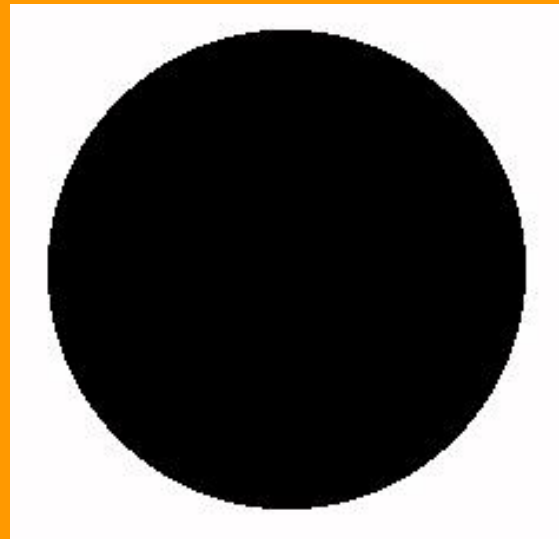


Last Quarter

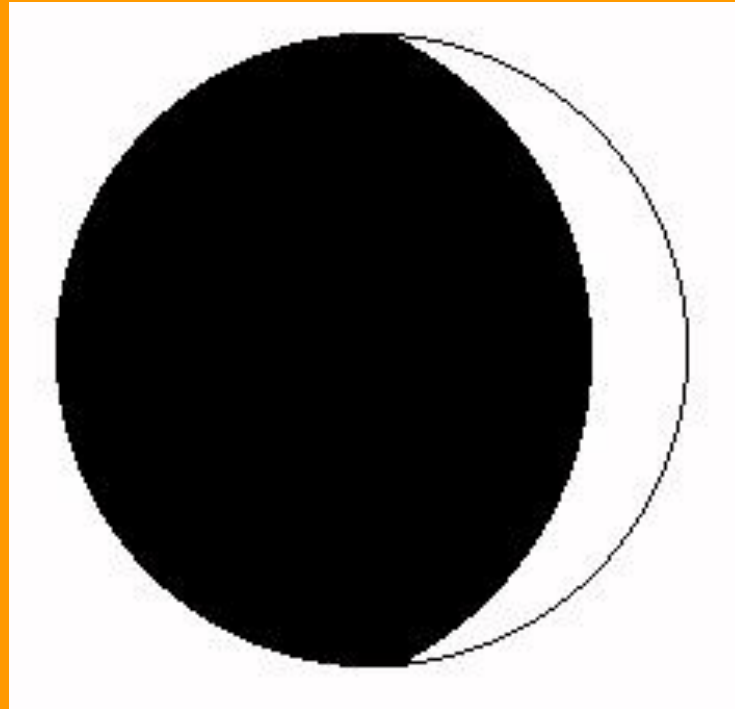


Waning Crescent

During a **new moon**, the moon looks dark.

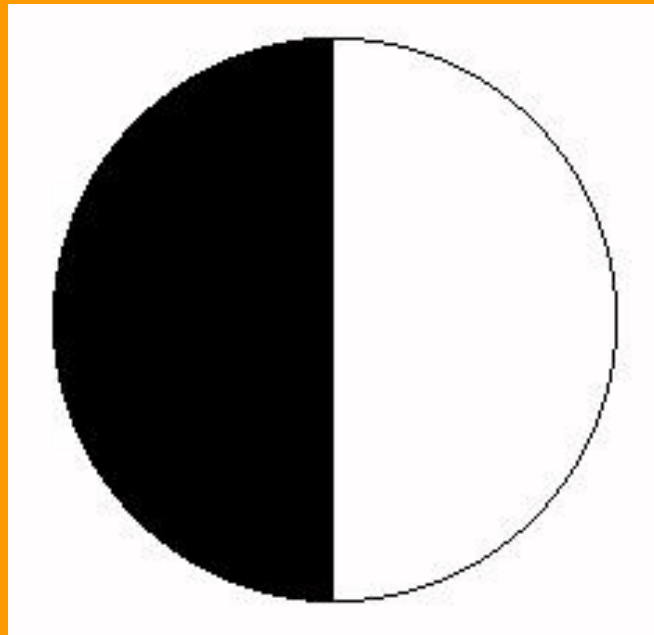


As the surface of the moon that we see gets bigger, we say that the moon is **waxing.**



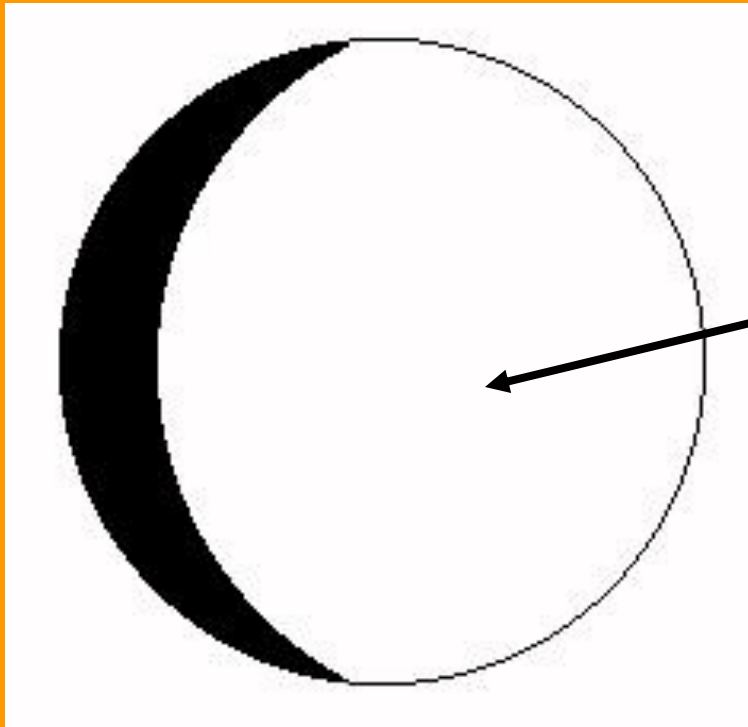
This is a **waxing crescent moon.**

When the moon is  $\frac{1}{4}$  of the way around the earth, it is in its **first quarter moon**.  
We see it as half lit.



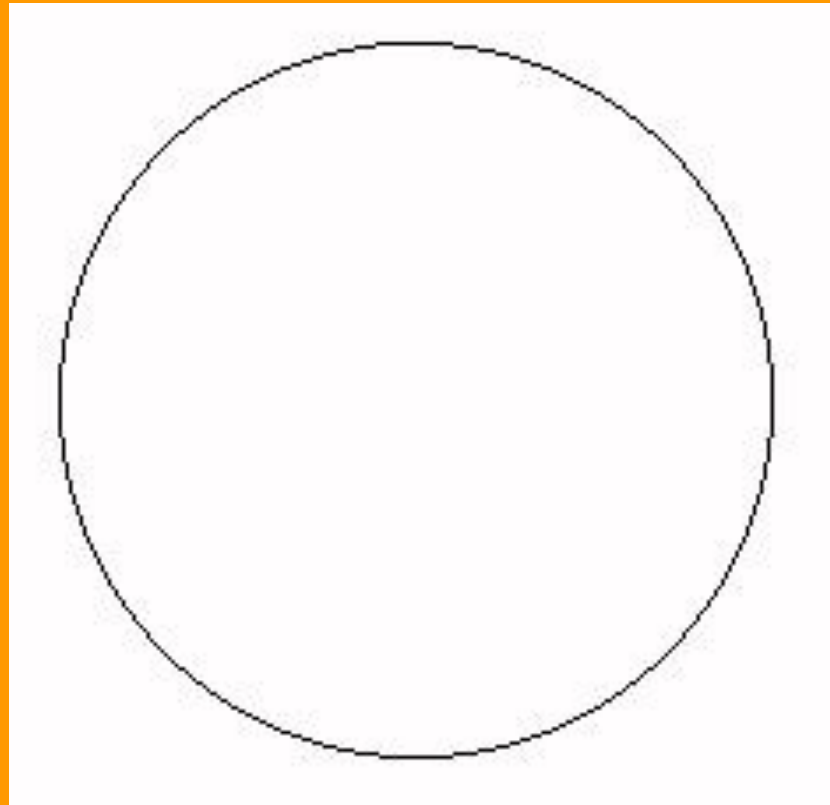


After the quarter moon, the moon is moving towards a full moon. We call this a **waxing gibbous moon**.

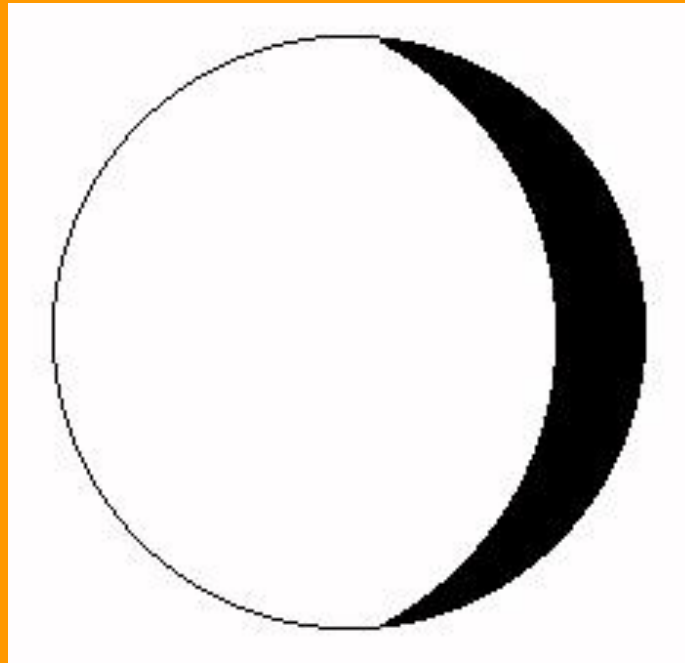


*Notice that the bright part of the moon is getting larger. That's what we mean by "waxing."*

Now it's time for a **full moon**. The entire face of the moon that we are able to see shines during the **full moon**.

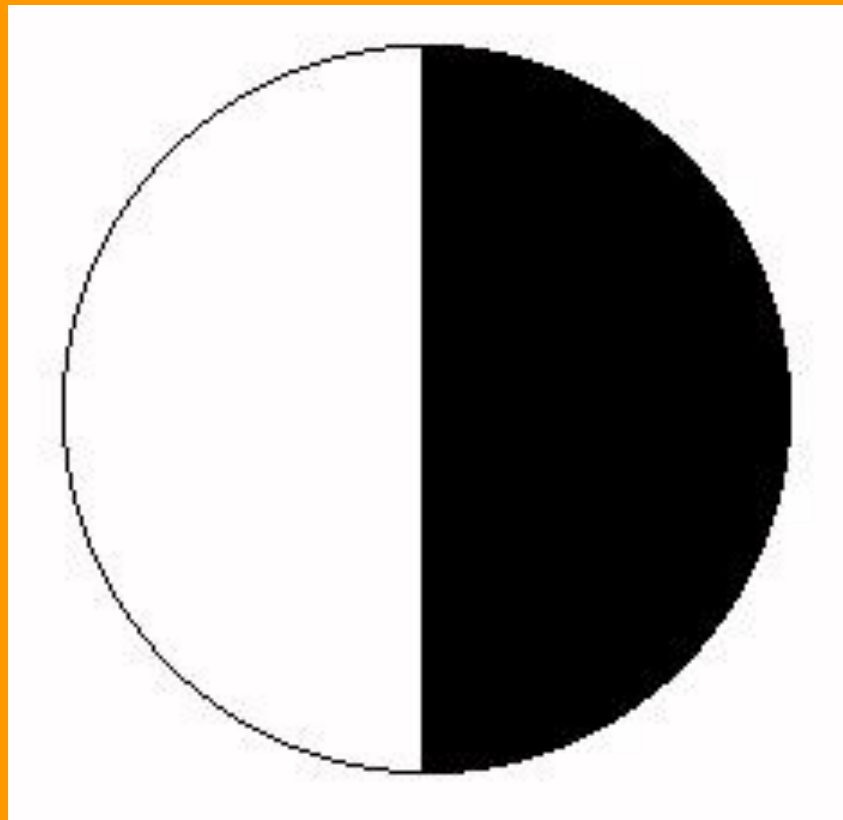


Following the **full moon**, the surface of the moon seems to be getting smaller. We call this a **waning moon**.

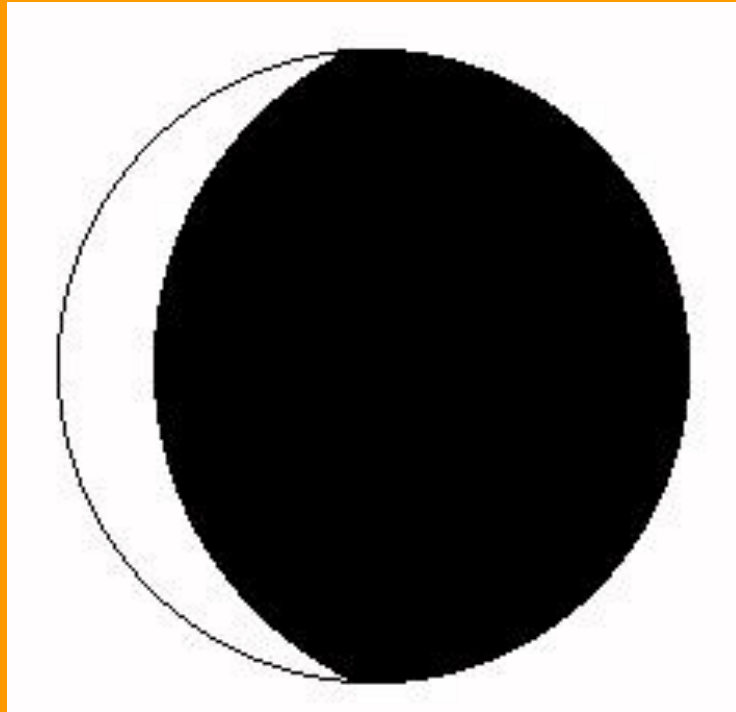


This is a **waning gibbous moon**.

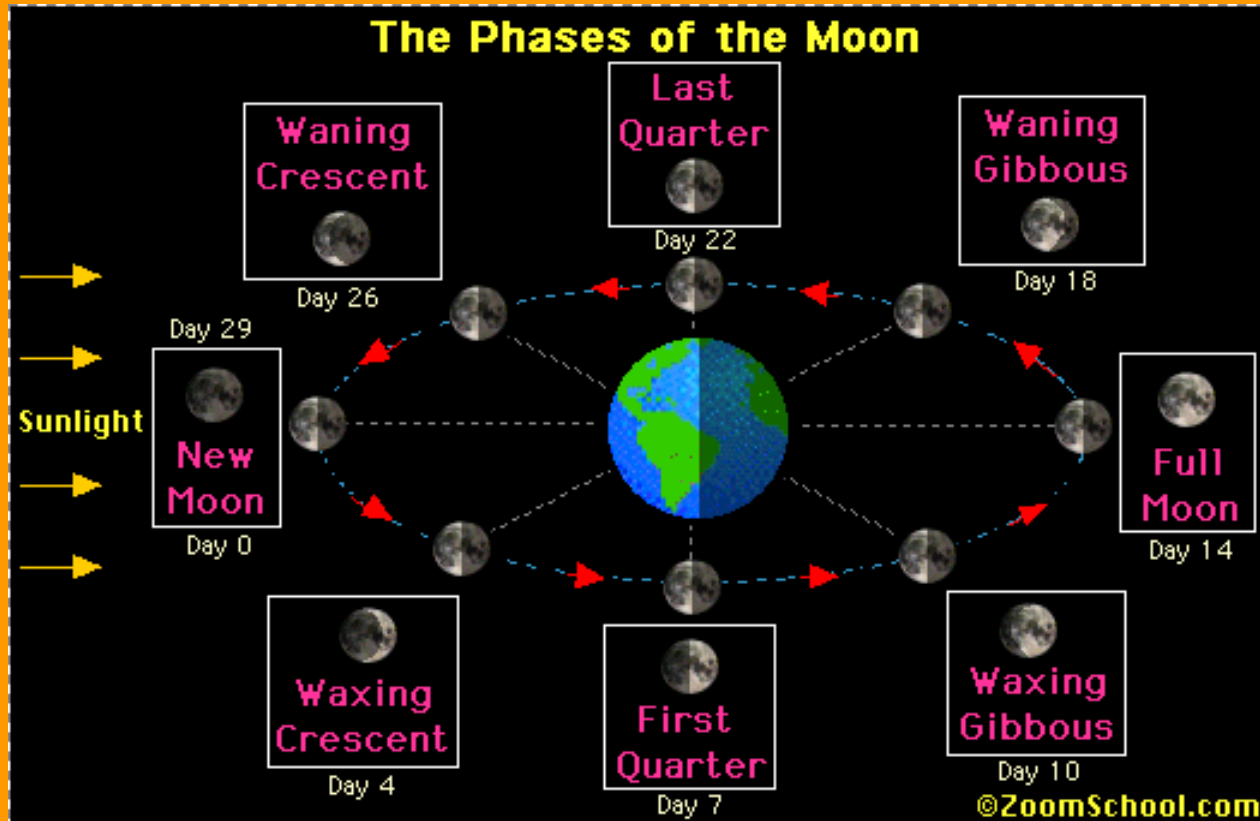
Now that the moon is  $\frac{3}{4}$  of the way around the **Earth**, it seems to be half lit. We call this a **last quarter moon**.



Before we get to the **new moon**, we see a sliver of moon shining up in the sky. This is a **waning crescent**.



Now we see a **new moon** again.



It takes the moon about 1 month (***29 ½ days***) to go through the phases

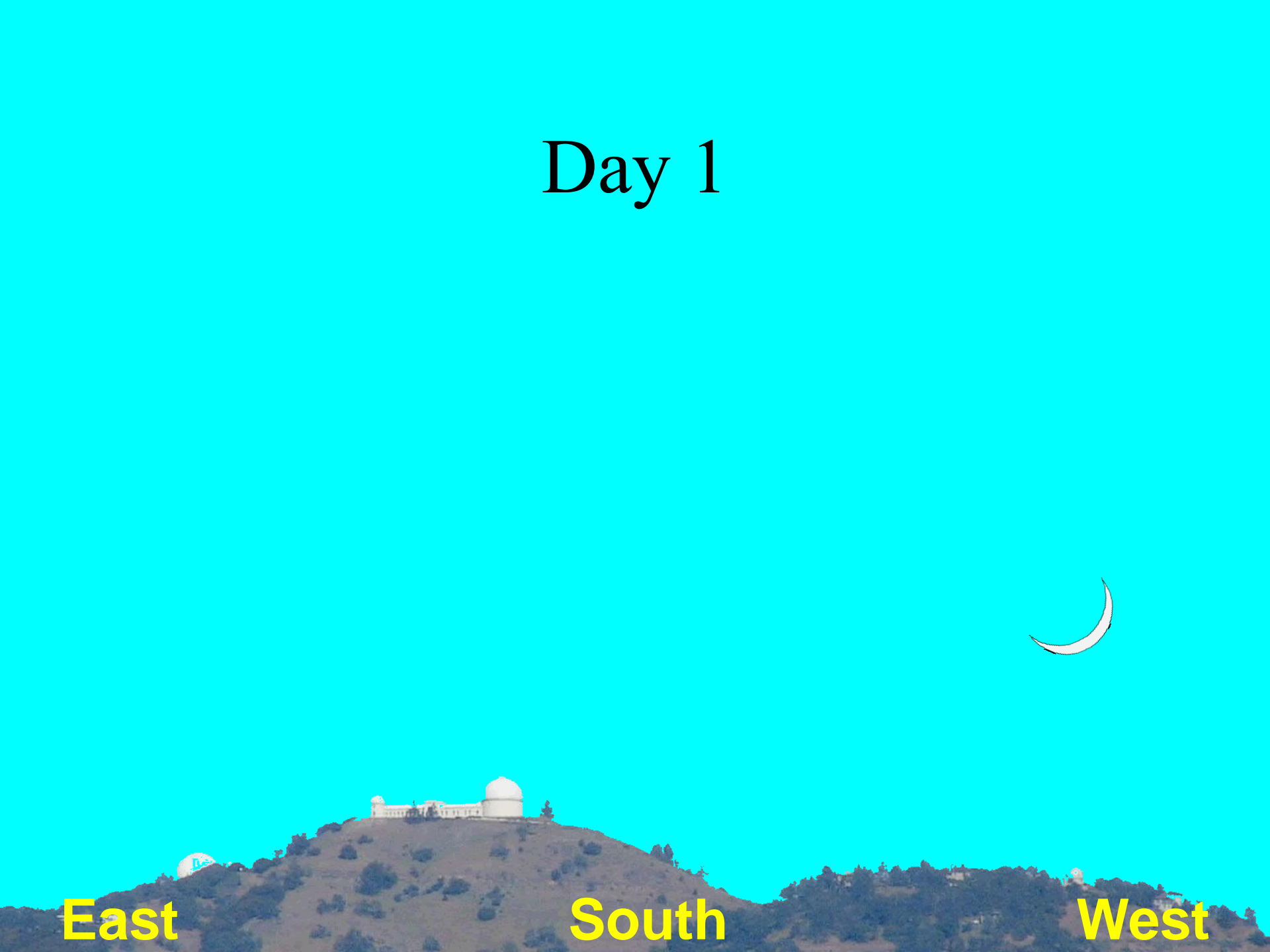
# Moon Phases Simulation

We will observe the Sun and Moon every few days right around sunset time.

Imagine the horizon in these pictures extending all the way from one side of the sky to the other, east to west.



# Day 1



East

South

West



# Day 3



East

South

West



# Day 5



East

South

West



# Day 8



East

South

West



# Day 12



East

South

West



# Day 13



East

South

West

# Day 15



East

South

West



# Day 19



East

South

West



# Day 22



East

South

West





# Day 25



East

South

West

