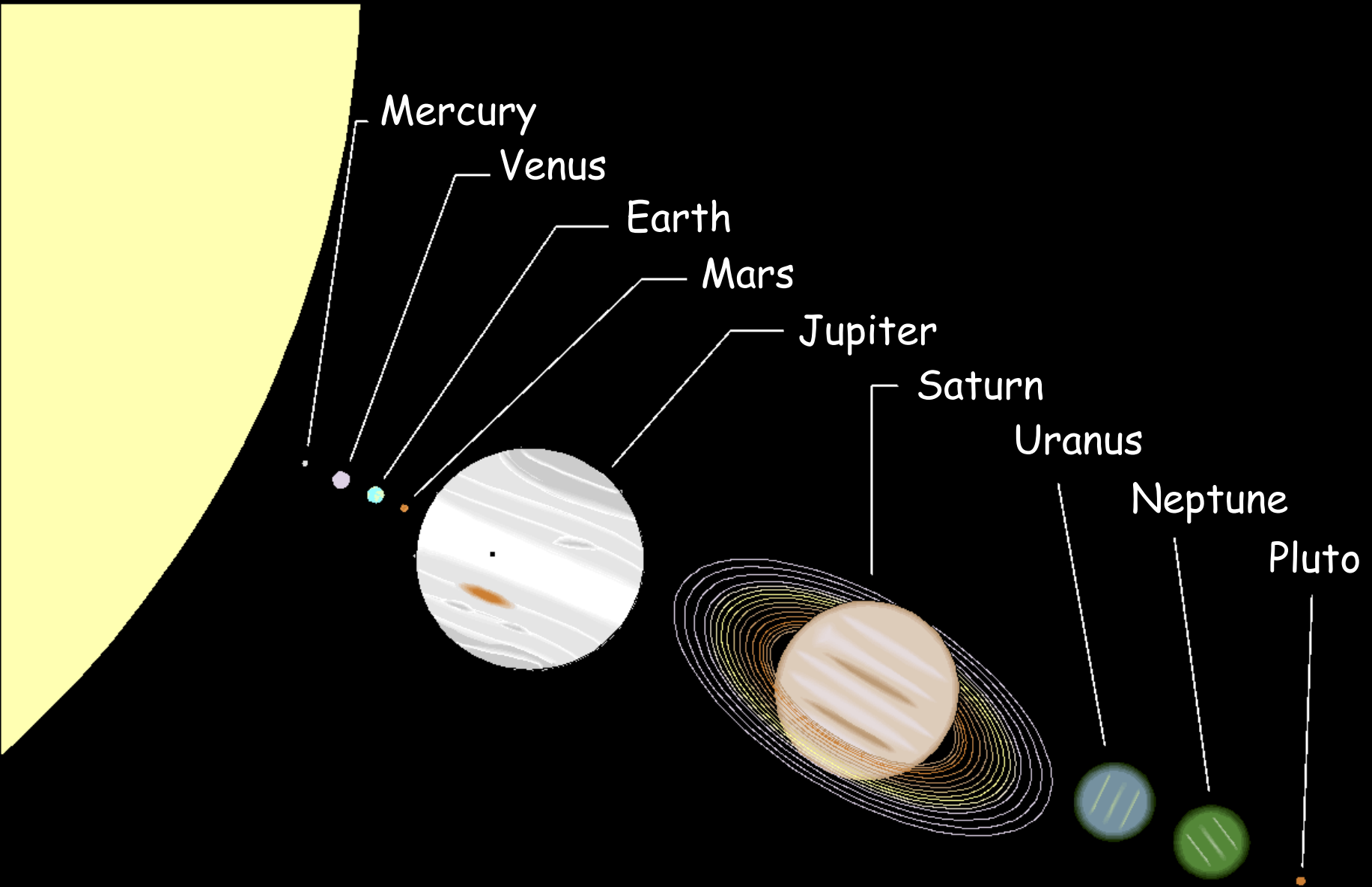
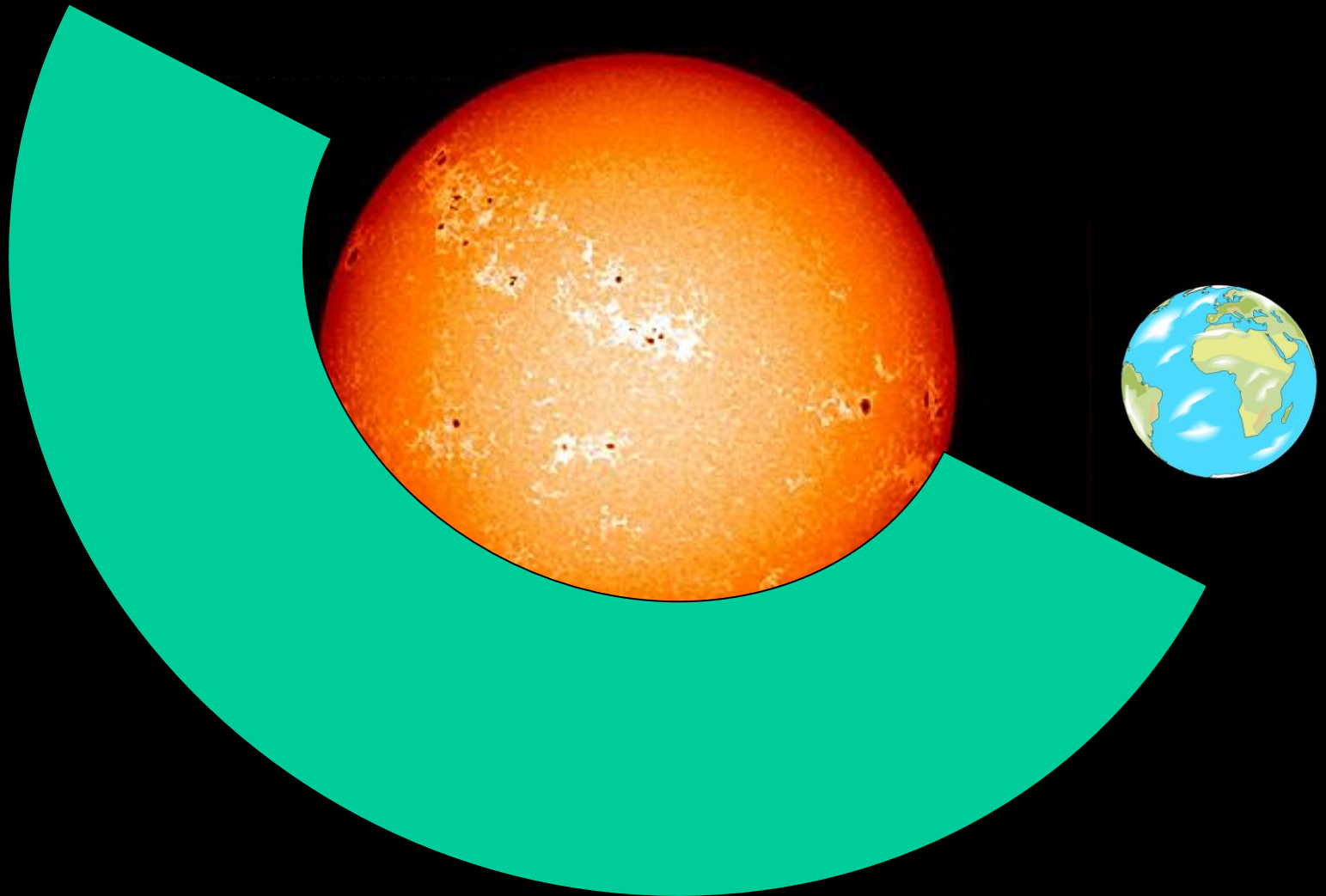


The Solar System and Beyond

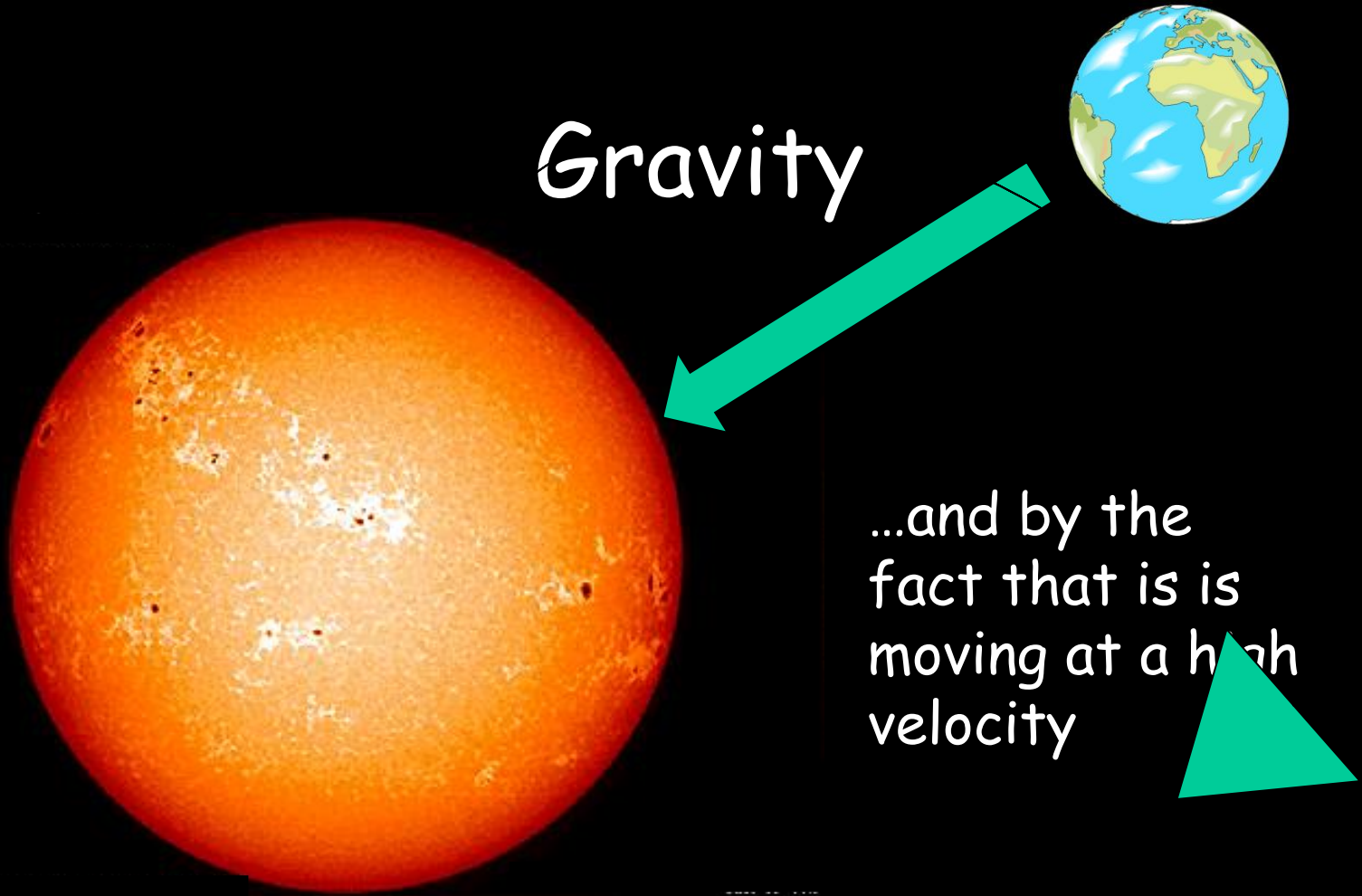
There are nine planets in our solar system:



The Earth orbits the sun every...
...year (365 $\frac{1}{4}$ days)



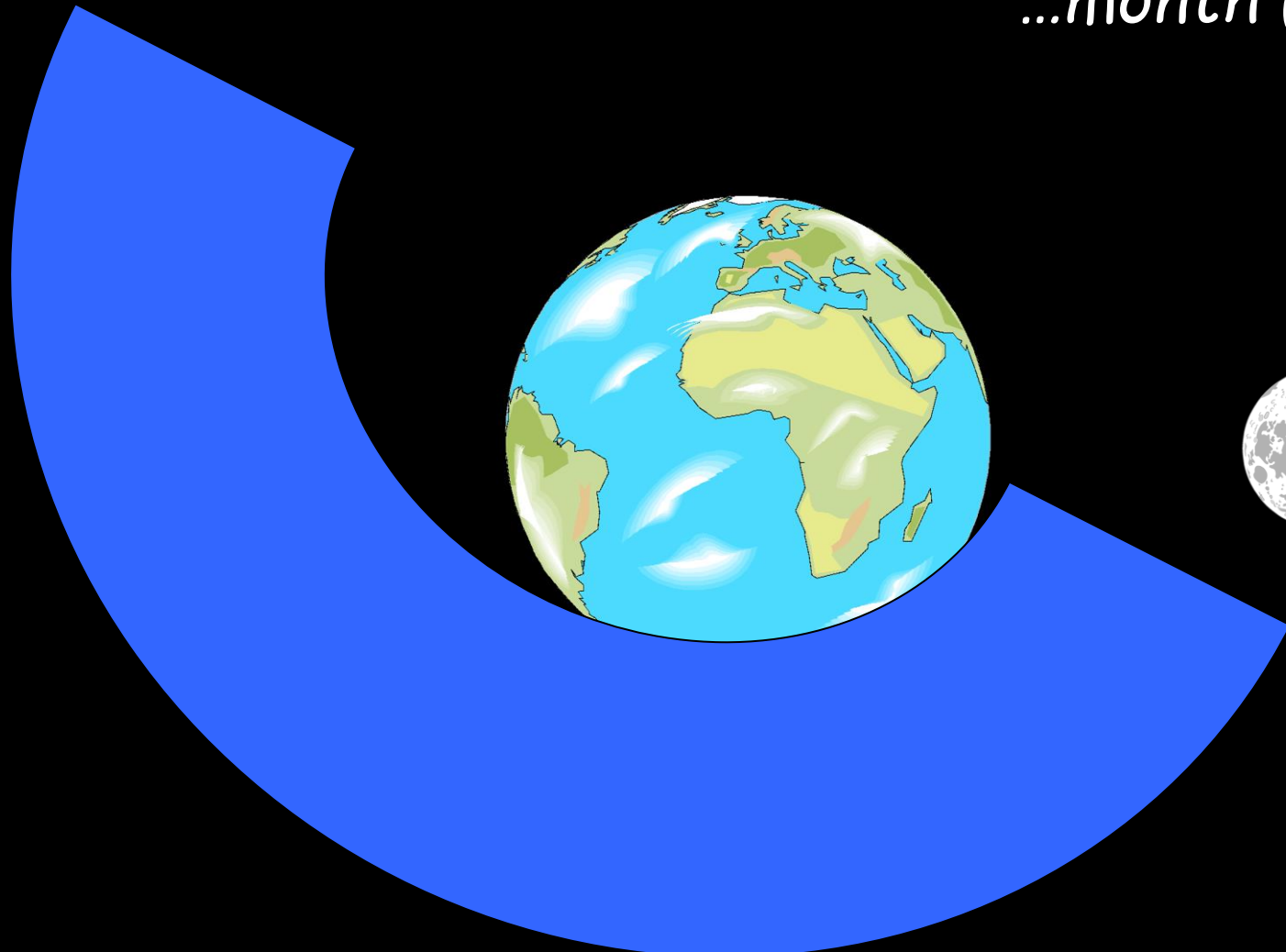
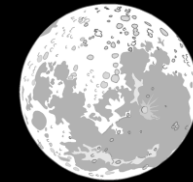
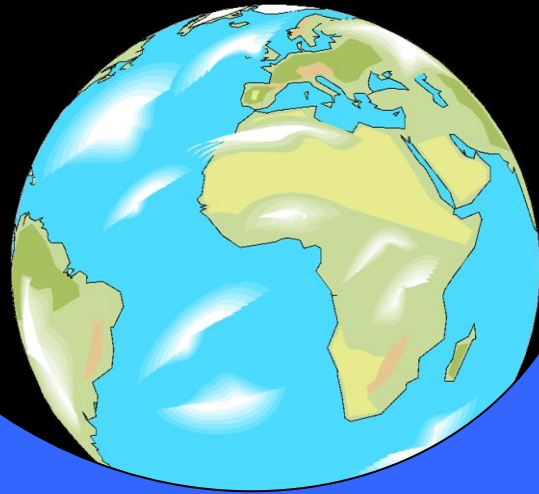
The Earth is kept in orbit by the force of...



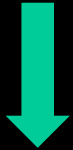
Gravity

...and by the fact that it is moving at a high velocity

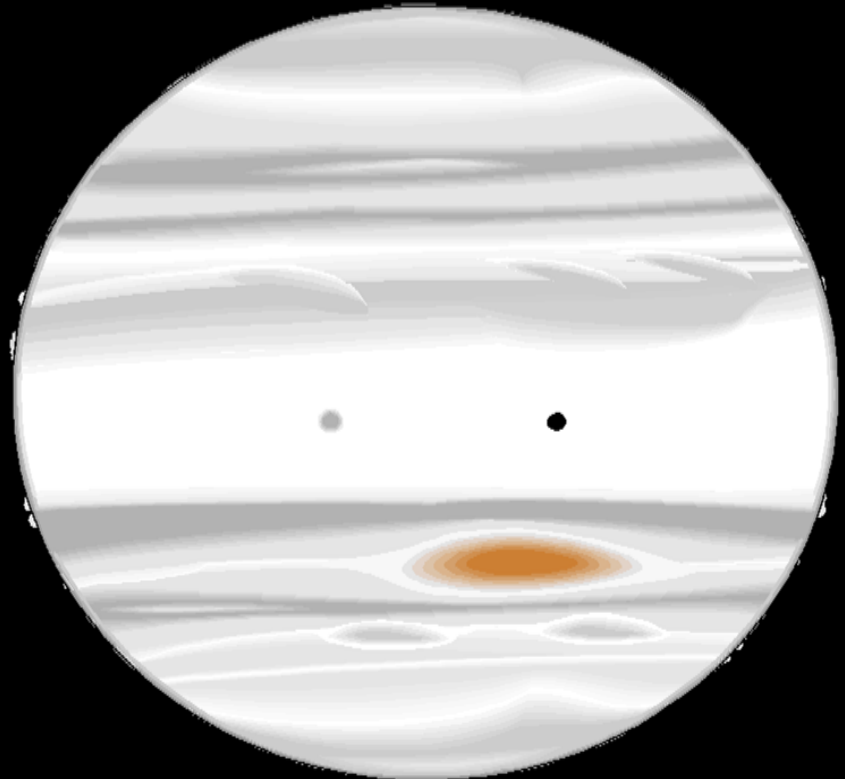
*Gravity also keeps the moon in orbit around the Earth. The moon orbits the Earth every...
...month (28 days)*



Gravity is _____ if the planet has more mass:

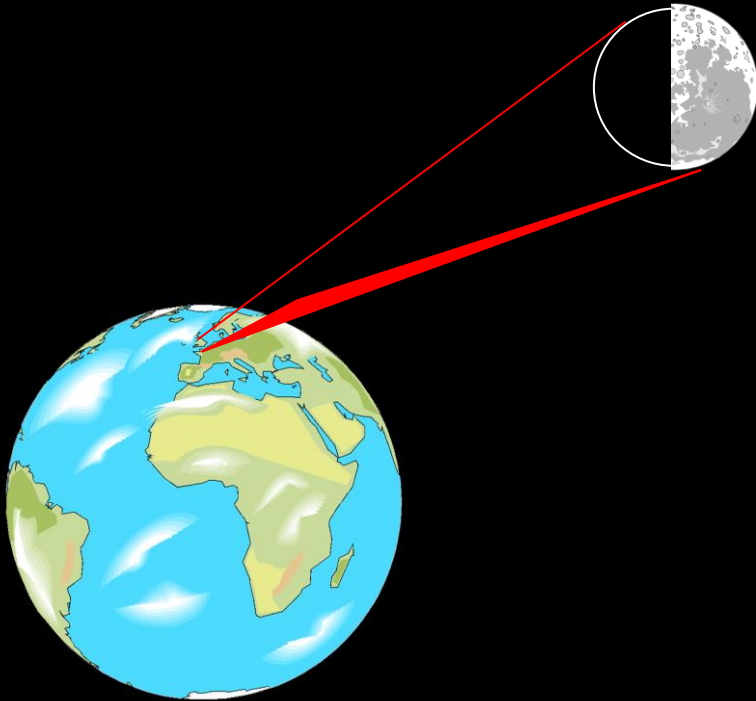


Earth

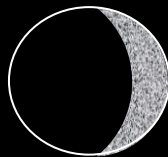


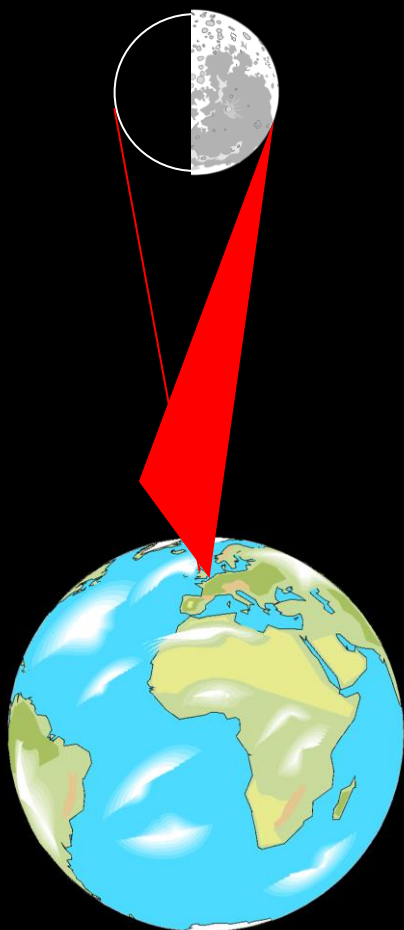
Jupiter

How much of the moon we see depends on where the moon is in its orbit:



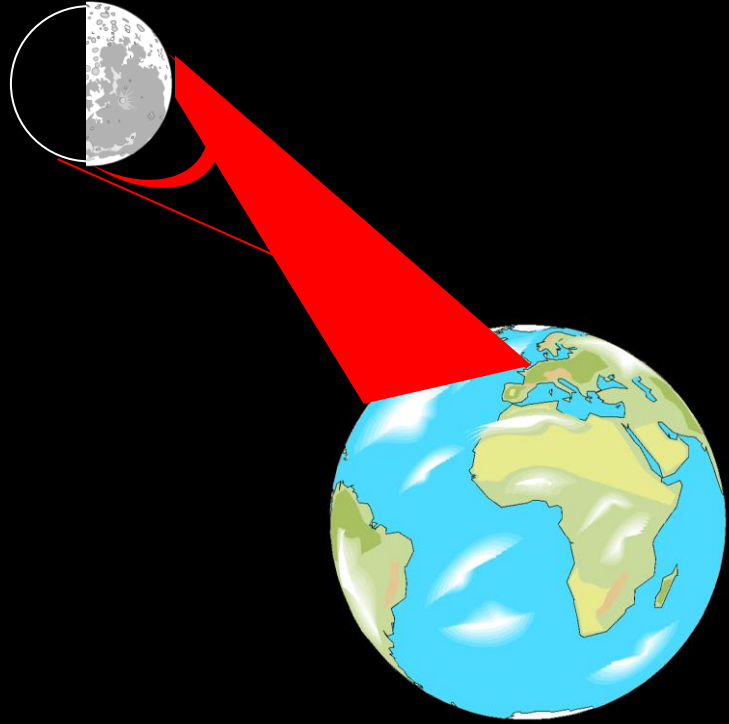
Appearance:





Appearance: 



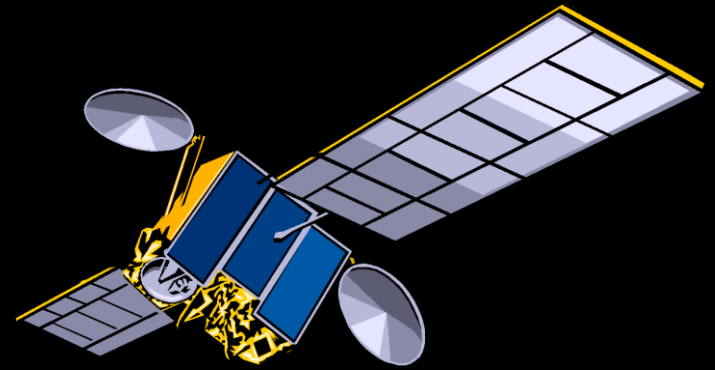


Appearance: 

The moon is a "natural satellite". A satellite is anything that orbits the earth

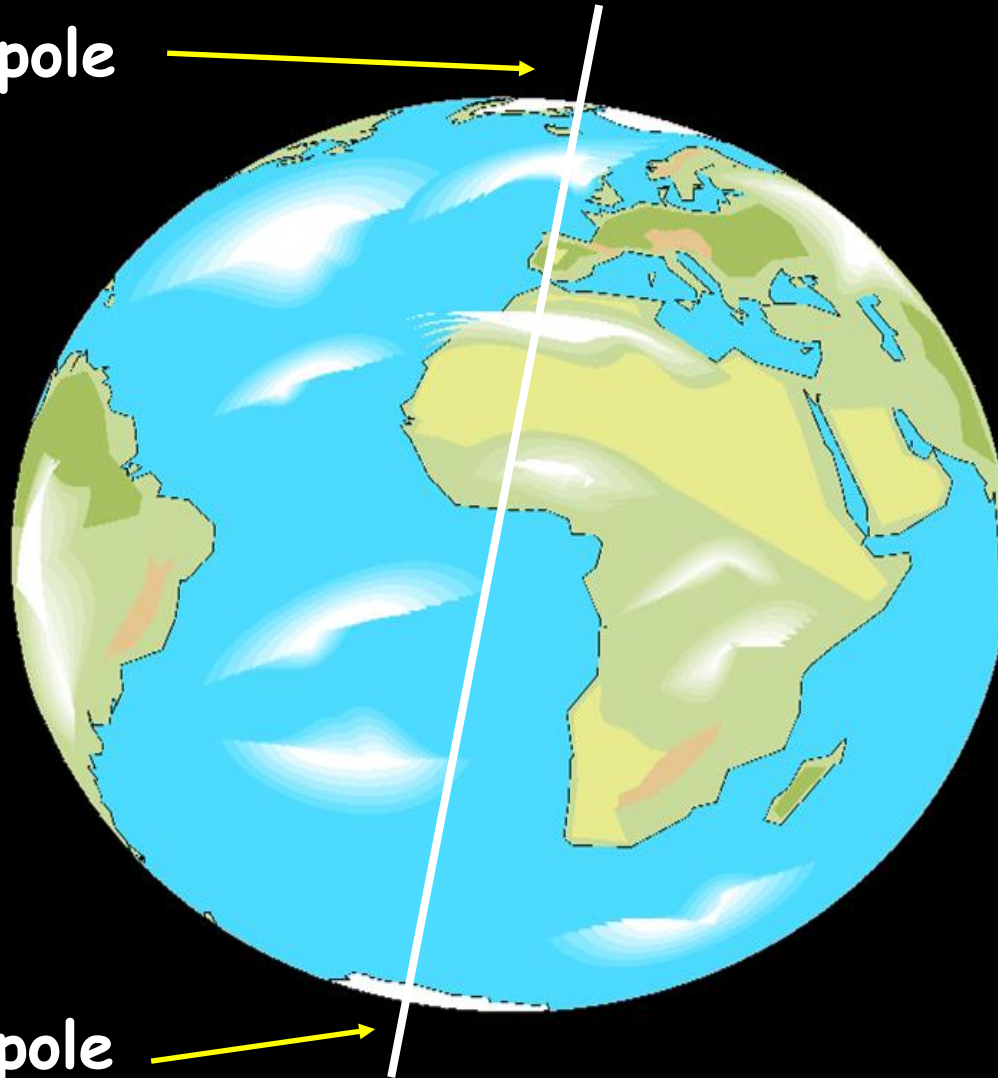
Artificial satellites have four main uses:

- *Communications*
- *Monitoring the weather*
- *Observing the Earth*
- *Exploring the solar system*



The Earth is tilted on an axis

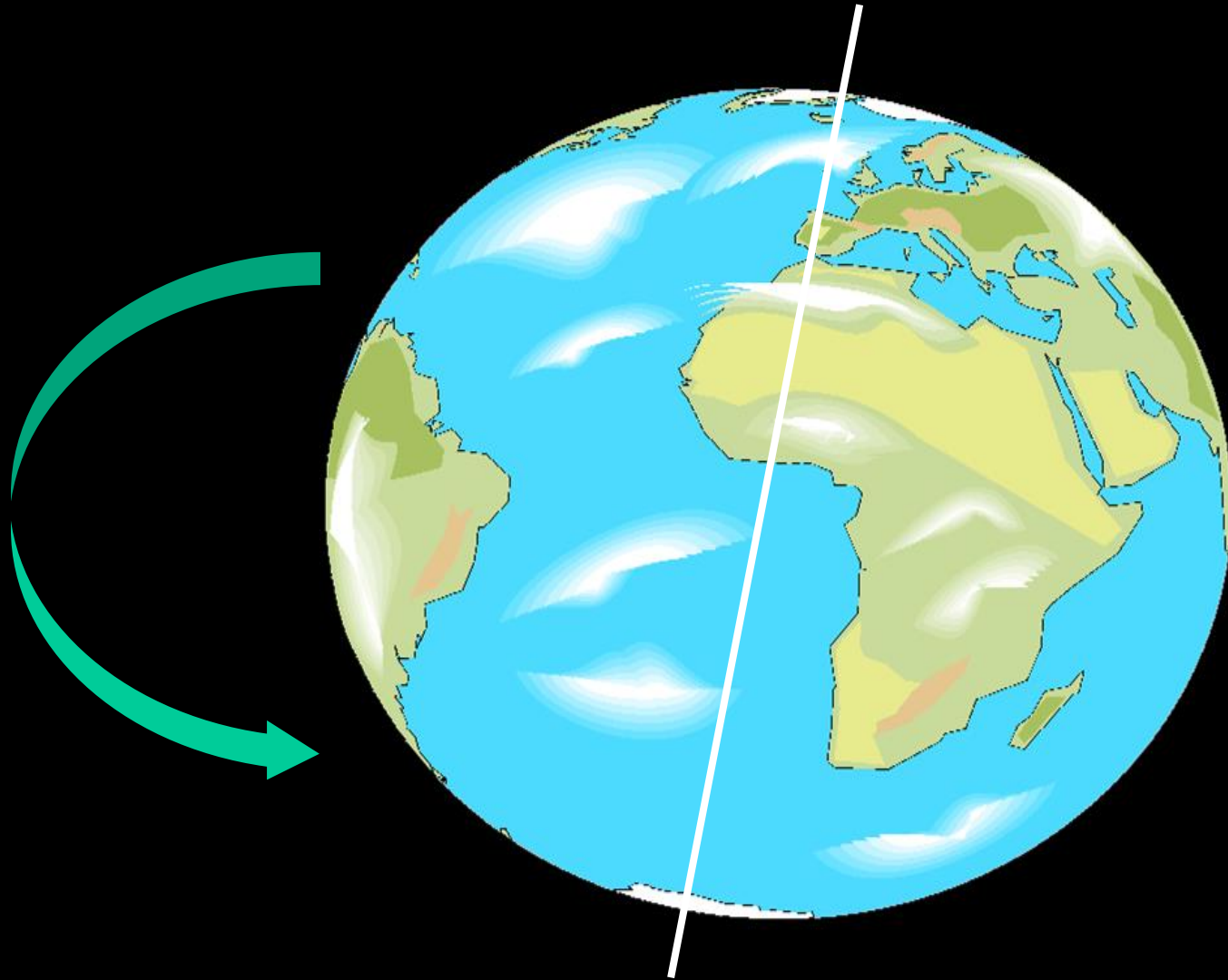
North pole



South pole



The Earth spins on its axis every ____ (___ hours)

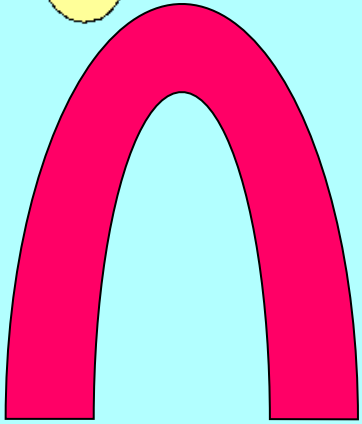


12 noon

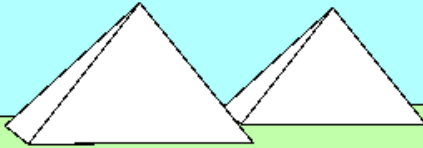
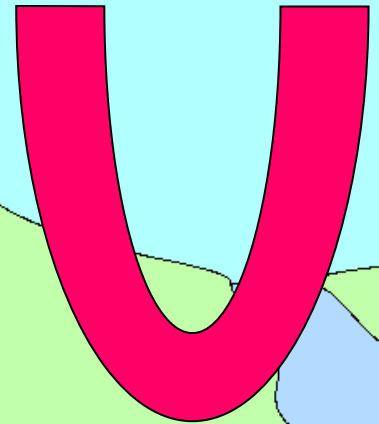


Because of this spin the sun rises in the _____ and sets in the _____

9 am



3 pm



3 pm

12 noon

9 am



The sun appears lower in the _____ than it does in the _____:

12 noon

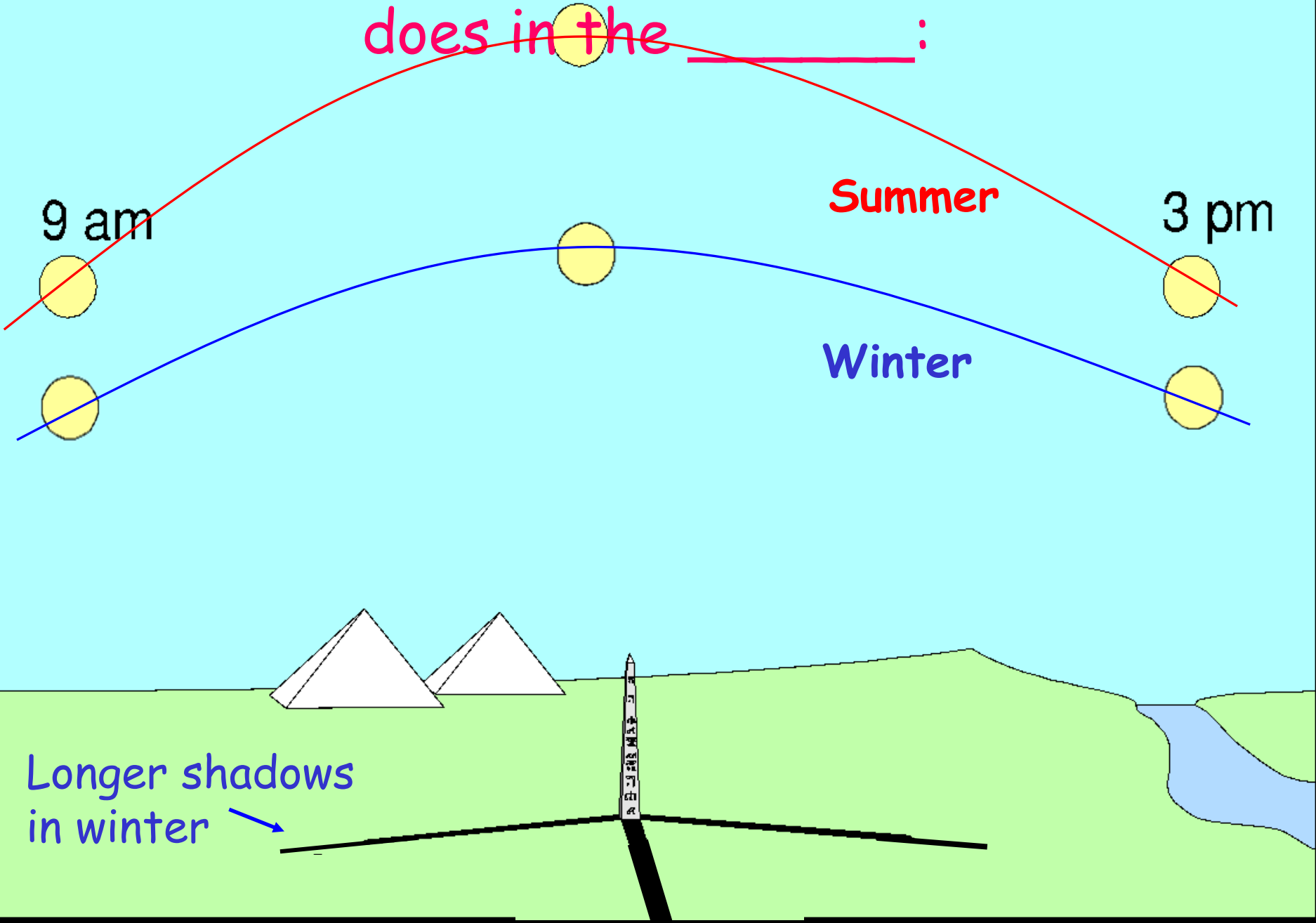
9 am

Summer

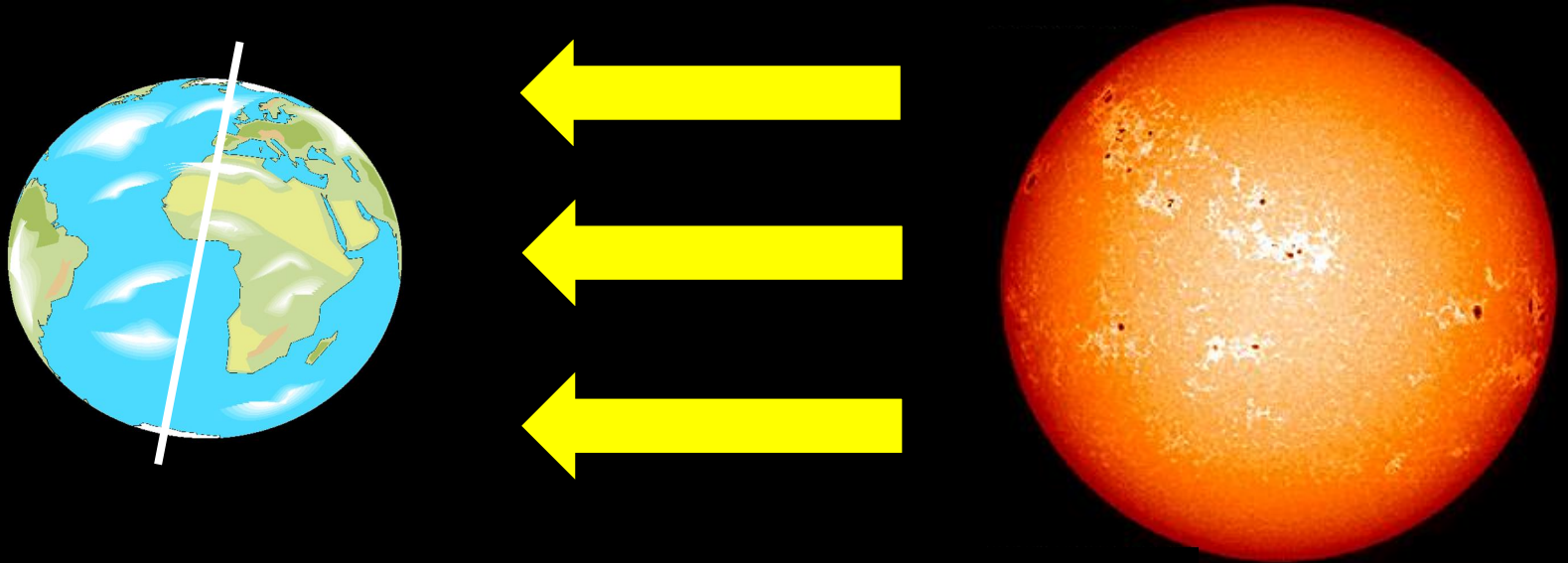
3 pm

Winter

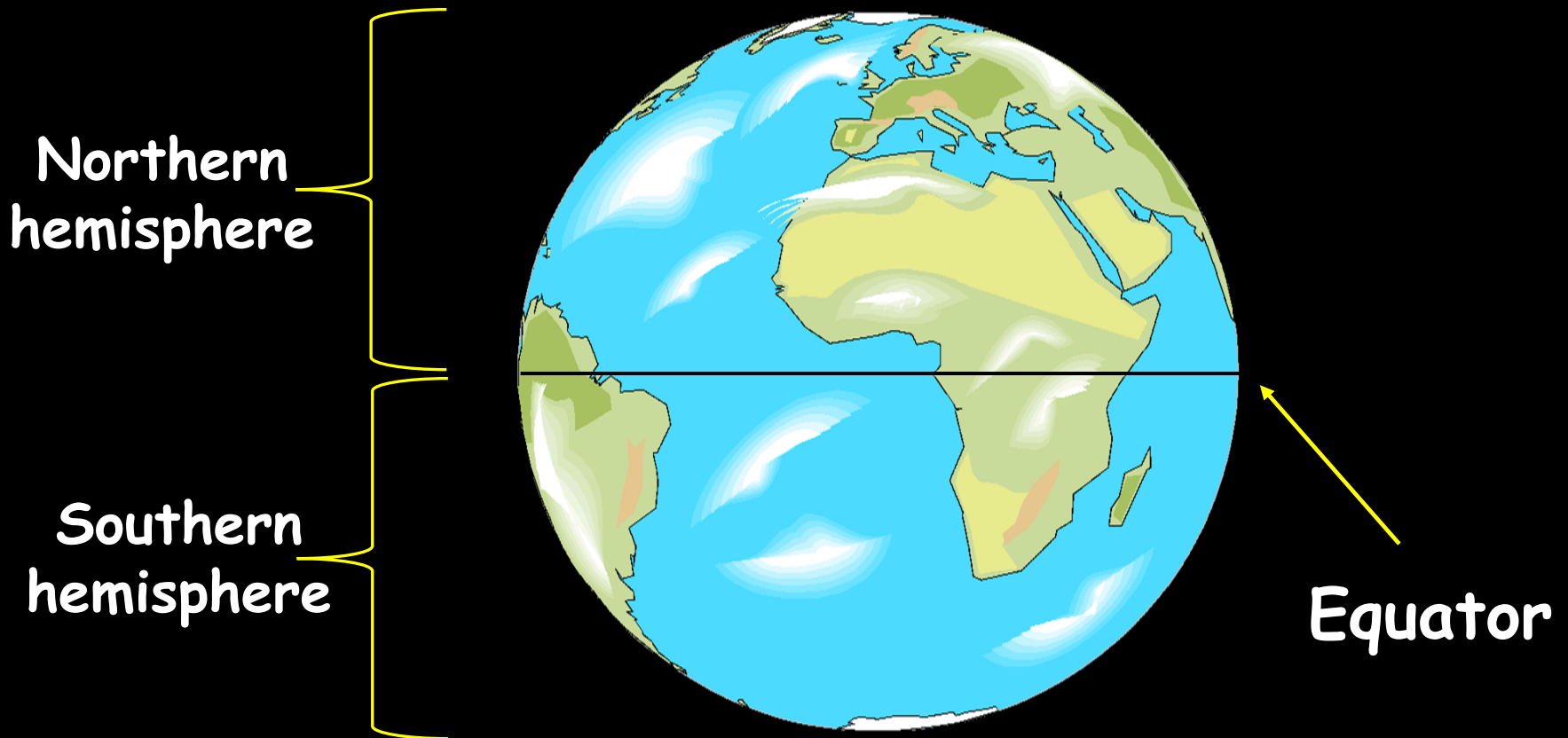
Longer shadows
in winter



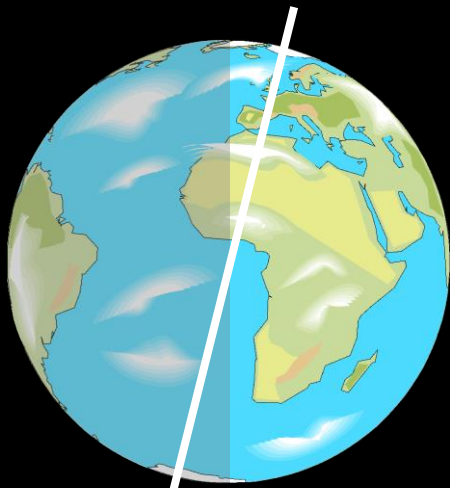
While the Earth is spinning the side that faces the sun is in _____



The Earth is divided up into the northern hemisphere and the southern hemisphere:

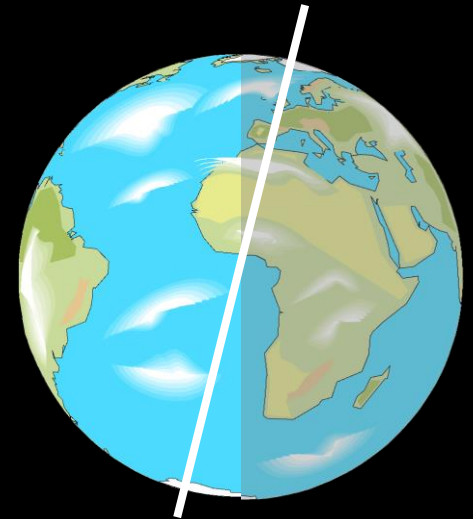
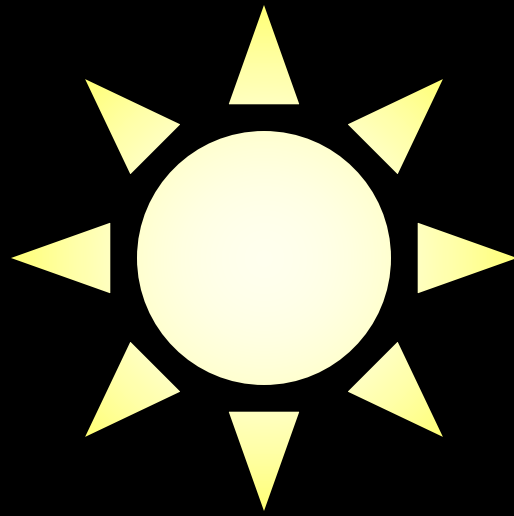


The tilt of the Earth on its axis is also responsible for the seasons:



What date is it here?

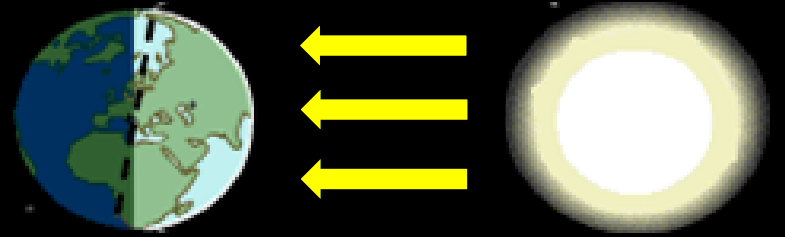
June 21st



What date is it here?

December 21st

Two things happen
because of this tilt:

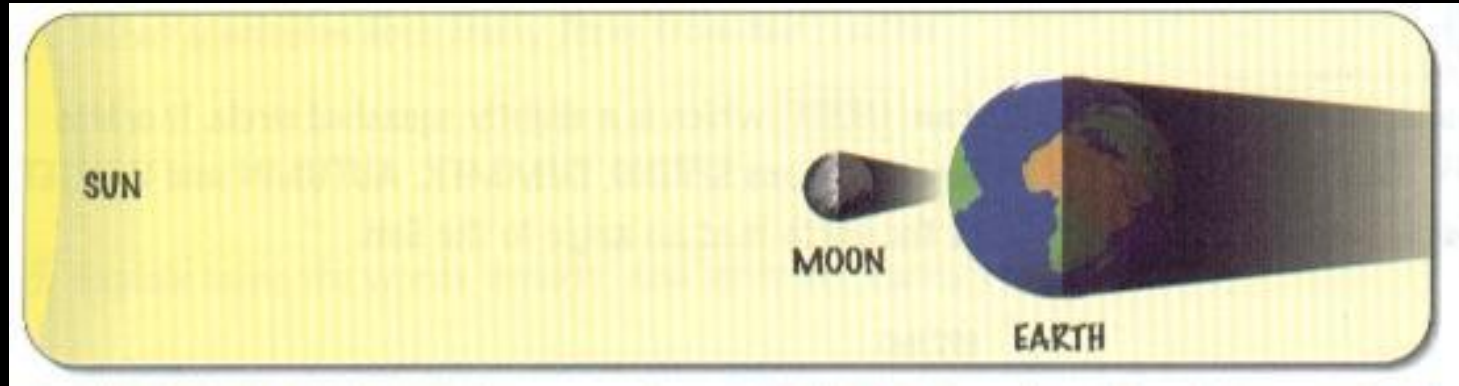


1) The days are longer during the summer

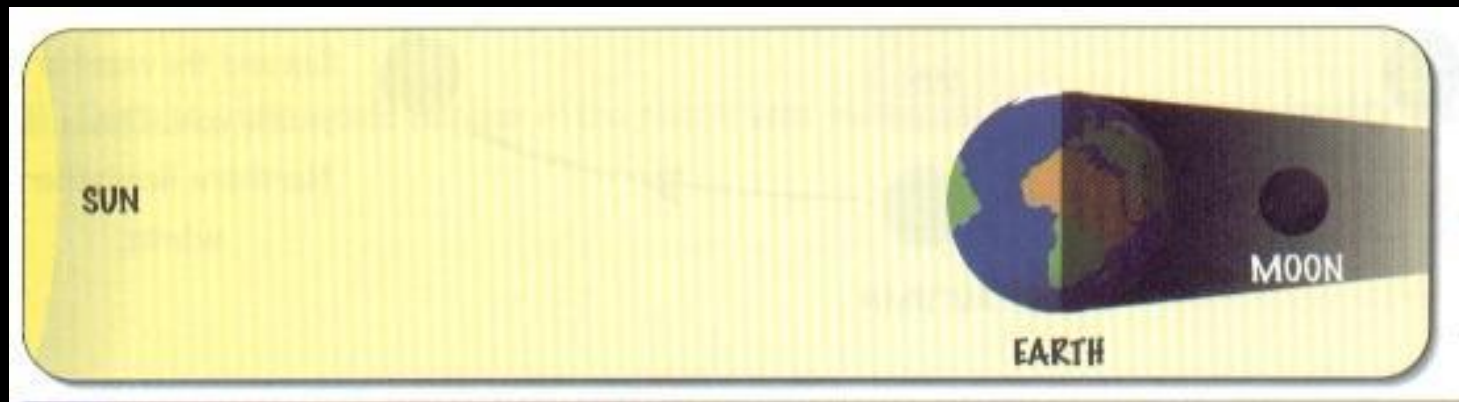
2) The weather is warmer during the summer

Eclipses

1. A solar eclipse:

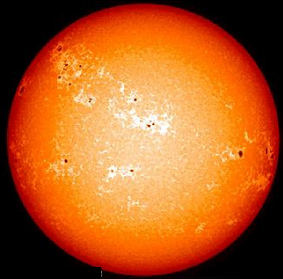


2. A lunar eclipse:

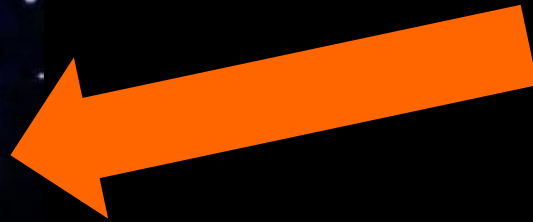


Solar systems, galaxies and the Universe

(Basically, everything in the universe orbits around something else)



OUR SUN is one of millions of stars that orbit the centre of...



THE UNIVERSE

THE MILKY WAY, which is one of a billion galaxies that orbit AND move away from the centre of...