**Ecliptic Orbit**

Today in Science class, Mr. Smith taught us about ecliptic orbits.

Things I learned:

* It takes the moon less than 29.5 days to turn 360 degrees (27.3), but it has to catch up with the earth also so that takes another 2.2 days.
* When the earth was just 50 million years old, it was hit by a piece of stone the size of mars.
* Then it was hit again.
* This blasted enough debris into space to form the moon.
* The sun lights the moon.
* The moon has been hit many, many times by asteroids.
* The earth has 81 times more mass than the moon.
* Temperatures can reach 120 degrees during the day, and -160 degrees during the night.
* When the moon formed, it was about 25,000 kilometers away.
* It is much, much farther away now.
* In a billion years, the moon won’t be in the earth’s gravitational pull, and the earth will tilt on its axis from 0 to 85 degrees, and the climate will be destroyed.
* Ice will cover the equator, and for six months of every year, the northern hemisphere will be covered in ice, and for the other half of the year, the southern hemisphere will be covered in ice.
* I am a waxing gibbous moon phase baby.
* The ecliptic is the path that the sun appears to follow through the sky.
* Though the sun **appears** to follow a path around the earth, we are actually turning around the sun.
* All the orbits of the planet are elliptical, but they are all on the same plane.
* Since Pluto is not on the plane of the ecliptic, it is tilted, it is not considered to be a planet.

