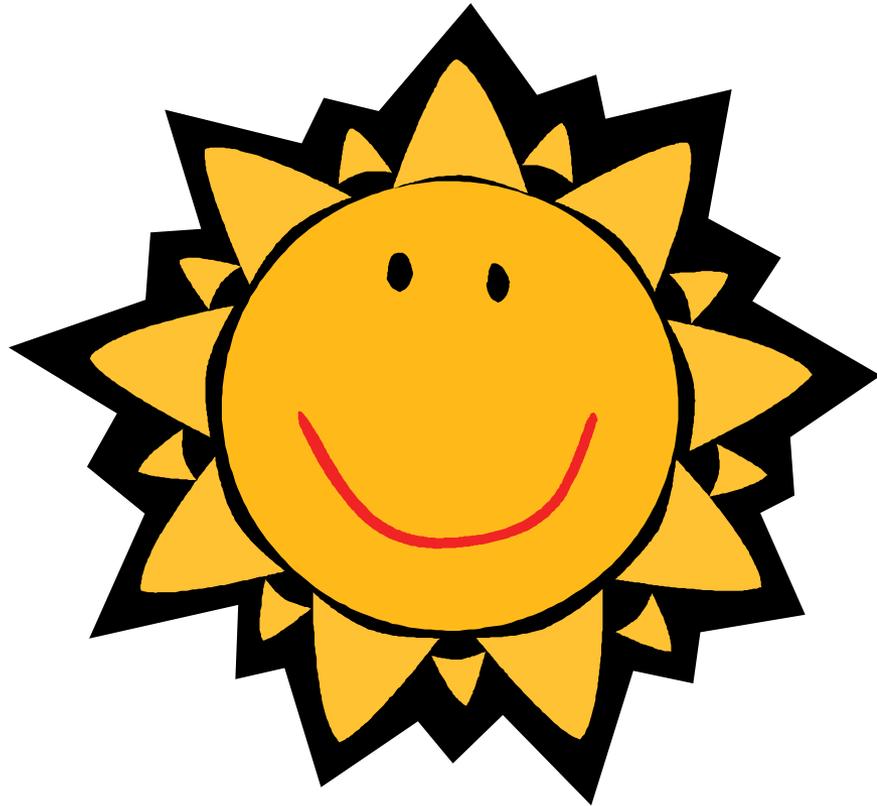
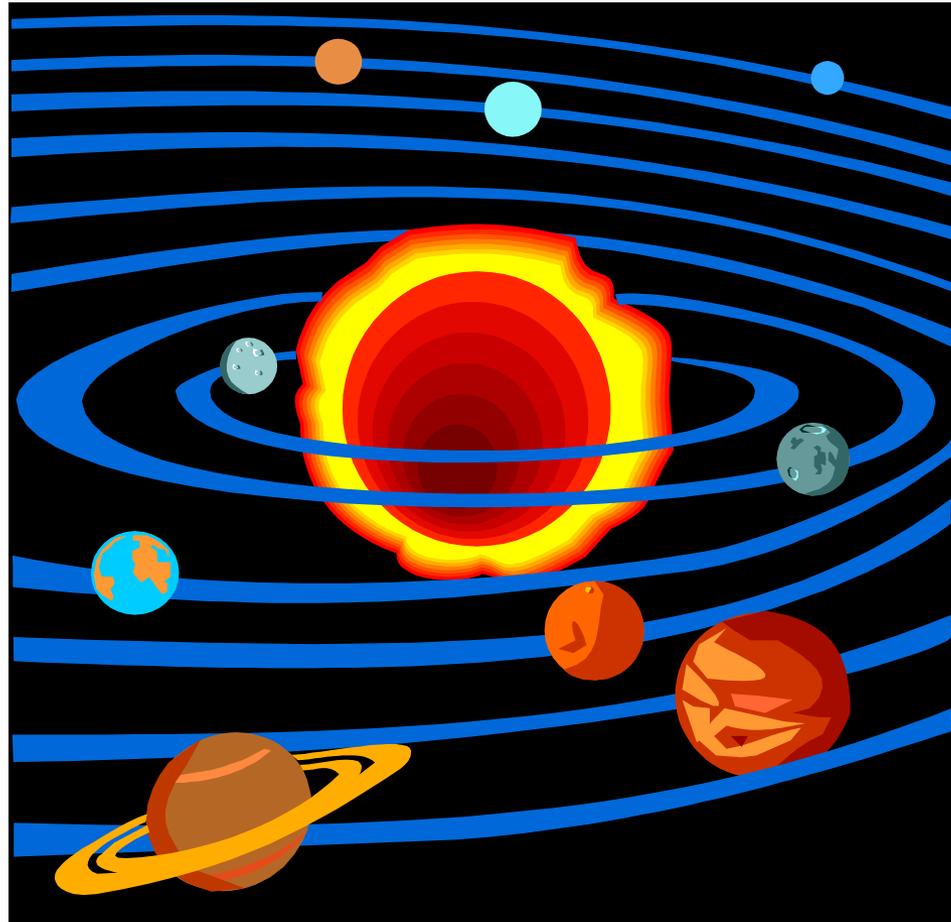


Our Solar System

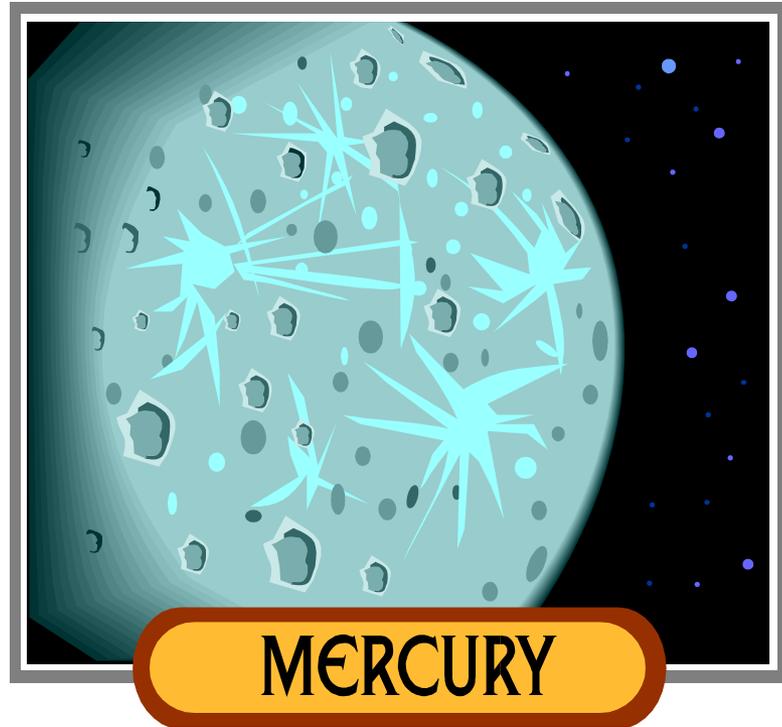
We live in a Solar System that has 1 star Called the Sun



**Eight planets go around the Sun
in paths we call Orbits**



The closest planet is called Mercury



The next closest planet is Venus



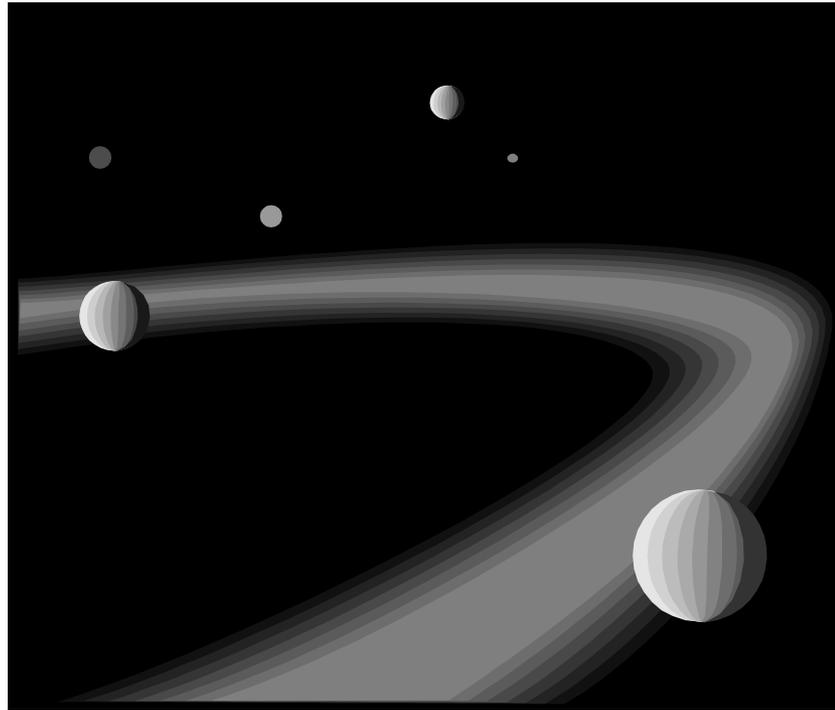
The third planet from the Sun is the one we live on called Earth



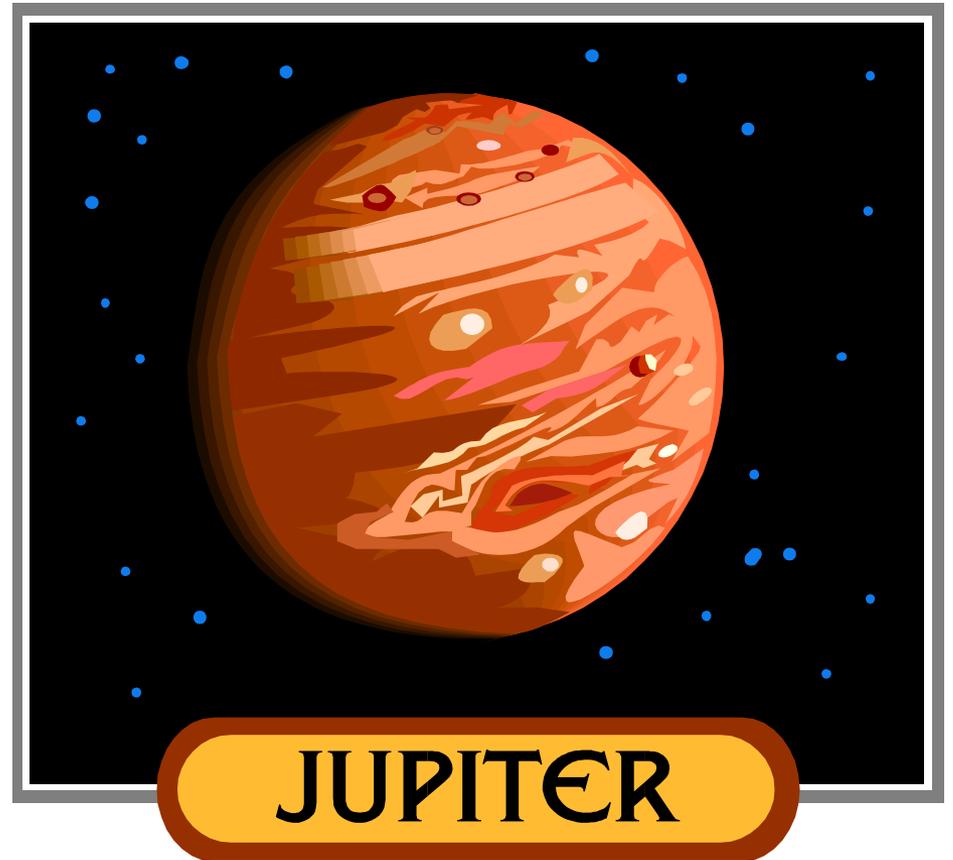
After Earth comes Mars



Between Mars and the next planet is a ring of rocks called the Asteroid Belt



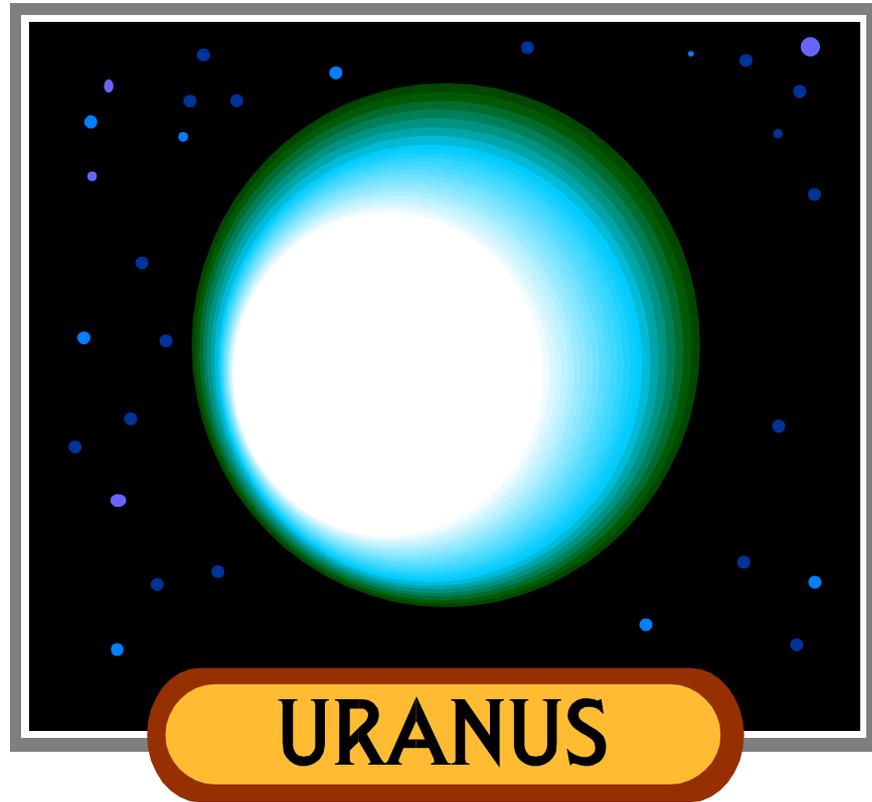
Jupiter, the largest planet is next in line



Saturn is next in line



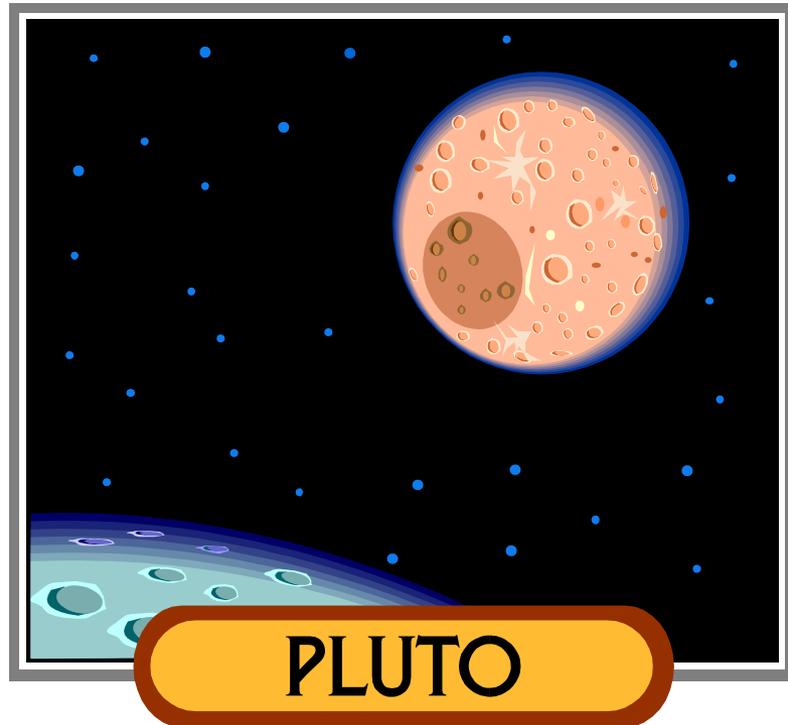
Then Uranus



Neptune



And a small dwarf planet called Pluto



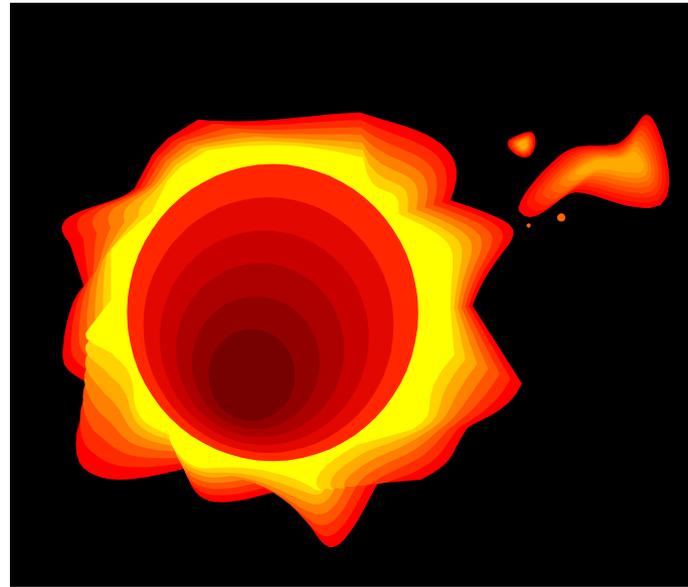
**Scientist wondered how much space the
Solar System takes up.**



**They didn't have tools to measure with,
so they tried to guess.**



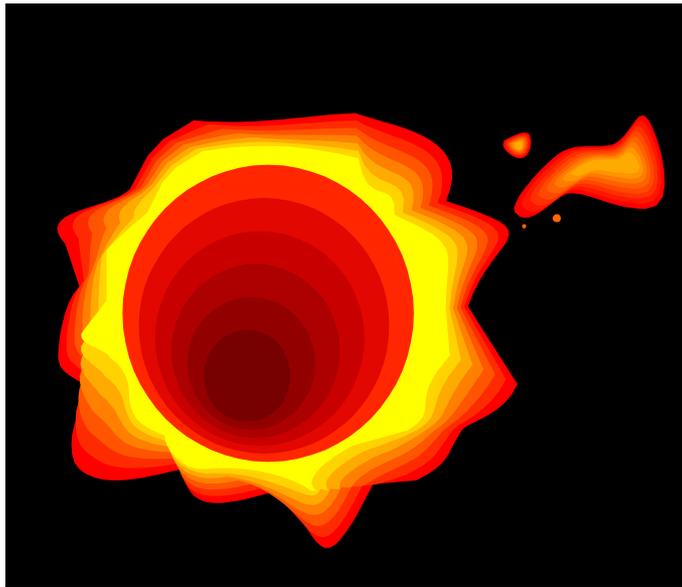
They knew where the sun was...



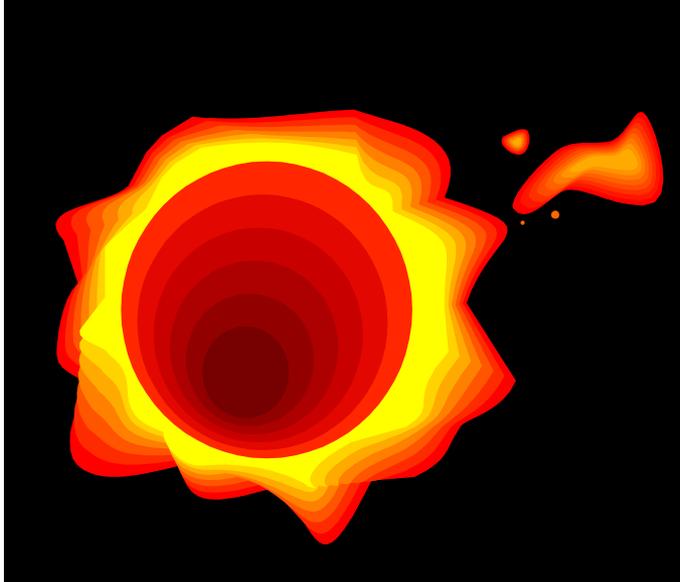
They knew they were on Earth



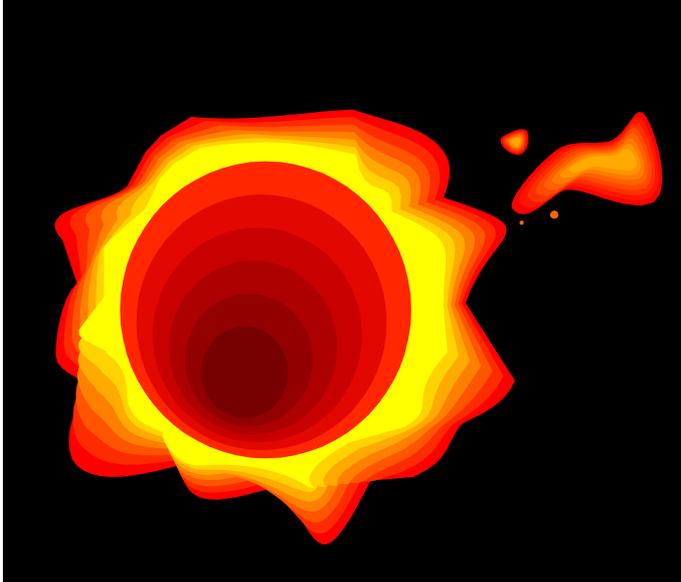
**So they made the distance between the
two their measuring stick**



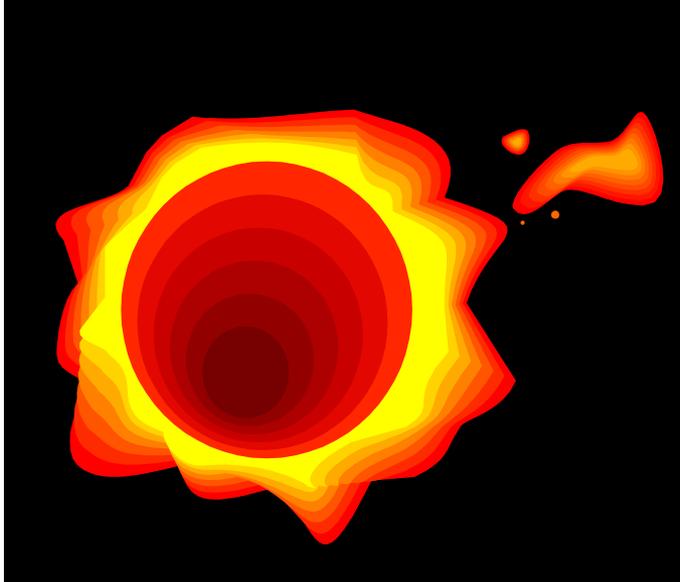
They decided that the distance from the Earth to the Sun would be called One Astronomical Unit



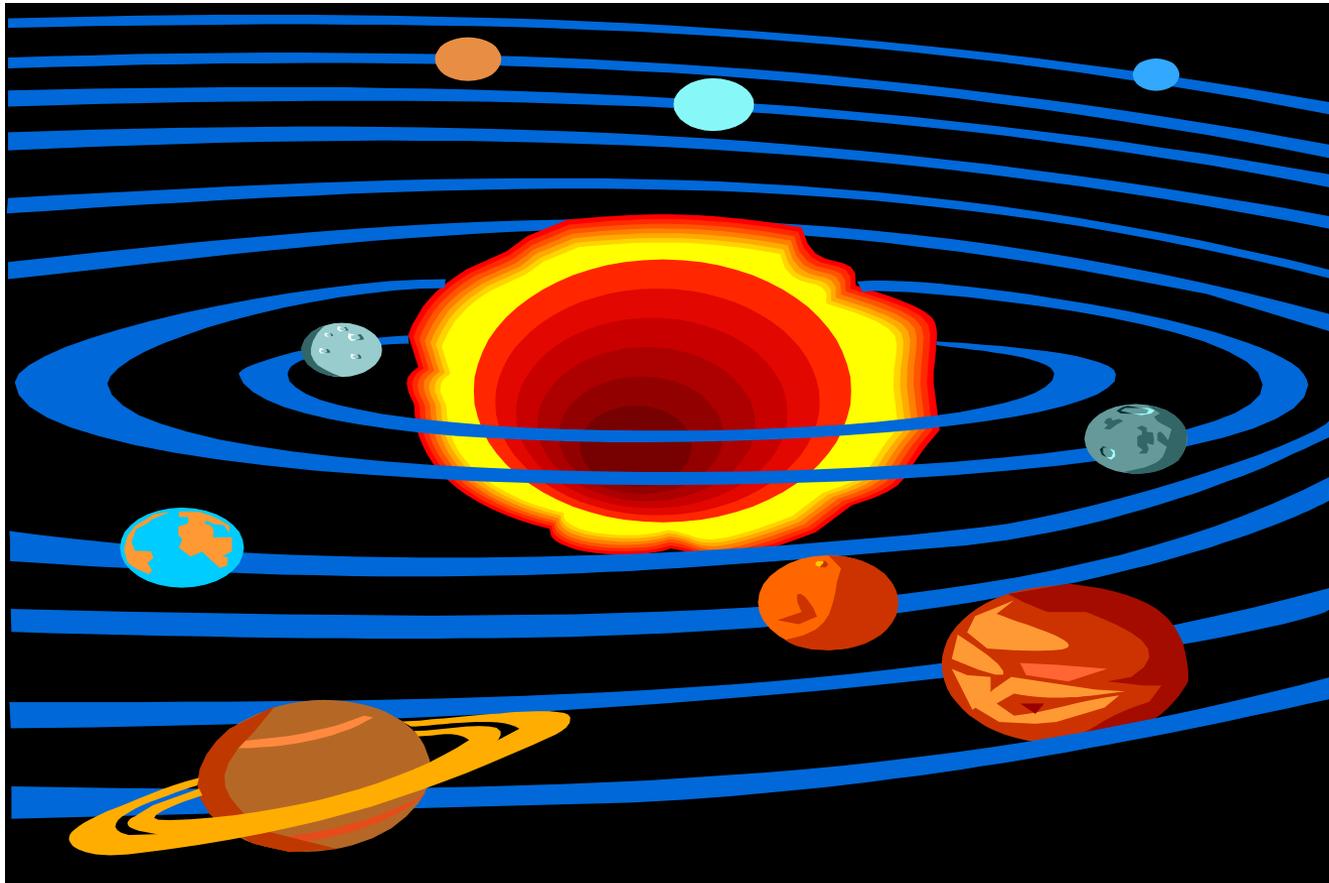
Or
one AU
for short



**If we made a model where
one meter = 1AU**



How many meter sticks would we need to get from the Sun to Pluto?



Let's try it!

Planet	AU's from Sun	How many meter sticks we need
Mercury	0.39	0.39
Venus	.72	.72
Earth	1	1
Mars	1.52	1.52
Jupiter	5.20	5.20
Saturn	9.55	9.55
Uranus	19.2	19.20
Neptune	30.1	30.10
Pluto	39.4	39.40

But WAIT!!!!!!



**With these numbers we have to go back
to the sun to measure for every planet.**

**That will
take
forever!!!**



**With these numbers we have to go back
to the sun to measure.**

**How about
if we find
the distance
between
each one?**



**With these numbers we have to go back
to the sun to measure.**

**Then we
only have to
walk it
once!**



Let's Do the Math!

Planet	AU's from Sun	Meters	Distance to next planet
Mercury	0.387	.38 m	.38 m
Venus	.723	.72 m	.23 m
Earth	1	1 m	.52 m
Mars	1.52	1.52 m	3.68 m
Jupiter	5.2	5.2 m	4.35 m
Saturn	9.55	9.55 m	9.65 m
Uranus	19.2	19.20 m	10.90 m
Neptune	30.1	30.10 m	9.30 m
Pluto	39.4	39.40	

That's still not the whole Solar System



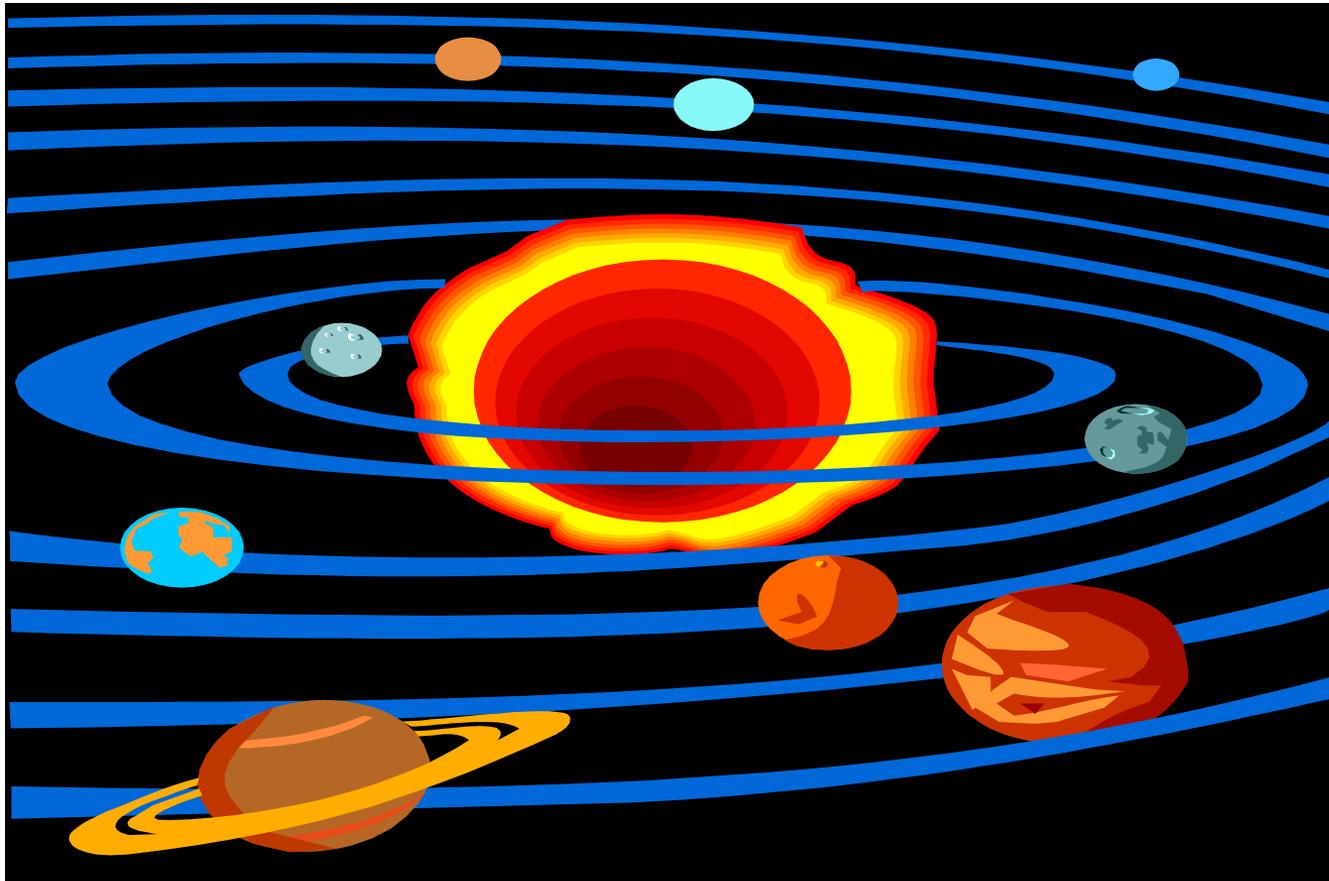
**Planets never line up in a straight line
like we did!**



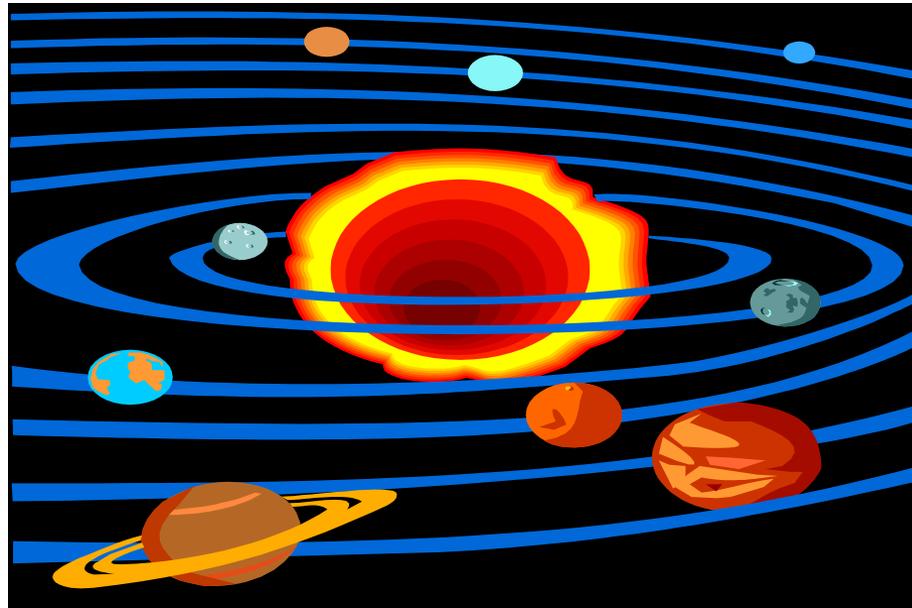
**Planets never line up in a straight line
like we did!**



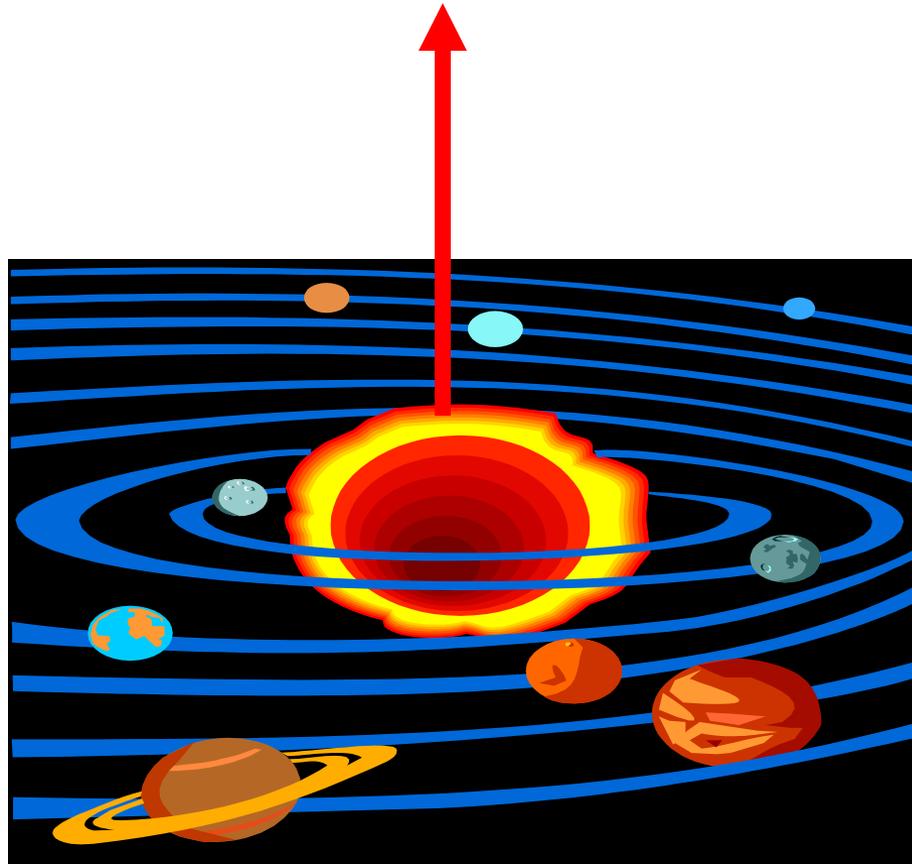
**Some are in the front, some in the back,
some on the side**

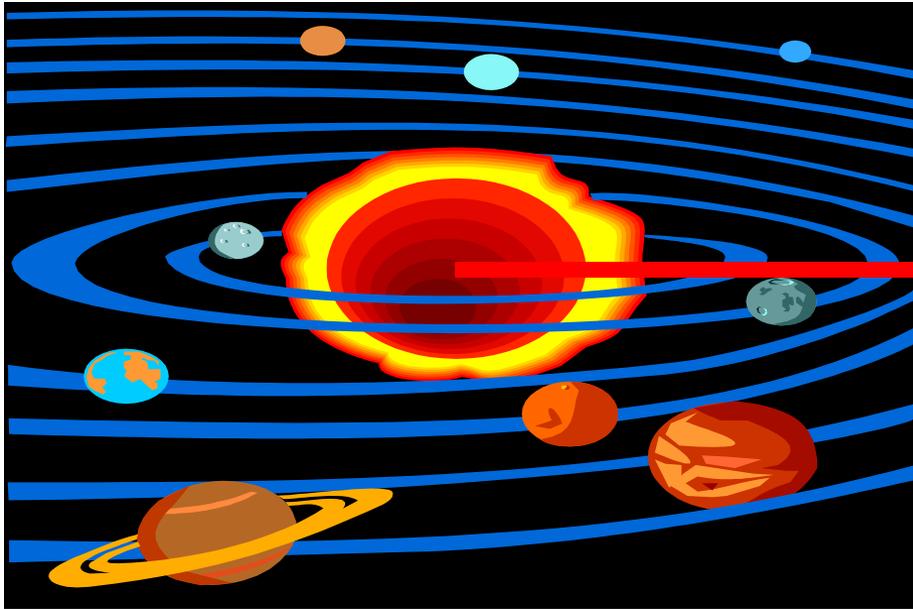


**Our solar system model
would need go out from the sun**

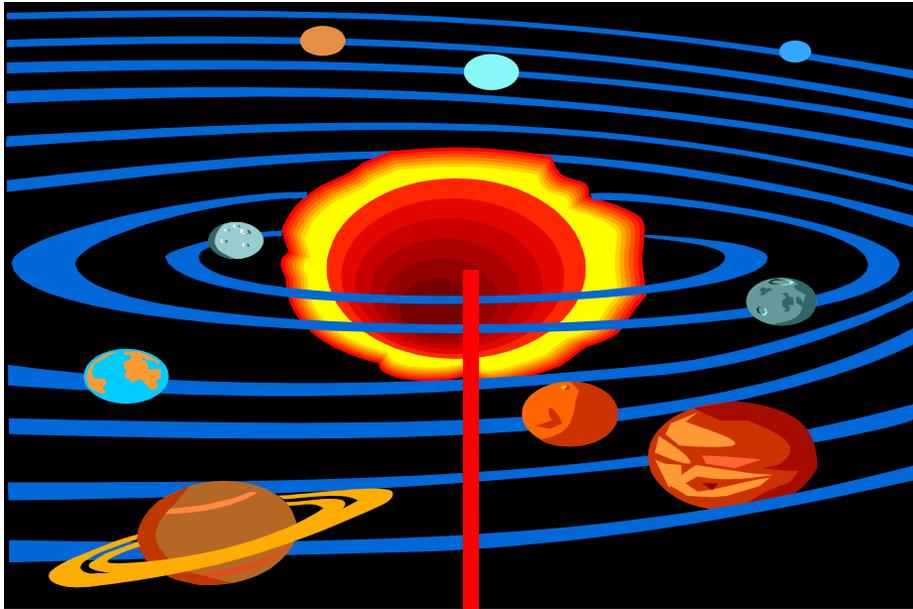


This way



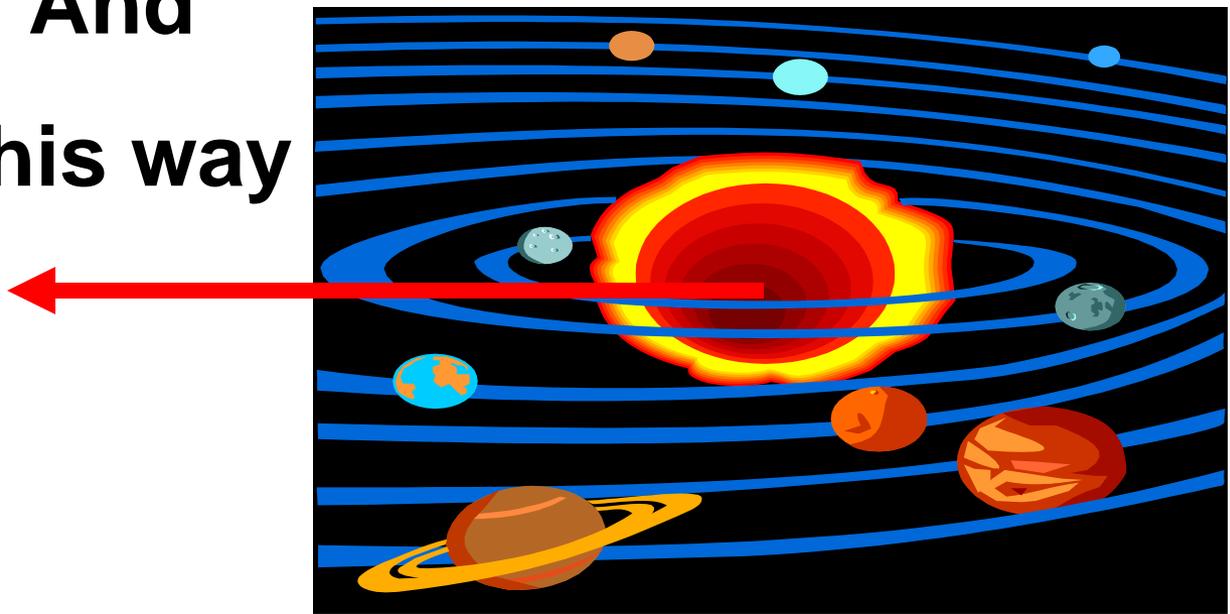


This way

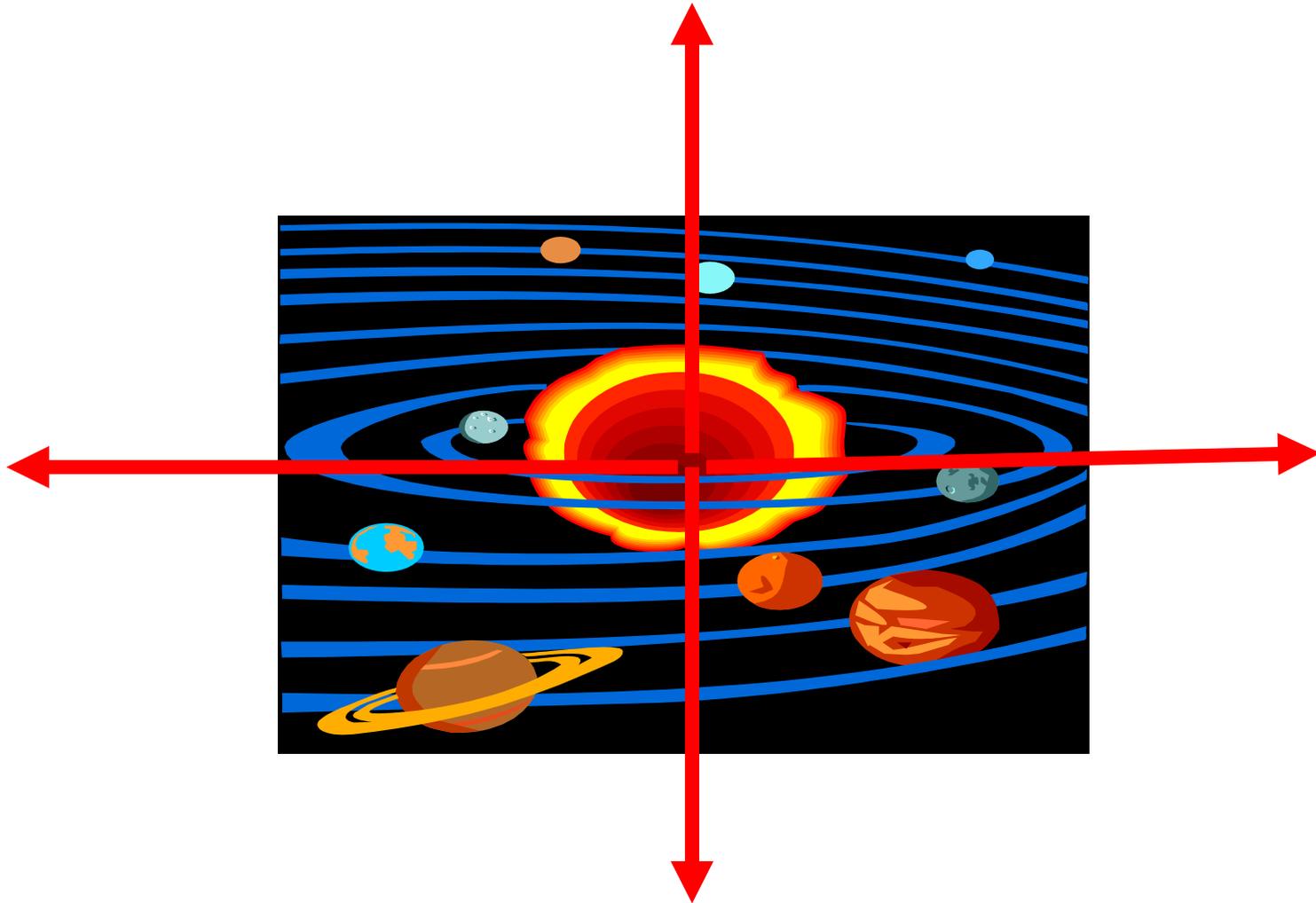


This way

**And
This way**



All at the same time!



Can you imagine how big that is?

