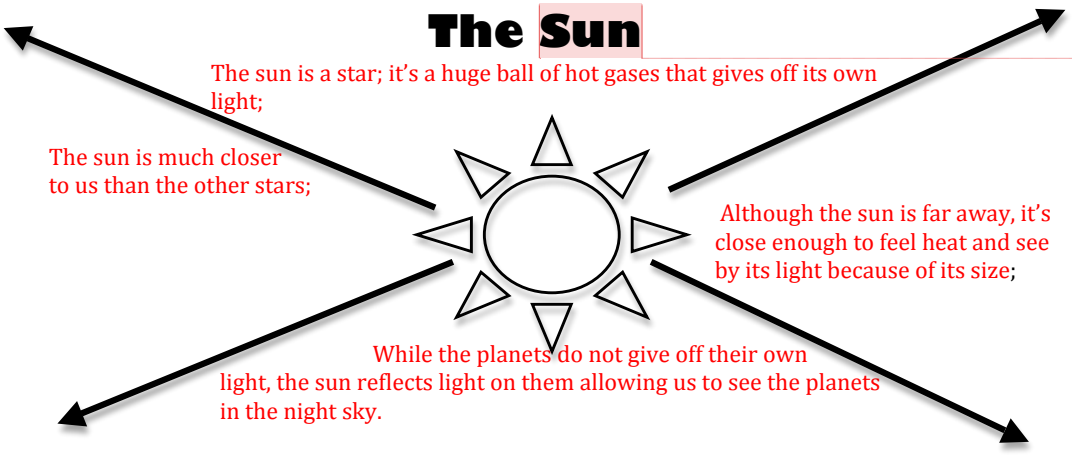
The Planets of the Solar System

#	TERM	DEFINITION
1	PLANET	A large round object that travels in a set path around a star
2	STAR	A huge ball of hot gases that gives off its own light.
3	REVOLVE	To move in a fixed pattern around the sun. reVolve = moVe
4	ROTATE	To spin on an axis. roTate = Turn
5	AXIS	An imaginary line that runs through a planet from its north pole to its south pole.
6	ORBIT	A planet's path around the sun.
7	YEAR	The amount of time it takes for a planet to go around the sun once.
8	DAY	The amount of time it takes for a planet to make one complete spin on its axis.
9	INNER PLANETS	The four planets closest to the sun; they are small and rocky. Ex. Mercury, Venus, Earth & Mars
10	OUTER PLANETS	The four planets farthest from the sun; they are large and gaseous. Ex. Jupiter, Saturn, Uranus & Neptune

The Sun



Shelby County Schools 7/28/11 11:22 PM

Comment [1]: The sun is a star; it's a huge ball of hot gases that gives off its own light; The sun is much closer to us than the other stars; Although the sun is far away, it's close enough to feel heat and see by its light because of its size; while the planets do not give off their own light, the sun reflects light on them allowing us to see the planets in the night sky

The Planets

Similarities & Differences

- All our rounded
- All revolve around the sun
- All have an imaginary axis that runs from the north to south pole
- All rotate on an axis

- Some are made of gas and some are made of rock
- Distance from the sun
- Length of revolution (year)
- Length of rotation (day)
- Number of moons
- All outer planets have rings, but inner planets do not.
- Size/ diameter

Planet Characteristics

Planet	Distance from the Sun million Km	Length of Day In Earth hours/days	Length of Year In Earth hours/days	Diameter (How Big) thousand km	Moons
Mercury	57.9	88 days	88 days	4.88	0
Venus	108	243 days	225 days	12.1	0
Earth	149.6	24 hours	365.26 days	12.76	1
Mars	228	24.6 hours	687 days	6.79	2
Jupiter	778	9.9 hours	11.9 years	143	63
Saturn	1420	10.2 hours	29.5 years	120.5	60
Uranus	2871	17.2 hours	84 years	51.1	27
Neptune	4497	16.1 hours	165 years	49.5	13

1. **What conclusion can you reach from comparing a planet's distance from the sun to the length of its year?**

The farther away from the sun, the longer the revolution (year).

2. **How did you come to this conclusion?**

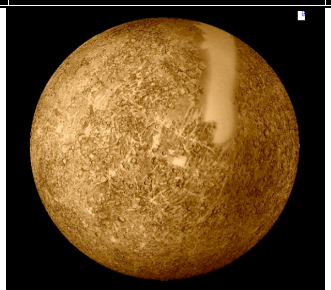
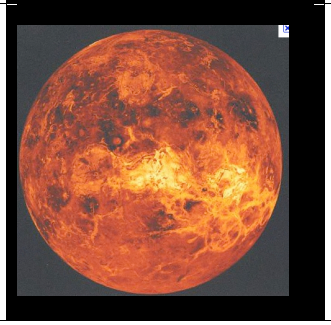
Because it has a longer path/orbit around the sun so it would take longer.

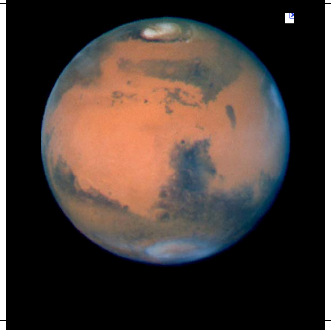
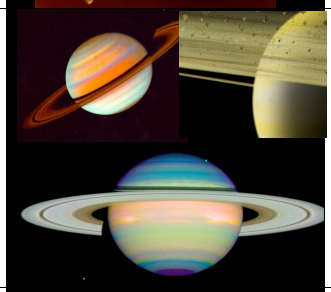
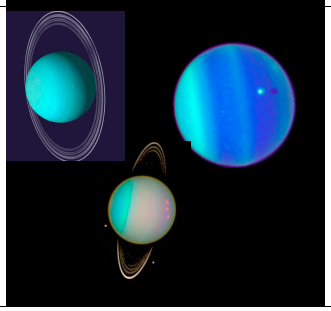
3. **What conclusion can you make regarding a planet's size and the number of its moons?**

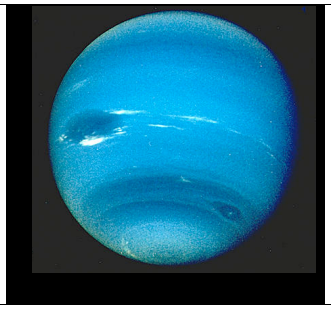
The larger the planet, the more moons it has.

4. **How did you come to this conclusion?**

The bigger and more massive the planet, the more gravitational pull it will have…

PLANET	PHOTO	DESCRIPTION
Mercury		• Shortest orbit/ year • Pockmarked with craters • Little atmosphere • Largest range of temperatures (from -274°F to 662°F) A range of almost 1,000°F)
Venus		• Poisonous, thick atmosphere made of carbon dioxide • Has volcanoes, canyons, mountains, plains, valleys, etc • Temperatures reach up to 896°F making it the hottest planet • no liquid water

Earth		• Perfect conditions for life • Has liquid water; 75% of surface • Average temperature is 68˚F • Atmosphere is 78% Nitrogen, 21% oxygen, and 1% other gases
Mars		• Water once flowed; Now has ice caps on the poles • Called the “Red Planet because of iron Oxide (rust) • Has inactive volcanoes, mountains, valleys, plains, etc. • Has a thin atmosphere of carbon dioxide
Jupiter		• Largest planet • Thick atmosphere made mostly of Hydrogen & Helium • Has the “Great Red Spot” which is a huge storm that has been raging for hundreds of years. • Has thin set of rings
Saturn		• Second largest planet • Has the largest system of rings made of bits of rock & ice • Has a thick atmosphere • Rings can be seen through a telescope
Uranus		• Methane gas gives this planet its bluish green color • It is tilted at a 97˚ angle so it looks like it rotates on its side • Has rings, but not as spectacular as Saturn’s • Cloud temperatures are -357˚F

Neptune		• **Could temperatures are same as Uranus** • **Winds have been measured at 684 miles per hour** • **Surrounded by rings (fewer than Uranus or Saturn)** • **Farthest from the sun**

MOVEMENT OF THE PLANETS IN THE NIGHT SKY

- PLANETS CHANGE THEIR ___POSITION_____ IN RELATION TO THE STARS.

- STARS SEEM TO STAY IN THE SAME ___PLACE_____ WHILE THE PLANETS MOVE TO DIFFERENT PLACES.

- STARS DO MOVE, BUT WE DON'T NOTICE BECAUSE THEY ARE SO FAR AWAY.

- WE SEE THE MOVEMENT OF THE PLANETS BECAUSE THEY ARE ___CLOSER TO US__, AND WE CAN COMPARE THEM TO THE BACKGROUND OF THE STARS.