

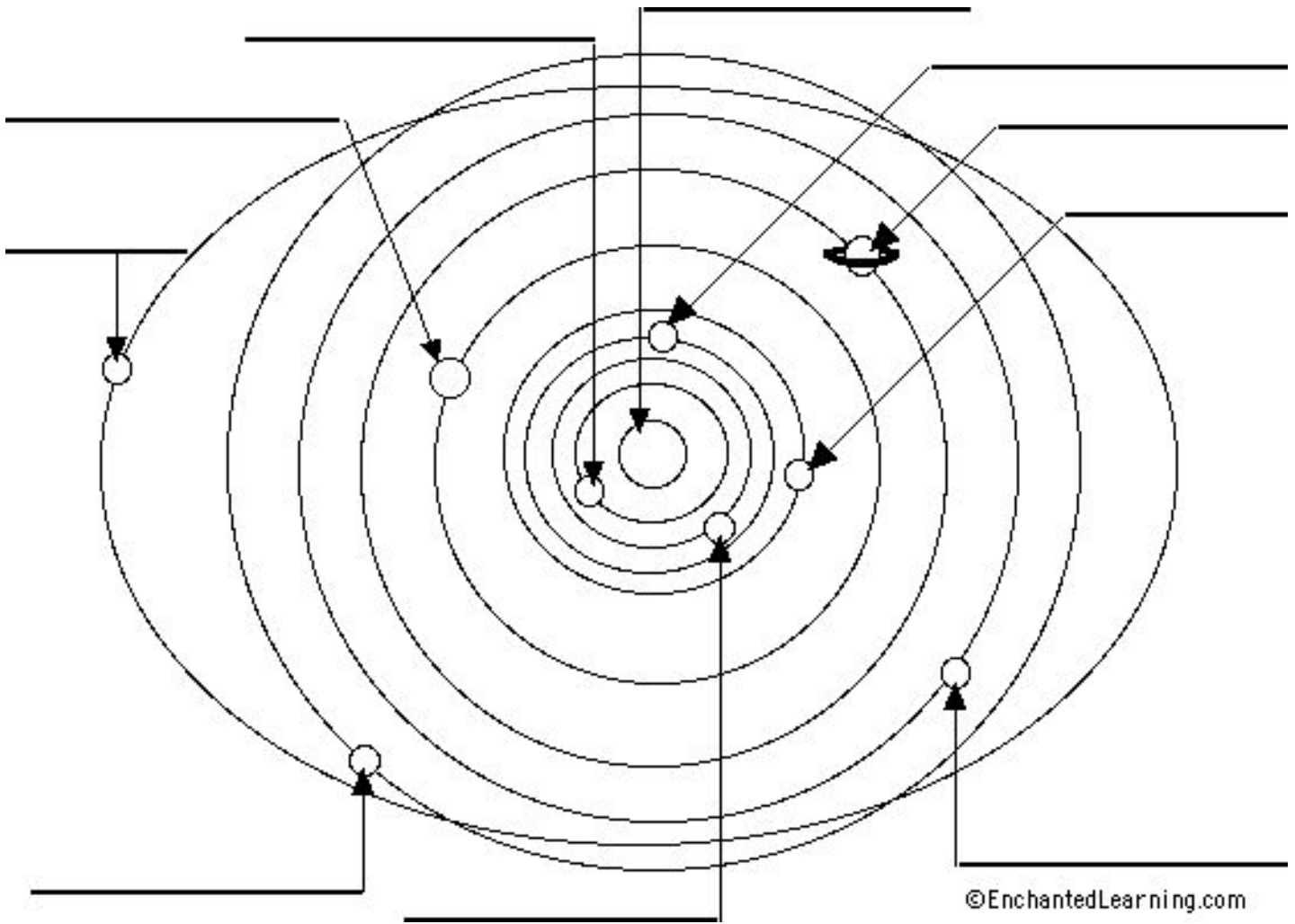
Name _____ Date _____ Hour _____

Got It! 28-21	Not Yet... 20-0
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Astronomy #3 - Study Guide

The Solar System

- 1) What is our solar system made up of?
- 2) The center object in our solar system is the _____. All the other objects _____ in the solar system _____ around it.
- 3) Using the clue sentence name the planets in order.
- 4) Now, label this diagram of the solar system.

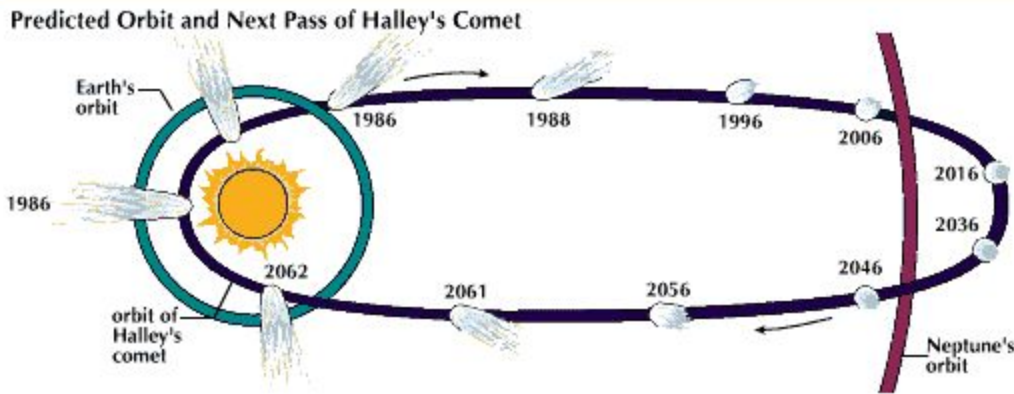


5-9) Complete this table explaining the Inner and Outer Planets.

<p>5) Inner Planets:</p> <p>1- 2- 3- 4-</p>	<p>6) Outer Planet</p> <p>1- 2- 3- 4-</p>
<p>7) Also called the _____ planets _____ (larger / smaller) in size _____ (few / lots of) MOONS _____ (no solid / rocky) surface _____ (can have / no) rings _____ (close to / far from) the Sun _____ (close to / far from) each other</p>	<p>8) Also called the _____ _____ (larger / smaller) in size _____ (few / lots of) MOONS _____ (no solid / rocky) surface _____ (can have / no) rings _____ (close to / far from) the Sun _____ (close to / far from) each other</p>
<p>9) What characteristics are used to classify the planets into these 2 groups?</p>	

10) Which planet is considered Earth's twin? Explain why.

Use this image to help explain some behaviors of comets.



11) What are 2 things that are special about the tail?

12) What is special about the orbit?

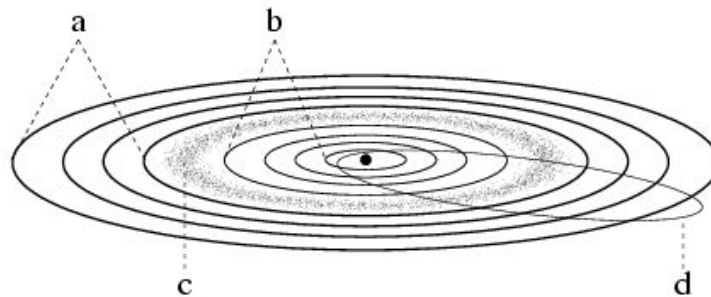
13-14) What is special about the speed of the orbit? What LAW explains this?

15-19) Place the descriptions in the correct columns

	Descriptions	Planet	Asteroid	Comet
15	dirty snowballs			
	small rocky bodies orbiting the Sun			
	large bodies orbiting the Sun			
16	found in orbiting between Mars and Jupiter			
	have extreme elliptical orbits			
	have slight elliptical orbits			
17	orbit in a disk with many others like it			
	have tails			

	Get really close to the sun and then really far from the sun			
18 can be in more than one column	Rotate while they revolve			
	Can have moons			
	orbit in the same plane as the planets			
19	orbit perpendicular to the planets			
	can enter Earth's atmosphere and become a 'shooting star'			
	can have rings			

20) Label a, b, c, and d in the image below.



Use the Solar System Data Chart to answer the questions below.

Solar System Data

Celestial Object	Mean Distance from Sun (million km)	Period of Revolution (d=days) (y=years)	Period of Rotation at Equator	Eccentricity of Orbit	Equatorial Diameter (km)	Mass (Earth = 1)	Density (g/cm ³)
SUN	—	—	27 d	—	1,392,000	333,000.00	1.4
MERCURY	57.9	88 d	59 d	0.206	4,879	0.06	5.4
VENUS	108.2	224.7 d	243 d	0.007	12,104	0.82	5.2
EARTH	149.6	365.26 d	23 h 56 min 4 s	0.017	12,756	1.00	5.5
MARS	227.9	687 d	24 h 37 min 23 s	0.093	6,794	0.11	3.9
JUPITER	778.4	11.9 y	9 h 50 min 30 s	0.048	142,984	317.83	1.3
SATURN	1,426.7	29.5 y	10 h 14 min	0.054	120,536	95.16	0.7
URANUS	2,871.0	84.0 y	17 h 14 min	0.047	51,118	14.54	1.3
NEPTUNE	4,498.3	164.8 y	16 h	0.009	49,528	17.15	1.8
EARTH'S MOON	149.6 (0.386 from Earth)	27.3 d	27.3 d	0.055	3,476	0.01	3.3

21) The unit this chart uses to measure the average distance from the Sun is the _____ . Another unit scientists often use is the _____ which is the distance from _____

22) What unit is being used to compare the mass of the planets?

23) Rank the 8 planets from the the LARGEST to the SMALLEST mass.

_____ / _____ / _____ / _____ / _____ / _____ / _____ / _____

24) The planets with the smallest masses are _____ (inner / outer) planets.

25) What object has the 99.86% of the mass of the solar system?

26) Rank the 8 planets from the SMALLEST density to the GREATEST density.

_____ / _____ / _____ / _____ / _____ / _____ / _____ / _____

27) The planets with the largest densities are _____ (inner / outer) planets.

28) The planet with the smallest period of revolution is _____, and the

planet with the largest period of revolution is _____, this makes sense because

