

Astronomy Notes

Key Words	Definitions, Facts, Examples
Gravity and Motion	
force	<ul style="list-style-type: none"> • a _____ or a _____ • can be when things are in contact <i>and</i> over long _____
gravity	<ul style="list-style-type: none"> • _____ all objects to each other • discovered by Sir Isaac Newton
Law of Universal Gravitation	<ul style="list-style-type: none"> • every object in the _____ attracts every other object
Mass	<ul style="list-style-type: none"> • the amount of _____ in an object • mass always stays the same
weight	<ul style="list-style-type: none"> • the force of _____ on an object • changes depending on _____ • ex - you weigh less on the _____
gravity and distance	<ul style="list-style-type: none"> • the strength of gravity is affected by _____ • the farther the distance, the _____ strength
inertia (in-er-sha)	<ul style="list-style-type: none"> • the tendency of an object to resist a _____ in motion • ex. - when you are riding in a car and someone puts on the brakes your body continues to move _____.
Newton's first law of motion	<ul style="list-style-type: none"> • "An object at rest will _____ at rest and an object in _____ will stay in motion unless acted upon by a force."
the moon	<ul style="list-style-type: none"> • the combination of the forces of gravity and inertia are the reasons why the moon continues in its orbit around the earth <ul style="list-style-type: none"> ○ _____ keeps it from flying off into space ○ _____ keeps it moving around the earth and not crashing into it!

The Solar System	
solar system	<ul style="list-style-type: none"> • made up of <ul style="list-style-type: none"> ○ the sun ○ 8 _____ ○ at least a dozen _____ planets ○ moons of the planets ○ several kinds of smaller objects ○ all _____ around the sun
orbit or revolution	<ul style="list-style-type: none"> • an object's path as it moves _____ the sun • ex - it takes the earth _____ days to orbit around the sun 1 time
rotation	<ul style="list-style-type: none"> • when a planet or moon spins on its _____ • ex - it take Venus _____ days to rotate one time
the inner planets	<ul style="list-style-type: none"> • _____, Venus, _____, Mars • small planets with rocky surfaces • sometimes called terrestrial
the outer planets	<ul style="list-style-type: none"> • Jupiter, _____, Uranus, _____ • large planets with no solid surface • solid core surrounded by _____ • sometimes called gas giants
dwarf planets	<ul style="list-style-type: none"> • _____, Sedna, Orcus, Quaoar, and many others • very small, _____ planets
smaller objects	<ul style="list-style-type: none"> • comets, meteors, asteroids • _____ the sun
comets	<ul style="list-style-type: none"> • loose collections of _____, dust and small particles that revolve around the sun in long narrow orbits
meteors	<ul style="list-style-type: none"> • chunks of _____ in space • called a meteoroid while still in _____ • called a meteor when it hits the earth's atmosphere and burns up <ul style="list-style-type: none"> ○ this is called a shooting star • called a _____ if it hits the ground
asteroids	<ul style="list-style-type: none"> • rocky objects in space that are too _____ and too numerous to be considered planets • some are big enough to be called dwarf planets <ul style="list-style-type: none"> ○ ex. Ceres, Pallas • most orbit the sun between Mars and Jupiter

Stars, Galaxies, and The Universe	
stars	<ul style="list-style-type: none"> • huge spheres of _____ gas • made mostly of _____ • creates energy through nuclear fusion • our sun
constellations	<ul style="list-style-type: none"> • imaginary pictures of people or animals formed by the _____ • ex. - the big dipper, Orion
galaxies	<ul style="list-style-type: none"> • a huge group of stars that are bound together by _____ • There are _____ of galaxies in the universe • the largest have more than a trillion stars (1,000,000,000,000) • three types <ul style="list-style-type: none"> ○ spiral ○ elliptical ○ irregular
spiral galaxy	<ul style="list-style-type: none"> • galaxy with a _____ in the middle and arms that spiral outward • looks like a pinwheel • our solar system is in a spiral galaxy called The _____ Way
elliptical galaxy	<ul style="list-style-type: none"> • look like _____ or flattened balls • contain billions of stars
irregular galaxy	<ul style="list-style-type: none"> • does not have a regular shape • usually smaller than other galaxies
the Universe	<ul style="list-style-type: none"> • _____ of Space and _____ in it.