This study guide belongs to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Test Date: \_\_\_\_\_\_\_\_

**Unit 2: Astronomy Study Guide**

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| **solar system**   * A group of objects (a system) in space that move around a central star(s) | | **Sun**   * the star at the center of our solar system * Latin: Sol | |
| **Mercury**   * smallest planet * nearest planet to the sun * named after Roman God of travel   *\*fastest orbit* | | **Uranus**   * 7th planet from Sun * rotates on its side, likely due to a large impact * blue green color * named after Greek god of the sky and heavens | |
| **Venus**   * 2nd planet from the sun * hottest planet * similar to size and mass of Earth * named after Roman Goddess of love and beauty   *\*runaway greenhouse effect*  *\*was once like Earth* | | **Neptune**   * 8th from the sun * no atmosphere (other than its own gaseous body) * high methane content * named after Roman god of the sea   *\*had a great dark spot, but no longer observed* | |
| **Earth**   * 3rd planet from the sun * only planet in the solar system where life is known to exist   *\*only planet not named after Greek/Roman mythology*  *\*You are here!* | | **Pluto**   * Since 2006, no longer termed planet * now called “Dwarf Planet” * irregular orbit   *\*named after Roman god of the underworld* | |
| **Mars**   * 4th planet from the sun * known as the "Red Planet" due to high levels of iron exposed to oxygen (crust)   *\*named after Roman god of war*  *\*was once like Earth* | | **Inner Planets**   * Small, rocky, *terrestrial* planets * orbit closest to the sun * include Mercury, Venus, Earth, & Mars | |
| **Jupiter**   * 5th planet from Sun * has the most moons * largest planet * gas giant * has a large red spot   *\*named after Roman King of gods*  *\*would be 6th planet, if Ceres was classified as a planet!* | | **Outer Planets**   * Jupiter, Saturn, Uranus, & Neptune * called Gas Giants * no surface | |
| **asteroid**   * a small rocky body orbiting the sun | |
| **Saturn**   * 6th planet from the sun * yellow in color * has large icy rings * second largest planet   *\*could float in water (with a big enough tub!)*  \**named after Roman god of agriculture* | | **asteroid belt**   * A loose grouping of asteroids and meteors * between the orbits of Mars and Jupiter * separates the inner and outer planets   *\*includes a large body called Ceres* | |
| **(Earth) day:**   * the time is takes for Earth to make one full rotation on its axis (24 hours)   *\*other planets have different day lengths* | **axis**   * An imaginary line that runs through both geographic poles of a planet | |
| **seasons**   * caused by a combination of Earth’s tilted axis and its revolution around the Sun * marked by particular weather patterns and daylight hours in an area   *\*result of the formation of the moon* | **astronomy**   * the study of the moon, stars, and many other objects in space | |
| **(Earth) year:**   * 365 (and ¼) days * the time required for the Earth to complete one full revolution around the Sun   *\*other planets have different year lengths!* | **nebula**   * a cloud of gas and dust in space * found in interstellar (between stars) [space](https://kidsastronomy.com/the-universe/outer-space/) * “star nursery”   *\*plural = nebulae* | |
| **rotation**   * The spinning of an object on its axis | **constellation**   * a group of stars that form a pattern   88 constellations recognized | |
| **revolution**   * The movement of an object around another object | **gravity**   * The force that pulls two objects toward each other   *\* keeps us from flying/falling into space!* | |
| **orbit**   * (noun) The path an object takes as it moves around another object * (verb) to revolve around an object | **moon:**   * natural satellite that revolves around a planet * Earth has 1   *\*some frozen rocks in space also have moons!* | |
| **satellite**   * object that revolves around another object in space * can be natural (moon) or man-made | **tides**  The repeated rise and fall in the level of the ocean, caused by the gravitational pull of the moon | |
| **moon phases:**   * The different shapes the Moon appears to have in the sky when observed from Earth   *\*from the moon, Earth appears to have phases!* | **lunar cycle**   * The time it takes for the Moon to complete one full orbit around Earth * About 4 weeks/1 month (actually 29 1/2 days) | |

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**Study Tips**

* Look through ALL of your notebook pages for this unit
* Review my website videos and Quizlets! <http://newnham4th.weebly.com/unit-1-astronomy.html>
* Teach the material to a parent, sibling, or anyone else. If you can teach it, then you know it well!
* Study a little bit each day. Don’t wait until the last minute!

