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| Occurs when the moon’s period of rotation equals its orbital period (of revolution). Explains why we only see one side of the moon  The time it takes the moon to revolve once around Earth; equals 27.3 days | **Synodic month**  The moon is NOT visible to us on earth during this phase.  **Synchronous rotation** | The average distance between the earth and the moon.  **Giant impact theory**  The time it takes the moon to complete one complete set of phases; equals 29.5 days | The most likely theory of moon formation; states that the moon was bombarded by a large, Mars-sized object  Phase which occurs when half of the moon is visible from earth |
| Earth’s rotational period  **Sidereal month**  **Lunar highlands** | **New moon phase**  The dusty, rocky material that makes up the moon “soil”  **Waning crescent phase**  **24 hours** | A lunar eclipse may occur when the moon is in this phase  **Full moon phase**  **Moon’s revolution**  **Regolith**  **384,000 km** | **Quarter moon phase**  Tides that are weaker than normal and occur during the quarter moon phases |
| Light-colored, mountainous regions on the moon  **Aphelion** | The point in earth’s orbit when it is furthest from the sun; occurs in July  The moon phase which occurs a few days before the new moon  **Winter solstice** | This motion causes us to see moon phases on earth  The northern hemisphere has the least amount of daylight  **equator** | **Neap tides**  Receives direct sunlight on the equinoxes; always experiences 12 hours of day and night |