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| **Earth & Moon Notes** |
| **The Moon**   * A natural satellite that orbits around the earth   + \_\_\_\_\_\_\_\_ away from Earth * The Moon is moving away from Earth at a rate of \_\_\_\_\_\_\_ cm per year. * The moon most likely formed from a \_\_\_\_\_\_\_\_\_\_\_\_ between the Earth and a Mars-sized planet during the formation of the solar system |
| **Terrain of the Moon**   * There are two primary types of terrain on the Moon: * The heavily created **\_\_\_\_\_\_\_\_\_\_\_\_** * The relatively smooth and younger **\_\_\_\_\_\_\_\_\_\_\_\_**   + The maria has huge impact craters that were later filled with molten \_\_\_\_\_\_\_\_\_\_\_\_ * Most of the surface is covered with \_\_\_\_\_\_\_\_\_\_\_\_, a mixture of fine dust and rocky debris produced by meteor impacts   **Craters**   * The Moon’s heavily cratered surface is the result of intense pummelling by space debris between 4.1 billion and 3.8 billion years ago * The scars of these impacts, seen as \_\_\_\_\_\_\_\_\_\_\_\_ have not eroded much for two main reason:   + It is not \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ * No \_\_\_\_\_\_\_\_\_\_\_\_ |
| **Lunar Cycle**   * It takes the Moon an average of \_\_\_\_\_\_\_ days to make a complete orbit around the Earth * During it’s orbit around the Earth, the moon appears to change it’s \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_   + These different changes are called \_\_\_\_\_\_\_\_ * What causes the change of shape? * The phases are not formed by the \_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_ * The sun illuminates the same portion of the moon * What we see as changing phases are actually just different \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ of the reflected sunlight off the Moon |
| **Tides**   * The rising and falling of ocean water is called the \_\_\_\_\_\_\_\_ * What is it caused by?   + The \_\_\_\_\_\_\_\_\_\_\_\_\_ force from the Moon, the Sun has a smaller effect * Why is there high tide on the near and far sides? * The pulling force from the moon has two effects:   + 1. The water near the moon \_\_\_\_\_\_\_\_   + 2. As the Earth is pulled towards the Moon, the planet drags the ocean on the far side with it * The points in between are \_\_\_\_\_\_ tides * \_\_\_\_\_\_\_\_ tide: when the Moon, Sun and Earth are lined up pulling the water producing \_\_\_\_\_\_\_\_ than normal tide. Named for the way they spring up. * \_\_\_\_\_\_\_\_ tide: when the Moon and Sun are not in line, the tides are \_\_\_\_\_\_\_\_ |
| **Eclipse**   * An eclipse occurs when a celestial object \_\_\_\_\_\_\_\_ the normal view of another celestial objet * Two Types:   + \_\_\_\_\_\_\_\_ eclipse - Sun   + \_\_\_\_\_\_\_\_ eclipse - Moon |
| **Solar Eclipse**   * Solar eclipses occur when the \_\_\_\_\_\_\_\_ comes between the \_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_      * The Moon is so small, its full shadow only covers a small portion of the Earth   + This area is said to undergo a \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ * Total solar eclipses last under \_\_\_\_\_ min |
| **Lunar Eclipse**   * Lunar eclipses occur when the \_\_\_\_\_\_\_\_ comes between the \_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_      * Earth’s \_\_\_\_\_\_\_\_ causes the full moon to slowly disappear * Lunar eclipse can last up to \_\_ hours and \_\_\_ minutes |
| **Your Assignment**   * Planet cut-out activity * Do:   + 12.4 CYU Q#2-8, 16-19 |