

Chapter 25.2 and 24.3 Moon Phases, Eclipses, and Tides Test: Geology 1P, Mr. Traeger

Name: _____

Period: _____

Date: _____

Section	Major Questions to be asked and/or tasked to be measured	Where do I find the information and/or where did we learn this?
25.2	<p><u>The Moon's Motions</u></p> <ul style="list-style-type: none"> ▪ How does the moon orbit the Earth? Does it orbit in a perfect circle or in an elliptical shape? ▪ How were your lunar observations evidence of the fact that the Moon orbits the Earth? How were your lunar observations evidence that the Earth rotates (spins on its axis)? ▪ How many minutes later does the moon rise each day? WHY does the Moon rise later each day? ▪ What are the phases of the moon? Waxing, waning, gibbous, crescent, full moon, new moon, first quarter, third quarter? You need to be able to recognize and name the phases as seen from Earth AND recognize and name the phases being created as seen from a bird's eye view above the Sun, the Earth, and the Moon. ▪ What are lunar eclipses and how do they form? What two special conditions are required for their formation? Know how to draw the ray path geometry of these eclipses. ▪ What are solar eclipses and how do they form? What two special conditions are required for their formation? Know how to draw the ray path geometry of these eclipses. ▪ Why are lunar eclipses generally more common than solar eclipses and why do they last much longer in duration? 	<ul style="list-style-type: none"> ▪ Section 25.2 Homework ▪ Lunar Calendar made in class ▪ Lunar observation sheet done at home ▪ Moon's motions lunar pictures activity ▪ Various animations available in classwork section of class website. ▪ Starry Night lunar phases and eclipses activity done in class.
24.3	<p><u>Tides</u></p> <ul style="list-style-type: none"> ▪ What causes tides? What causes tides to change throughout the day? What causes tides to change over the course of a lunar cycle? ▪ What are spring tides and in what phases of the moon do they occur? ▪ What are neap tides and in what phases of the moon do they occur? ▪ Why is it that Earth experiences two tidal bulges in opposite directions? ▪ What has more effect on tides? The moon or the sun? Why is this given the formula $F_{\text{gravity}} = Gm_1m_2/r^3$ ▪ *Know how to calculate the comparative forces of two massive objects using $F_{\text{gravity}} = Gm_1m_2/r^2$ 	<ul style="list-style-type: none"> ▪ Section 24.3 Homework ▪ Forces on the Tides worksheet and homework problem detailing Newton's Law of Gravitation ▪ Various animations available in classwork section of class website. ▪ Pilgrim Tides activity done in class