

Name: _____

Date: _____

Outdoor Laboratory: Observing the Planets

Introduction

Observing the bright planets (Venus, Mars, Jupiter, Saturn) can be accomplished with binoculars or a telescope. The striking rings of Saturn; the colorful bands of Jupiter; the orange/red of Mars and its bright pole can all be observed. If you are using a telescope or high power binoculars, the Great Red Spot of Jupiter might also be observed if it's transiting during the observing session.

The Galilean Moons of Jupiter (*Io, Europa, Ganymede, Callisto*) are easily observed as are most of the eight brightest moons of Saturn (*Mimas, Enceladus, Tethys, Dione, Rhea, Titan, Hyperion, Iapetus*). The Peterson Field Guide is your best reference for the planetary features that are observable, what to look for, and what to expect.

Since the positions of the planets are changing constantly with respect to the stars, your instructor will help you identify the planets that are available to observe on your class night.

Procedure

Tonight, you will observe the planets that are available in the night sky. During your observation of each planet, you will complete a sketch of what you see in the eyepiece and any other details noted by your instructor.

1. Complete the included "Planet Observing Log".
2. Sketch each planet you can observe on the supplied Planet Observing Log. If observing Jupiter or Saturn, pay close attention to the positions of their moons and include them in your sketch. If observing Mars, look for the polar ice capped regions. If observing Venus, be sure to sketch the phase as accurately as possible.
3. In the notes section for each planet, include the horizontal coordinates (azimuth, altitude). Remember, a closed fist extended at arm's length is approximately 10 degrees on the sky. You may use a compass app on your smart phone to determine azimuth or simply estimate. Include any other notable features you observe for each planet.