

**Astronomy Projectette:
The Solar System**

Write answers to the questions given below. Use your textbook and/or thoughtful reasoning to answer the questions. Use the bottom part or back of this page as necessary.

1. Why do we see Mercury and Venus only around sunset and sunrise, but not in the middle of the night?
2. What information can be deduced from the magnetic field of a planet?
3. What two main factors determine how dense a planet's atmosphere will be? In other words, what two factors determine how well a planet is able to hold on to the gases that surrounds its solid surface?
4. Give three main factors that affect how bright a planet appears in the sky. Explain why Venus, Mars, Jupiter, and Saturn are fairly bright to the naked eye, whereas Mercury, Neptune, Uranus, and Pluto are either not visible at all or are very dim.
5. Give three or more reasons why life, as we know it, cannot exist on Mars.
6. A planet is 5.2 AU from the Sun.
 - a. Using Kepler's Third Law, calculate the orbital period of this planet.
 - b. What planet is this?
7. A planet is 1.5 AU from the Sun.
 - a. Using Kepler's Third Law, calculate the orbital period of this planet.
 - b. What planet is this?
8. For each of the 8 planets plus Pluto, state one especially significant fact.
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - 6.
 - 7.
 - 8.
 9. Pluto:
9. On the back of this page, diagram to scale the planets of the Solar System.