_____
Pathfinder's Name

Stars

❑ **1.** Answer the following questions:
What is the earth's nearest celestial neighbor? _____

What is its distance from the earth? _____

What governs the tides? _____

What causes an eclipse? _____

What is a shooting star? _____

❑ **2.** Make a diagram showing relative positions and movements of the earth, sun, and moon. Show positions and area events for eclipses of the sun and moon. One may demonstrate by using an orange, walnut, and marble, or similar objects, to show positions and movements of the earth, sun, and moon when there is an eclipse of the sun and when there is an eclipse of the moon.

❑ **3.** Make a diagram of our solar system

Name the planets in order from the sun.

1. _____ **6.** _____

2. _____ **7.** _____

3. _____ **8.** _____

4. _____ **9.** _____

5. _____

❑ **4.** How fast does light travel? _____

How far does light travel in a year? _____

❑ **5.** What is the difference between planets and fixed stars?

_____

Identify in the sky eight fixed stars.

1. _____ **5.** _____

2. _____ **6.** _____

3. _____ **7.** _____

4. _____ **8.** _____

❑ **6.** What is a constellation? _____

_____

Name and point out six.

1. _____ **4.** _____

2. _____ **5.** _____

3. _____ **6.** _____

Name two constellations visible throughout the year.

1. _____ **2.** _____

❑ **7.** For the Northern Hemisphere: draw a chart of the Big Dipper, Cassiopeia, and the North Star. For the Southern Hemisphere: draw a chart of the Southern Cross, Orion and Scorpio.

❑ **8.** What is the Milky Way? Observe the Milky Way in the night sky.

_____

_____

❑ **9.** What is the morning star and evening star?

Morning star _____

Evening star _____

Why does it carry both names? _____

Observe the morning and evening star in the sky.

❑ **10.** Explain zenith and nadir.

Zenith _____

Nadir _____

❑ **11.** What is the aurora borealis? _____

_____

_____

What causes it? _____

_____

❑ **12.** Discuss the statement made by Ellen G. White in *Early Writings*, page 41, concerning the opening in Orion.

_____

_____

_____

_____

_____

_____

_____

_____

Date completed _____ Instructor's Signature _____

_____

Pathfinder's Name

Stars, Advanced

❑ **1.** Have the Star Honor.

❑ **2.** How can you account for the apparent daily motion of the stars?

_____

❑ **3.** What are each of the following:

Planet _____

_____

Meteor _____

_____

Constellation _____

_____

Satellite _____

_____

Meteorite _____

_____

Fixed star _____

_____

Comet _____

_____

Nebula _____

_____

Sunspot _____

_____

Identify personally or from pictures an example of each.

❑ **4.** Define the following terms:

Celestial sphere _____

_____

Horizon _____

_____

Transit _____

_____

Celestial pole _____

_____

Right ascension _____

_____

Conjunction _____

_____

Celestial equator _____

_____

Declination _____

_____

Ecliptic _____

_____

❑ **5.** Explain the major difference between a refractor and reflector type of telescope.

Refractor _____

_____

Reflector _____

_____

Describe an equatorial telescope mounting _____

_____

_____

❑ **6.** Into what colors is sunlight dispersed when passed through a prism?

_____

_____

In what way are colors of stars used to indicate their temperature?

_____

_____

_____

❑ **7.** What connection is there between the ecliptic and the vernal and autumnal equinoxes?

_____

_____

_____

_____

_____

_____

What dates are usually associated with the equinoxes?

_____

❑ **8.** Learn the 12 constellations called the signs of the zodiac.
Know the history of the signs of the zodiac.

1. _____ **7.** _____

2. _____ **8.** _____

3. _____ **9.** _____

4. _____ **10.** _____

5. _____ **11.** _____

6. _____ **12.** _____

History _____

_____

_____

❑ **9.** Identify by there name and point out in the sky the constellations that can be seen all night long on a clear night in your hemisphere.

❑ **10.** Name five constellations that are visible between sunset and midnight in your hemisphere during:

a. The summer months.

b. The winter months.

❑ **11.** At what time of year is the constellation Orion best seen? Locate and idenify in the sky the three brightest stars of this constellation.

Time of year _____

❑ **12.** How are the letters of the Greek alphabet used to name stars in a constellation?

_____

_____

_____

Give five illustrations of the use of the letters of the Greek alphabet in naming the stars of a constellation.

	Proper name	Constellation name
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

❑ **13.** List the 15 first-magnitude stars and observe the ones that appear in your area throughout the year.

1. _____ **9.** _____

2. _____ **10.** _____

3. _____ **11.** _____

4. _____ **12.** _____

5. _____ **13.** _____

6. _____ **14.** _____

7. _____ **15.** _____

8. _____

❑ **14.** With the use of a diagram, show the relative positions of the earth and moon during high and low tides.

❑ **15.** Describe the peculiar individual characteristics of the planets in our solar system.

Mercury _____

_____

Venus _____

_____

Earth _____

_____

Mars _____

_____

Jupiter _____

_____

Saturn _____

_____

Uranus _____

_____

Neptune _____

_____

Pluto _____

_____

Which ones cannot be seen without the aid of a telescope?

_____

Which two planets are seen only near the hours of sunrise or sunset?

1. _____ **2.** _____

❑ **16.** Where and in what way does the Bible refer to Orion, the Pleiades, and Arcturus?

	Where	What way
Orion	_____	_____
Pleiades	_____	_____
Arcturus	_____	_____

Date completed _____ Instructor's Signature _____