Stars

1. Answer the following questions:
- **a.** What is the earth's nearest celestial neighbor? What is its distance from the earth?
- **b.** What governs the tides?
- **c.** What causes an eclipse?
- **d.** 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 and be able to name the planets in order from the sun.

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.

6. What is a constellation? Name and point out six. Name two constellations visible throughout the year.

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? Why does it carry both names? Observe the morning and evening star in the sky.

10. Explain zenith and 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.

Skill Level 2

Original Honor 1928

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:

a.	Planet	**d.**	Meteor	**g.**	Constellation
b.	Satellite	**e.**	Meteorite	**h.**	Fixed star
c.	Comet	**f.**	Nebula	**i.**	Sunspot

Identify personally or from pictures an example of each.

4. Define the following terms:

a.	Celestial sphere	**d.**	Horizon	**g.**	Transit
b.	Celestial pole	**e.**	Right ascension	**h.**	Conjunction
c.	Celestial equator	**f.**	Declination	**i.**	Ecliptic

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

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.

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.

13. Locate the 15 first-magnitude stars as they appear throughout the year.

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. Which ones cannot be seen without the aid of a telescope? Which two planets are seen only near the hours of sunrise or sunset?

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

Skill Level 3

Nature
General Conference
2001 Edition

Original Honor 1949