

Chp 1 Reading Guide - **Read** the chapter and then answer the questions

Looking Back in Time

1. Light has a finite speed. What is it? Make a graphic to show the differences in time that it takes light to reach us from the three examples mentioned.

Keeping Track of Space and Time

2. Explain how a light year is a unit of length even though the term “year” appears in it.

Observing the Universe

3. How are images in Figure 1-3 related?

Observing the Constellations

4. What is Figure 1-7 trying to explain?
5. The Andromeda Galaxy is one of the nearest galaxies. So why is it farther away than the stars we see?
6. Can you pick out Cassiopeia and the Summer Triangle on pg 7?
7. What is the name of the brightest star and what constellation is it in?
8. If you follow the arc of the handle of the big dipper [you can also use your star chart – follow the handle from the bowl to the tip of the handle] you will get to, or “arc” to what star?

Distances in the Universe

9. After reading this section, what can you say about our ability to measure distances in space?
10. Read through pages 12, 13, and 14. What impression does this “closer look” leave with you?

The Value of Astronomy

11. Why is the study of astronomy important to you?

Origins

12. Which of Nasa’s Origins’ three program goals is the most important or interesting to you? Explain.

The Scientific Method

13. Sometimes we go through school and get the impression that science is very cut-and-dried, that everything is very well established. After reading this section would you agree with this impression?

Science and Pseudoscience

14. How are astronomy and astrology different? Why is it so important to scientists (especially astronomers) to make the distinction that astrology is not science?

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