

Unit 1 Section 2 Study Guide

Directions: Answer the following questions.

Reviewing Objectives Part 1:

1. Describe the position and motion of our solar system in our galaxy and the overall scale, structure, and age of the universe. Pages: 791, 792
2. Differentiate between cosmological and Doppler red shift. Pages: 778, 793-796

Reviewing Major Concepts Part 2: *Textbook Chapter 30 sections 3-4*

1. The sun orbits the center of the Milky Way galaxy every 225 million years. How many revolutions has the sun made since the formation of Earth 4.6 billion years ago?
2. Describe how red shifts were used by cosmologists to determine that the universe is expanding.
3. Summarize the big bang theory.
4. List evidence that supports the big bang theory.
5. Compare the amount of visible matter in the universe with the total amount of matter and energy.

CRITICAL THINKING

6. **Inferring Relationships** How did the distribution of matter in the early universe affect how we are able to detect cosmic background radiation today?
7. **Evaluating Theories** Use the big bang theory to explain why scientists do not expect to find galaxies that have large blue shifts.