

Name _____

The Sun: A Cosmic Giant Among Celestial Objects

Open-Ended Response Answer Key

1. The Sun's size is truly remarkable when compared to the planets in our solar system. Its diameter is about 109 times wider than Earth's, making it the dominant force that holds our solar system together through its gravitational pull.
2. The Milky Way galaxy, with a diameter of about 100,000 light-years, dwarfs our Sun and encompasses hundreds of billions of stars. It serves as a reminder of the vastness of the universe and our Sun's relatively modest place within it.
3. Beyond the Milky Way, the universe is home to countless galaxies, each containing billions of stars and celestial objects of various sizes and compositions. The diversity of these galaxies and their contents showcases the incredible scale and complexity of the cosmos.
4. The concept of scale in the universe challenges our understanding of size and space. It highlights the immense range of sizes, from the smallest particles to the largest stars and galaxies, and reminds us of the vastness and wonder of the universe we inhabit.

