Name _____

Through the Cosmic Lens: Exploring Telescopes

Short Answer Key

1. Refracting telescopes use lenses to bend and focus light, while reflecting telescopes use mirrors to reflect and focus light. Reflectors are known for their ability to gather more light, making them suitable for deep-sky observations.
2. The focal length of a telescope determines its magnification, with longer focal lengths resulting in higher magnification and vice versa.
3. One type of telescope that combines lenses and mirrors is the catadioptric telescope. It offers improved optical performance, compact designs, and versatility.
4. Telescopes are vital tools in astronomy because they enable the exploration of the cosmos, the discovery of celestial objects, the study of space phenomena, scientific research, and educational outreach.
5. An example of a significant astronomical discovery made possible by telescopes is the identification of exoplanets, planets orbiting stars outside our solar system, which has expanded our understanding of the diversity of planetary systems.