

Name _____

Exploring the Universe: What is Cosmology?

Short Answer Key

1. The Big Bang theory suggests that the universe began with a massive explosion about 13.8 billion years ago.
2. Cosmologists study the universe using powerful telescopes and sophisticated instruments to observe galaxies, stars, and planets.
3. Dark matter is matter that is invisible and can only be detected through its gravitational effects. It is detected by observing the way it affects the motion of visible matter, such as galaxies.
4. The cosmic microwave background radiation is important in cosmology because it provides evidence for the Big Bang theory, as it is a remnant of the early, hot universe.
5. The expanding universe is significant in cosmology because it supports the idea of the Big Bang and provides insight into the universe's history and future.

