

Name _____

Unveiling the Universe's Birth: The Big Bang Theory Explained

Short Answer Key

1. The Cosmic Microwave Background Radiation (CMBR) is a faint glow of radiation that fills the universe and is a remnant of the early, hot universe. Its discovery provides strong evidence for the Big Bang theory as it reflects the conditions of the universe at that time.
2. Redshift is the phenomenon observed when galaxies appear to be moving away from us, and it supports the idea of an expanding universe. It occurs because the light from distant galaxies is stretched, causing it to shift toward the red end of the spectrum.
3. The abundance of light elements, such as hydrogen and helium, in the universe matches the predictions of the Big Bang theory. This alignment reinforces the validity of the theory, as it explains the creation of these elements in the early moments of the universe.
4. Edwin Hubble was an astronomer who discovered the redshift of galaxies, providing strong evidence for the expanding universe. His work and observations revolutionized our understanding of the cosmos.
5. According to the Big Bang theory, the universe began as an infinitely small and hot point (singularity) around 13.8 billion years ago. It has been expanding ever since, with galaxies, stars, and cosmic structures forming as matter clumped together under the force of gravity.

