

Name _____

Exploring the Universe: What is Cosmology?

Open-Ended Response Answer Key

1. Answers will vary but should include a telescope or instrument concept and a reason for its development, such as an advanced space telescope to capture clearer images of distant galaxies.
2. Possible answers could include the use of satellite-based technology developed for space exploration, like GPS systems, or advancements in materials science.
3. Answers will vary, but students might mention theories about the universe's eventual fate, such as the possibility of a "Big Freeze" or "Big Crunch."
4. Cosmology helps us understand the universe's fundamental principles and origins, which can lead to new discoveries and technologies in the future. It also satisfies our curiosity about the cosmos and our place in it.

