

Name _____

How Do Astronomers Study the History of Galaxies?

Open-Ended Response Questions

1. Reflect on the concept of cosmic time travel and how it enables astronomers to study galaxies as they existed in the distant past. Why is this perspective essential for understanding galactic history?
2. Consider the challenges and limitations astronomers face when studying galaxies through deep-space observations. What obstacles must they overcome to unlock the secrets of the cosmos?
3. Discuss the role of galaxy surveys in mapping the universe and the insights they provide into the distribution and structure of galaxies. How do these surveys contribute to our understanding of the cosmos?
4. Imagine you are an astrophysicist using simulations to study the evolution of a galaxy over billions of years. What specific aspects of galaxy evolution would you simulate, and what scientific questions would you aim to answer through your research?

