

Name _____

What Is A Supermassive Black Hole?

Open-Ended Response Questions

1. Imagine you are an astronomer studying the supermassive black hole at the center of our Milky Way galaxy. Describe the methods and tools you would use to measure its mass and study its impact on our galaxy.
2. Discuss the potential consequences of a supermassive black hole becoming "active" and emitting powerful jets of particles and radiation. How might this activity affect the surrounding galaxy?
3. Consider the interplay between supermassive black holes and the evolution of galaxies. Explain how the presence of a supermassive black hole can influence the formation and distribution of stars in a galaxy.
4. If you were to compare a supermassive black hole to a character from a story, who or what would it be, and why? Use analogies to explain the role and significance of supermassive black holes in the universe.

