

“Gravity gone mad!”

Black Holes: The Ultimate Abyss

Name _____

Date _____ Pd. _____

1. If black holes cannot be seen, how do astronomers search for them?
2. According to Sir Isaac Newton, how is the mass of something related to its gravity?
3. Why will our sun not become a black hole?
4. How does mass affect the “space-time fabric” of the universe?
5. What is the event horizon of a black hole?
6. What is “spaghettification”? What happens to the passage of time for you relative to outside observers as you pass by the event horizon of a black hole?
7. Why will scientists never be able to explain what happens inside a black hole? (*↑Use answers to 5 and 6.*)
8. What use might “tamed” black holes have and what name are such useful ones called?
9. What is the very significant difference between your fate when pulled into a supermassive black hole (like at the center of our galaxy) instead of a stellar black hole?