

Video Questions for the Video <i>Monster of the Milky Way</i> Earth Science/Geology	Mr. Traeger
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Name: _____

Period: _____

Date: _____

1. What type of galaxy do we live in?
2. What might lie at the center of our Milky Way Galaxy?
3. Why can we not see the center of our galaxy with visible light? What types of light can be used to see to the center of the galaxy?
4. How many light years across is the Milky Way Galaxy?
5. How far, in light years, is our solar system from the center of the Milky Way Galaxy?
6. Explain Einstein's idea of space and time. I will do a demo to explain it.
7. What is the event horizon of a black hole?
8. Geology: What is the Schwarzschild radius? What is the formula that is used to calculate it? What does the formula mean?
9. What is the singularity of a black hole?
10. What happens to time when you enter black hole if you are traveling at the speed of light?
11. Geology: Imagine that you travel through space near the speed of light and your twin stays on earth. Which one of you will be younger when you come back together again?

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12. What do rapidly revolving stars at the center of the galaxy tell us about what is there?

13. How massive is the object at the center of our galaxy?

14. How are black holes formed? Look at the life cycles of stars worksheet or section 28.3.

15. What would happen to your body if you entered a black hole feet first?

16. What was the Big Bang? Is our Universe continuing to expand?

17. What happens when galaxies come together?

18. How does matter fall in to a black hole? Where do the radiation jets come from?

19. When will the black hole at the center of the Milky Way eat again? What does this say about the activity of the black hole?

20. What will happen when the Andromeda Galaxy and the Milky Way Galaxy in 3 billion years from now?

21. What are your thoughts about worm holes, time travel, and parallel universes? Do they exist?