

Name _____

What is the Speed of Light, and Why is it Important?

Open-Ended Response Questions

1. Imagine a world where the speed of light is much slower. How might this affect our everyday lives, technology, and scientific discoveries?
2. Discuss the relationship between the speed of light and the concept of time dilation in Einstein's theory of relativity. Provide a real-world example to illustrate this concept.
3. If you were an astronaut traveling at nearly the speed of light to a distant star, how would this journey affect your perception of time compared to people on Earth? What challenges might you encounter on such a journey?
4. Reflect on the importance of the speed of light in space exploration. How does our understanding of light's speed help us learn about the universe, and what mysteries can it help us unravel in the future?

