

Name _____

Quantum Computing Challenges: The Bumpy Road to Quantum Supremacy

Open-Ended Response Questions

1. Discuss the importance of error correction in quantum computing and its role in achieving reliable results. Provide examples of how quantum error correction is being addressed in research.
2. Imagine a scenario where quantum computing becomes affordable and accessible. How might this change the landscape of computation and technology in the future? What industries or fields do you think would benefit the most?
3. If you were a quantum programmer, which specific challenges related to quantum computing would you be interested in addressing, and why? How could you contribute to overcoming these challenges?
4. Considering the limitations of quantum computing, what types of problems or tasks do you think classical computers will continue to handle effectively, even in a world where quantum computers are widespread?

