

Name \_\_\_\_\_

## The Wonders and Limitations of Artificial Intelligence and Machine Learning

### Open-Ended Response Answer Key

1. AI and ML are unable to possess consciousness because they operate based on algorithms and data, lacking self-awareness, emotions, desires, and intentions that are fundamental aspects of human consciousness.
2. Answers may vary but could include implementing strict guidelines for ethical AI development, auditing AI systems for bias regularly, and involving diverse teams in AI development to reduce bias.
3. An example of a job at risk of displacement due to AI and ML automation is customer service representatives. Society can address this issue by offering training programs to help affected individuals transition to new roles and industries.
4. Advancements in AI and ML can benefit healthcare by improving diagnosis accuracy, personalized treatment plans, and drug discovery. In education, they can provide personalized learning experiences and assist teachers in optimizing curriculum for individual student needs while overcoming limitations by ensuring that AI systems do not replace the human element in these fields.

