

Name _____

The Race for the Future: Leading Companies in Autonomous Vehicle Development

Open-Ended Response Answer Key

1. Companies like Waymo and Tesla are investing heavily in autonomous driving technology because they see it as the future of transportation. They believe it can lead to safer roads, reduced traffic congestion, and increased convenience. Additionally, it opens up opportunities for new business models like ride-sharing and delivery services.
2. Companies face challenges in developing fully autonomous vehicles, including perfecting the technology to handle complex and unpredictable scenarios, ensuring safety, addressing legal and regulatory hurdles, and gaining public trust. They can overcome these challenges through rigorous testing, collaboration with regulators, and continuous improvement of their technology.
3. The future of transportation is likely to be shaped by autonomous vehicles with potential benefits such as safer roads, reduced traffic accidents, lower emissions, and increased accessibility for people with disabilities. However, there may be drawbacks such as job displacement in the transportation industry and concerns about data privacy and security.
4. Government regulations should play a crucial role in ensuring the safety and fairness of autonomous vehicles. They should establish clear safety standards and testing requirements, address liability issues, and ensure that autonomous technology benefits everyone in society, including underserved communities. Public input and transparency in the regulatory process are also essential.

