

Name \_\_\_\_\_

## Mechanics of an Inclined Plane

### Open-Ended Response Questions

1. Think about a scenario where you need to transport a heavy box from the ground to the bed of a truck. Explain how you can use an inclined plane (such as a loading ramp) to make this task easier, including the angle and length of the incline.
2. Discuss the importance of wheelchair ramps in improving accessibility for individuals with mobility challenges. How do these inclined planes enhance their daily lives?
3. Compare and contrast the mechanical advantage of a shallow staircase with that of a steep staircase. Provide examples of situations where each type of staircase might be preferred.
4. Why do you think inclined planes have been used by humans for centuries? How have they influenced the design of buildings, vehicles, and recreational activities?

