

Name _____



Forces on Wheels

Have you ever wondered why cars can move so fast? It's all about the forces at play. Cars have powerful engines that produce force to push them forward. But there are also other forces, like friction and air resistance, that can slow them down.

Example: When a car accelerates, the engine produces a force that moves it forward. As the car drives, the tires experience friction with the road, which is another force. If the driver wants to slow down, they apply the brakes to counteract the forward force.

Real-world application: Riding a bike involves similar forces. When you pedal, you apply force to the pedals, making the bike move. But when you want to stop, you use the brakes to counteract the forward force and come to a halt.

Questions

1. How do cars move so fast, and what forces are involved?
2. Describe the force produced by a car's engine when it accelerates.
3. What is the role of friction in car movement?
4. How can a driver slow down a car, and why is it necessary?
5. Explain how forces work when riding a bike.