

Name _____

Exploring Forces

Now, let's explore forces and how they relate to Newton's laws of motion. A force is a push or pull that can change the motion of an object. We can measure forces in units called Newtons (N). Forces are all around us, and they play a big role in how objects move.



Example: Imagine you're playing tug-of-war with your friends. When you pull the rope harder, you apply a greater force, and the rope moves toward your side. The force you use determines how fast the rope moves.

Real-world application: When you jump off a swing at the playground, you use your muscles to apply force to the ground. This force pushes you up into the air, following Newton's Third Law.

Questions

1. What is a force?
2. How do forces change the motion of an object?
3. What unit do we use to measure forces?
4. Explain the relationship between force and the speed of motion with an example.
5. How does jumping off a swing at the playground relate to forces and Newton's laws?