

First Law of Motion

Newton's first law of motion states that an object at rest tends to stay at rest and an object in motion tends to stay in motion with the same speed and in the same direction unless acted upon by an unbalanced force. This is also known as inertia. Read each description. Then answer the questions.

1 Jonathon wants to put ketchup on his hamburger. He turns the ketchup bottle at an angle toward his plate and smacks the bottom of the bottle until the ketchup comes

What is the unbalanced force? _____

How does inertia affect the ketchup in the bottle? _____

2 The Jacksons are driving to the lake when a car in front of theirs slams on its brakes. Mrs. Jackson slams on her brakes, too. Everyone is wearing their seatbelts which stop them from being thrown forward in the car.

What is the unbalanced force? _____

How does inertia affect the each person in the Jackson car? _____

3 Terry is riding her skateboard. Suddenly one of the wheels hits a small rock and the skateboard stops. Terry stumbles forward off the skateboard, and catches her balance at the last moment before she falls to the ground.

What is the unbalanced force? _____

How does inertia affect Terry and her skateboard? _____

4 Jack is carrying a cup of water. He doesn't see a wrinkle in the floor rug and he trips. Jack manages not to fall or drop the cup, but the water sloshes over the side of the cup and onto the floor.

What is the unbalanced force? _____

What keeps moving? _____