

Name _____

Motion and Safety

Answer Key

1. Understanding Newton's laws of motion can help keep us safe by allowing us to make informed decisions about our actions and the forces involved in various situations.
2. Wearing a seatbelt in a car is related to Newton's First Law because it helps you stay safely in your seat during sudden stops, preventing you from continuing to move forward due to inertia.
3. Braking on a bike downhill relates to Newton's Second Law because the force of braking acts against your forward motion, following the law's principle that acceleration depends on the net force applied.
4. It is important to wear a helmet while biking or skating because it protects your head in case of a fall, reducing the impact force and following Newton's Third Law.
5. Another safety measure influenced by Newton's laws is using airbags in cars. Airbags are designed to inflate quickly during a collision, providing a cushioning force to reduce the impact on passengers, following Newton's Third Law.