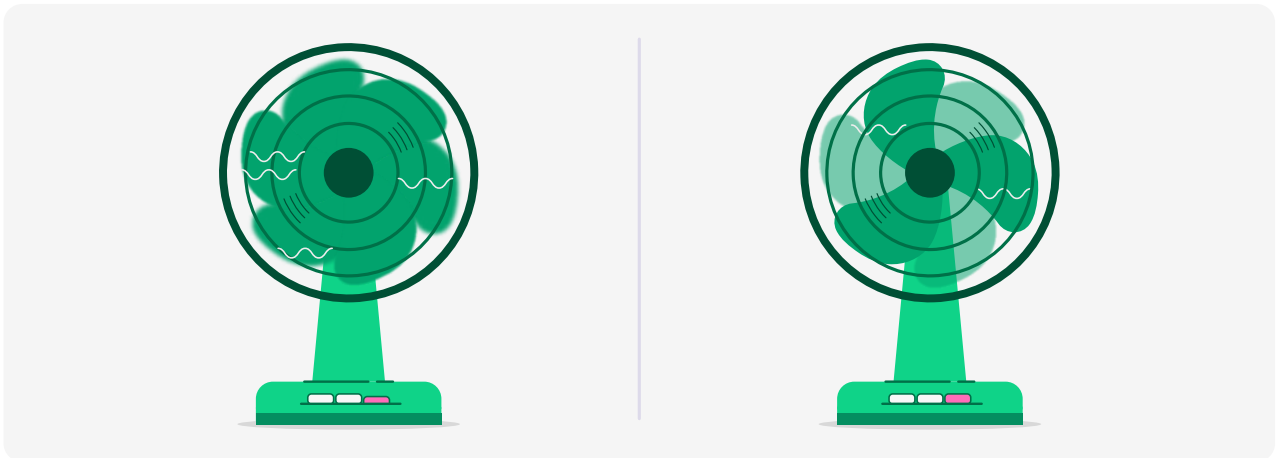


FIRST LAW OF MOTION EXAMPLES

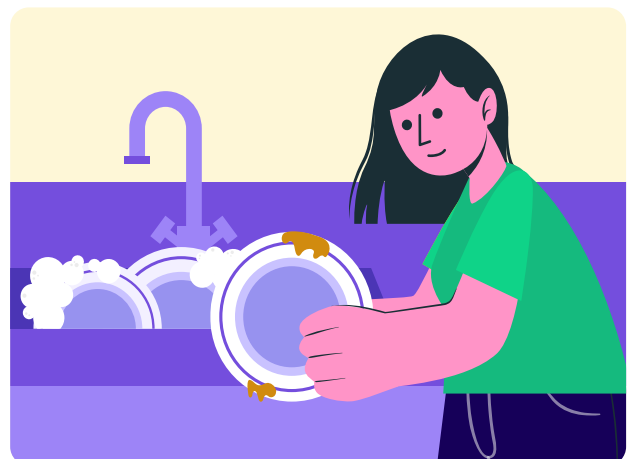
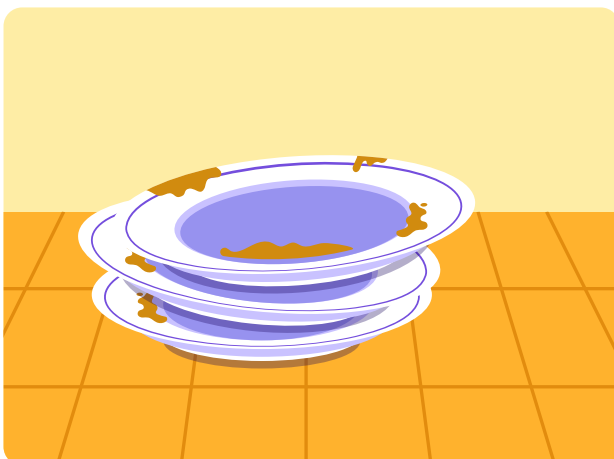
Example 1: When a car stops suddenly, the passengers still feel forward motion. This is due to the inertia of motion whereby the car begins to stop while the body inside is still in a state of motion.



Example 2: When you turn off a table fan, the blades continue to move for some time even without electricity because of the First Law of Motion.

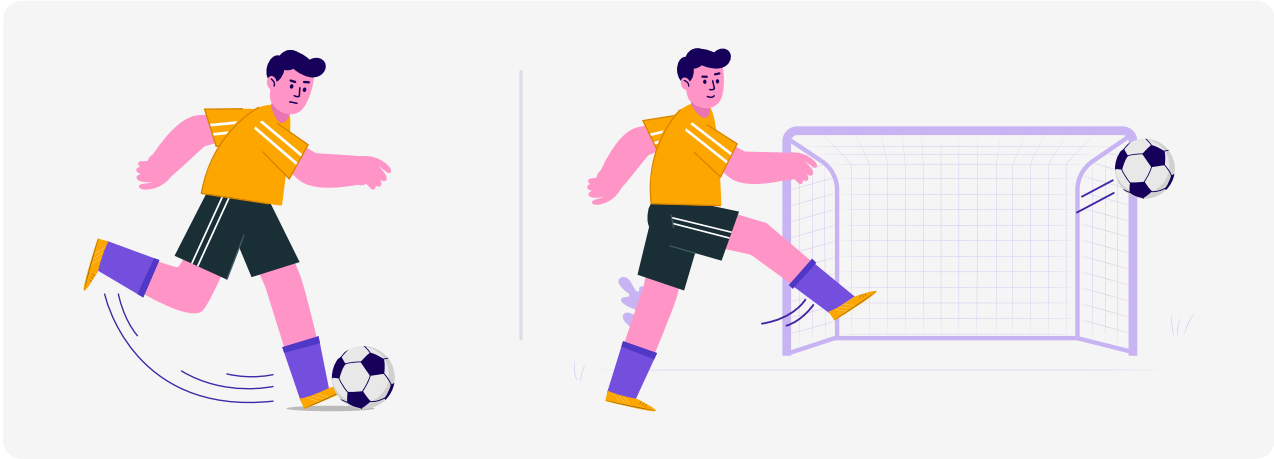


Example 3: A dirty dish lying on the table will not move or get cleaned unless you apply some force and put it in the dishwasher.

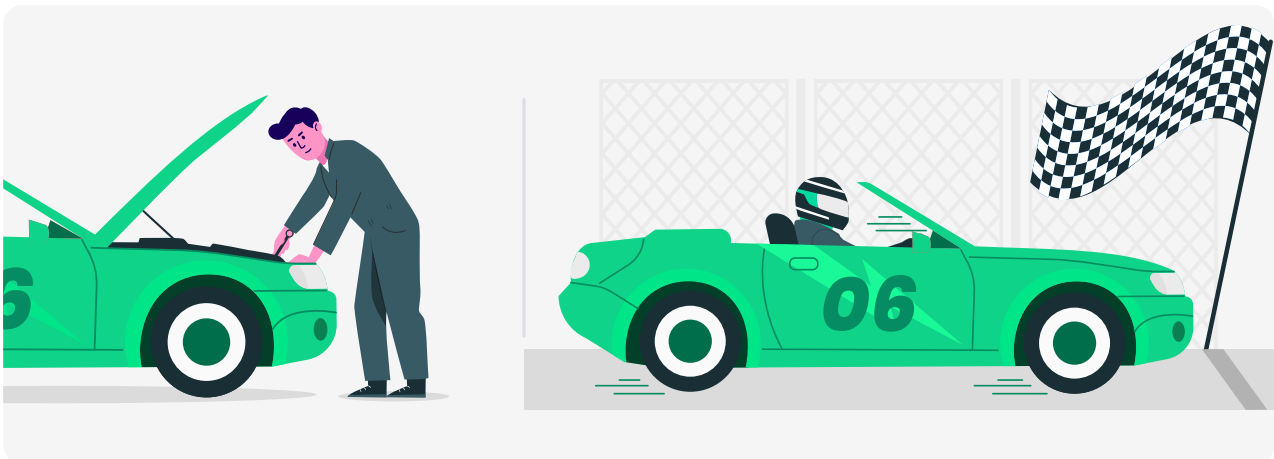


SECOND LAW OF MOTION EXAMPLES

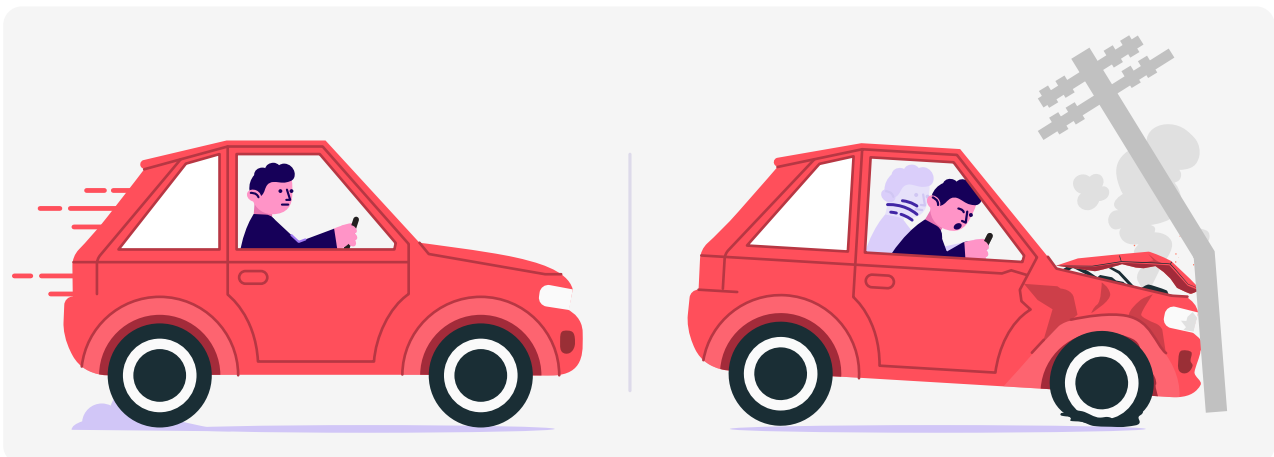
Example 1: When we kick a soccer ball in a specific direction, we are exerting force on the ball. The harder we kick, the more force we apply, and the farther the ball goes.



Example 2: In racing cars, engineers try to keep vehicle mass as low as possible. This means with lower mass more acceleration can be provided. If the acceleration is higher, the chances of winning the race are also increased.



Example 3: During a car accident, the force between the car and the obstacle is known as impact force. This force depends on the masses of colliding vehicles and the speed at which they are moving. This means that if a bigger and heavier vehicle moving with greater speed is involved in a collision, the intensity of the impact force will be greater.

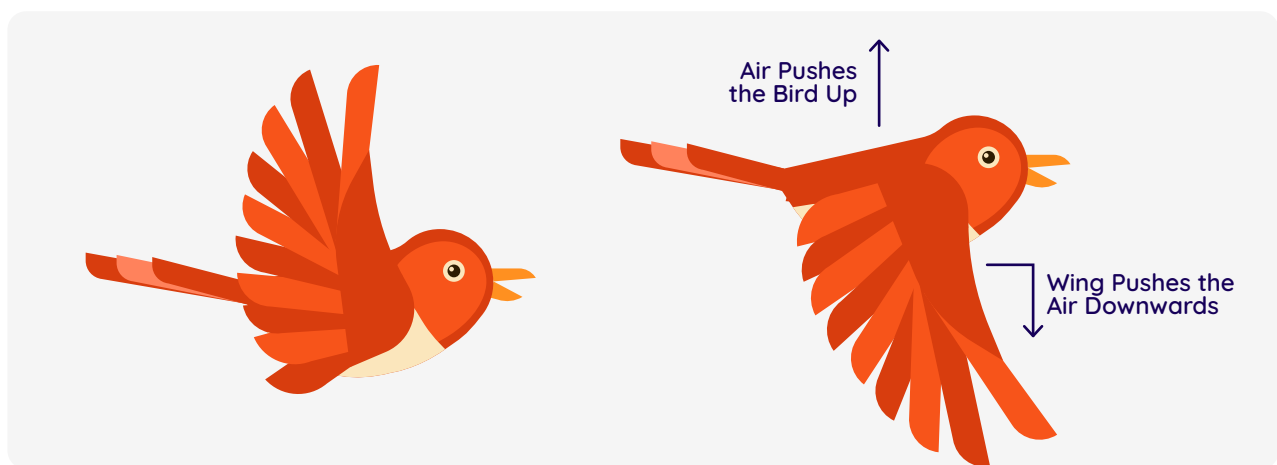


THIRD LAW OF MOTION EXAMPLES

Example 1: When you sit in a chair, you are constantly pushing on the chair with a downward force. The chair is also pushing you back with an upward force; otherwise, the chair would collapse and you would fall.



Example 2: Birds also fly using the Third Law of Motion. The wings of the bird push the air, creating an upward force which helps them move forward. Airplanes and helicopters also use this technique.



Example 3: While swimming or moving in a rowboat, when you push the water backward, there is an equal and opposite force generated which causes forward motion.

