

Quick Vocabulary

Lesson 1

contact force a push or pull on an object by another object that is touching it

force a push or pull on an object

friction force that resists the motion of two surfaces that are touching

gravity attractive force that exists between all objects that have mass

mass amount of matter in an object

noncontact force a force one object can apply to another object without touching it

significant important; momentous

static at rest or having no motion

weight gravitational force exerted on an object

Lesson 2

balanced forces combined forces form a net force of zero

inertia tendency of an object to resist a change in its motion

net force combination of all the forces acting on an object

Newton's first law of motion the motion of an object does not change if the net force on an object is zero

reference direction given direction from a starting point to describe an object's position

unbalanced forces combined forces that form a net force that is not zero

Quick Vocabulary

Lesson 3

centripetal force a force in circular motion that acts perpendicular to the direction of motion toward the center of the circle

circular motion any motion in which an object is moving along a curved path

Newton's second law of motion acceleration is equal to the net force exerted on the object divided by the object's mass

Lesson 4

force pair forces that two objects apply to each other

law of conservation of momentum total momentum of a group of objects remains the same unless outside forces act on the objects

momentum measure of how hard it is to stop a moving object

Newton's third law of motion for every action there is an equal and opposite reaction