

# Forces and Motion

Force refers to any action or influence that causes an object to move. An object experiences a force when it is pushed or pulled by another object. An object can also experience a force because of the influence of a field, such as gravity or magnetism. Match each term in the word box to its definition.

newton  
acceleration

kinetic  
gravity

momentum  
weight

centripetal  
friction

mass  
speed

inertia  
velocity

- 1 \_\_\_\_\_ A force that resists the movement of one surface against another.
- 2 \_\_\_\_\_ The amount of matter in an object.
- 3 \_\_\_\_\_ The type of force that keeps objects moving in a circle or arc.
- 4 \_\_\_\_\_ The force of attraction that exists between two objects.
- 5 \_\_\_\_\_ The distance covered within a certain unit of time.
- 6 \_\_\_\_\_ The rate at which an object changes its velocity.
- 7 \_\_\_\_\_ The rate at which an object is traveling in a certain direction.
- 8 \_\_\_\_\_ The energy of motion or the energy an object has as a result of its motion.
- 9 \_\_\_\_\_ The tendency of an object to remain at rest if at rest or to continue moving in a straight line if in motion.
- 10 \_\_\_\_\_ A unit of measurement for force.
- 11 \_\_\_\_\_ The amount of force exerted on an object due to gravity.
- 12 \_\_\_\_\_ The product of an object's mass and its velocity.