

GLOSSARY

A

action-reaction pair a pair of simultaneous equal but opposite forces resulting from the interaction of two objects (139)

C

coefficient of friction the ratio of the force of friction to the normal force acting between two objects (144)

contact force force that arises from the physical contact of two objects (125)

E

equilibrium the state in which there is no change in a body's motion (134)

F

field force force that can exist between objects, even in the absence of physical contact between the objects (125)

force the cause of an acceleration or the change in an object's velocity (124)

force diagram a diagram of the objects involved in a situation and the forces exerted on the objects (126)

I

inertia the tendency of an object to maintain its state of motion (130)

K

kinetic friction the resistive force that opposes the relative motion of two contacting surfaces that are moving past one another (143)

N

net external force the total force resulting from a combination of external forces on an object; sometimes called the resultant force (131)

normal force a force exerted by one object on another in a direction perpendicular to the surface of contact (141)

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● S

static friction the resistive force that opposes the relative motion of two contacting surfaces that are at rest with respect to one another (142)

● W

weight the magnitude of the force of gravity acting on an object (141)