

SECTION



Study Guide

Newton's First Law

Chapter

2

Directions: Use the terms from the word bank to fill in the blanks in front of the correct phrases below.

balanced
force
friction

net force
Newton's first
rolling

static
sliding
unbalanced

- _____ 1. the force that brings nearly everything to a stop, also useful for mountain climbers and baseball players
- _____ 2. the type of friction that acts on a rolling wheel, easier to overcome than static friction
- _____ 3. the combination of all forces acting on an object
- _____ 4. the law that describes the motion of objects that experience balanced forces
- _____ 5. the forces acting on an object whose motion is not
- _____ 6. the type of friction that you have to overcome to push a stationary object
- _____ 7. the type of friction acting on surfaces sliding on each other
- _____ 8. a push or pull
- _____ 9. the forces that cause the motion of an object to change

Directions: Unscramble the words to fill in the blanks in this paragraph that explains how Galileo Galilei's ideas helped Isaac Newton to understand the nature of motion.

Galileo realized that an object could be in motion even if the (10) _____ (ecsfro) acting on it were (11) _____ (aebcdln). In real life, (12) _____ (cinotfri) is the force that (13) _____ (lswso) objects down and causes them to (14) _____ (sptso). Newton's (15) _____ (srift) law of motion described how forces cause the motion of objects to (16) _____ (aehncg): An object at rest remains at rest and an object in motion continues to move in a (17) _____ (gsahitr) line with constant (18) _____ (pedes) if the net force acting on it is (19) _____ (ozer).