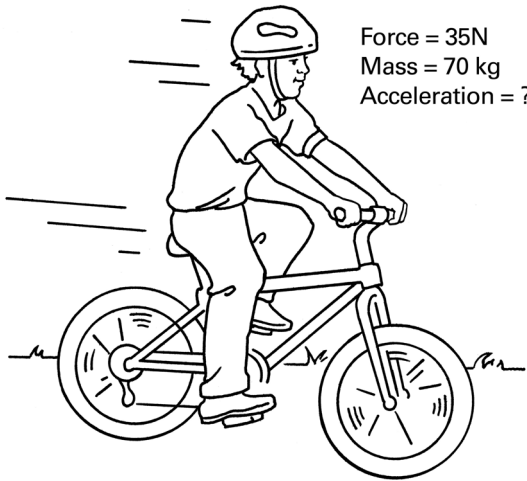


SECTION

FORCE AND MASS DETERMINE ACCELERATION.

2.2 Reinforcing Key Concepts**BIG IDEA** Forces change the motion of objects in predictable ways.**KEY CONCEPT** Force and mass determine acceleration.

- 1. Newton's second law relates force, mass, and acceleration.** A force of 35 N acts on a bike and bicyclist with a mass of 70 kg. What is the acceleration of the bike and bicyclist? Show the formula and the work you do to solve the problem.



- 2. Forces can change the direction of motion.** Not all objects move in straight lines. Centripetal force keeps an object moving in a circular motion. An example of an object that moves this way is a tether ball. What provides the centripetal force for the tether ball? Draw an arrow to it and label it *centripetal force*. What force causes the tether ball to accelerate around the pole? Draw an arrow to it and label it *accelerating force*.

