20. a. mass
    b. air resistance
    c. weight
    d. direction
    e. terminal velocity

Chapter Test C

1. A
2. D
3. A
4. B
5. B
6. C
7. C
8. C
9. D
10. C
11. B
12. C
13. D
14. B
15. C
16. A
17. centripetal force
18. momentum
19. inertia
20. freefall

Standardized Test Preparation

READING

Passage 1

1. A
2. H
3. D

Passage 2

1. C
2. I

INTERPRETING GRAPHICS

1. B
2. G

MATH

1. B
2. I
3. C
4. H

Vocabulary Activity

1. free fall
2. weightless
3. terminal velocity
4. centripetal
5. motion
6. equal opposite
7. projectile motion
8. gravity
9. inertia
10. momentum
11. air resistance

I have never met a man so ignorant that I could not learn something from him.

SciLinks Activity

1. The force of gravity pulls the airplane downward, while a lifting force equal in size to gravity pushes the airplane upward.
2. Because the air is less dense at higher elevations, the force of air resistance is less. As a result, the force slowing the ball down is less at higher elevations, and the ball thus travels farther.
3. In all of these vehicles a passenger moves at high velocity. When there is a sudden change in the velocity of the vehicle, the passenger, as predicted by Newton's first law of motion, continues to move with the previous velocity. The seat belt applies a force opposite to the passenger's motion, causing the passenger to safely slow down or change direction with the vehicle.
3. According to Newton's third law of motion, the force of the water moving out of the arm must be paired with an equal force in the opposite direction. This reaction force pushes the wheel of the sprinkler in the opposite direction to the water.

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