

Name _____

The Battle Against Air

Short Answer Key

1. Before deploying the parachute, air resistance opposes the skydiver's motion, slowing them down gradually. After deploying the parachute, the large surface area generates significant air resistance, further slowing down the descent, leading to a safe landing.
2. An example is designing the shape of racing cars to minimize air resistance. This is achieved by creating streamlined, aerodynamic designs that reduce drag and improve speed.
3. A feather falls more slowly than a stone because it has a larger surface area compared to its mass, resulting in more significant air resistance. This greater air resistance slows down the feather's descent.
4. The larger the surface area of an object, the more air resistance it experiences. Objects with larger surfaces slow down more quickly due to increased friction with air molecules.
5. I would design the car with a streamlined, aerodynamic shape, with curves that reduce drag. This would include a pointed front, smooth contours, and reduced protrusions to minimize air resistance and improve fuel efficiency.

