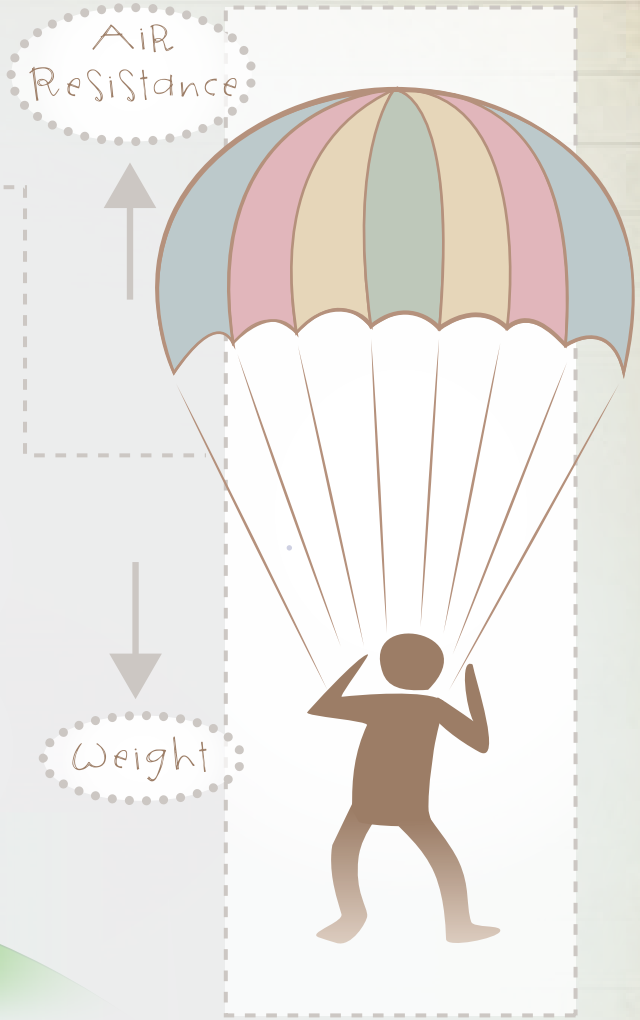
Air Resistance

All matter has substance/mass, even air molecules! Air resistance (or *drag*) happens when air molecules collide with a moving object and slow it down.

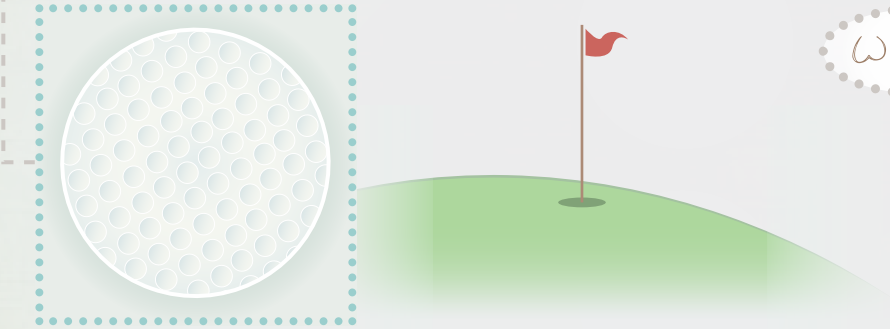
EXAMPLE: A skydiver who jumps out of a plane.



DID YOU KNOW?

When a car travels at 50 miles per hour or more, half of the gas it uses is spent on overcoming air resistance!

Dimples on a golf ball help reduce drag, allowing the ball to fly further than a ball without dimples.



WATER RESISTANCE:

Today's competitive swimwear has has changed so dratiscally that the material goes faster through the water than human skin. Controversy over the new suits has broken out, due to the fact that consistent world record times have been broken since the introduction of new water-resistant material starting around the year 2000.

THINK ABOUT IT!

If you were to drop a 2 dollar bills, one crumpled and one flat, the crumpled one would fall faster because there is less resistance acting on the paper. Air resistance works with an objects surface area. The more of an area the more air resistance!

Air Resistance (continued)

READING COMPREHENSION

1. What factors affect air resistance?

2. What directions do the forces of air resistance and weight act on a falling object?

3. If a skydiver jumps out of a plane, which force is greater - gravity or air resistance?

4. Why does a feather fall slower than a tennis ball?