Even though both pieces of paper weigh the same, they are shaped differently. The crumpled piece is more compact and is, therefore, able to push through the air better. The flat paper has more surface area and the air pushes against this and slows the paper down. Engineers who build airplanes and rockets know this scientific principle very well. They design their vehicles with a streamlined shape so that they can slice through the air instead of pushing against it.

This experiment takes only a few seconds to perform, but you may want to repeat it a few times and think about the scientific principle before reading the explanation at the bottom of the page.

1. Use two sheets of paper that are exactly alike. Crumple one piece of paper into a ball. Do not do anything to the other piece.
2. Stand on a chair and hold one piece of paper in each hand. Extend your arms as high as possible. Drop the crumpled piece and the flat piece at the same time. Which paper falls faster? You know that they both weigh the same. Can you explain the difference in speed?

This Is What Happens:

You Will Need:

- 2 Sheets of paper
- Chair

Instructions

This is What Happens:

Even though both pieces of paper weigh the same, they are shaped differently. The crumpled piece is more compact and is, therefore, able to push through the air better. The flat paper has more surface area and the air pushes against this and slows the paper down. Engineers who build airplanes and rockets know this scientific principle very well. They design their vehicles with a streamlined shape so that they can slice through the air instead of pushing against it.