

Earlier we learned about the four forces of flight, which are really important for an airplane to fly. But, there are a couple more reasons why an airplane is able to explore the sky!



The Bernoulli Principle:

The faster the air flows, the less pressure it has.

What does pressure mean? It's another word for force, just like in the four forces of flight. Imagine the air around an airplane is pushing against it all the time - that's the air pressure.



The top of the wing is curved. Air moves quickly over the top of the wing. This causes **Low Pressure**.

The bottom of the wing is straight so air moves slowly underneath it. This is an area of **High Pressure**.

Higher pressure underneath pushes the wing up and creates lift. The air above and below the wing must meet at the edge at the same time, which means the air on top has to move faster because it has a longer distance to travel.

The best way to understand and see the Bernoulli's Principle in action, aside from watching airplanes of course, is to do this fun experiment at home!



MAGICAL SODA CANS



HERE'S WHAT YOU NEED:



- Two empty soda cans (of the same size)
- One straight drinking straw
- One ruler

HERE'S WHAT YOU DO:

1. Start by putting the soda cans side by side with $\frac{3}{4}$ inch space in between.
2. Choose a flat surface like a table or a desk.
3. Then take the straw and hold it in that space in the middle, about $\frac{1}{4}$ inch from the table or desk.
4. Next, blow between the two cans and watch what happens!

CAN YOU EXPLAIN WHY THE TWO CANS MOVED CLOSER TOGETHER?

