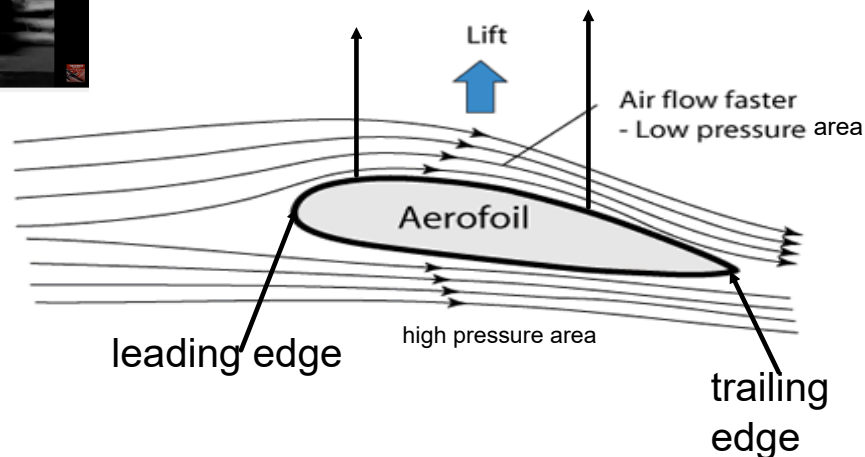


The Wing of a Plane



Definition

Airfoil - a streamlined shape with a curved top, a rounded leading edge, and a sharp trailing edge.

When the airplane moves forward the air moves backwards remember over its wing.

1) When air hits the front of the wing (Leading edge) it splits up. Some goes on top and some goes under the wing.

2) The air flowing over the curved top of the wing has further to go than the air going under the flat bottom of the wing.

3) For the two streams of air to reach the back of the wing (trailing edge) at the same time, the top stream must travel faster than the bottom. (It has further to go)

4) This fast moving air creates a low pressure area on top of the wing and a high pressure area on the bottom of the wing. (Bernoulli's Law)

5) Since objects tend to go from high pressure to low pressure, lift is created, which is how birds and planes stay in the air. (Note that for the wing to have lift, it must be moving forward through the air)

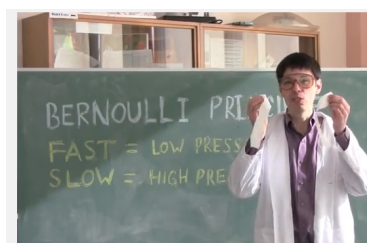
Bernoulli's Principle

"If the speed of a fluid increases, the pressure it exerts decreases"

In other words

"Fast-moving fluids exerts less pressure than slow-moving fluids"

Video for Bernoulli's Principle



[Bernoulli's Principle - Easiest Way Explained](#)



[Bernoulli's Principle Demonstration: Bernoulli's Ball](#)