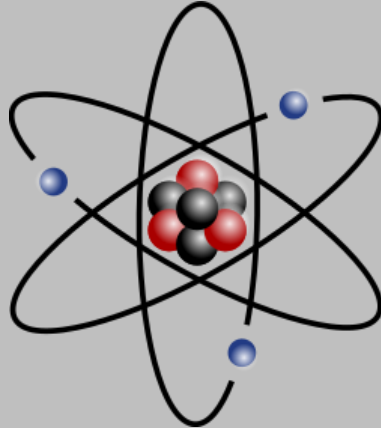




International House Tashkent
Subject: Physics
Department: ES, Course 1
Lesson 14. Bernoulli's theorem



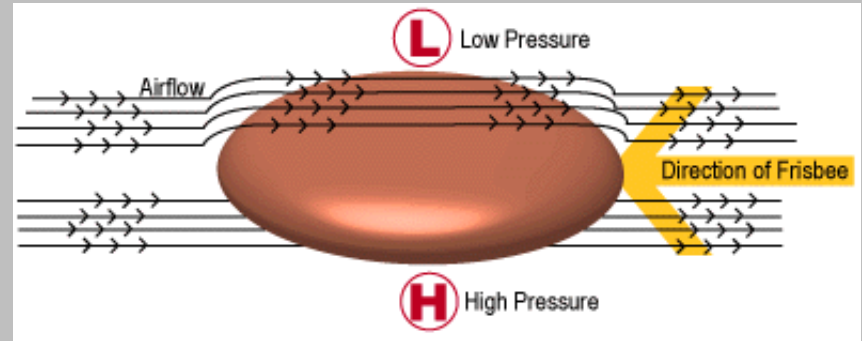


Fluid Motion

- A fluid naturally flows from an area of high pressure to an area of low pressure.
- In the 1700s, Swiss scientist Daniel Bernoulli discovers that the pressure of a moving fluid is different than the pressure of a fluid at rest.

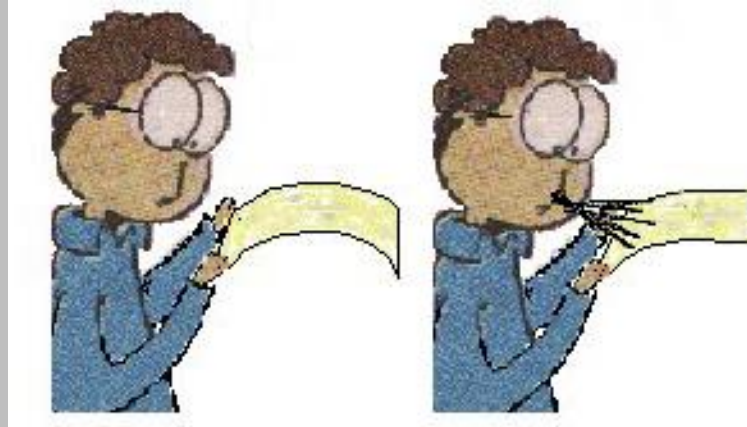
Bernoulli's Principle

- Principle that states that as the speed of a fluid increases, its pressure decreases.



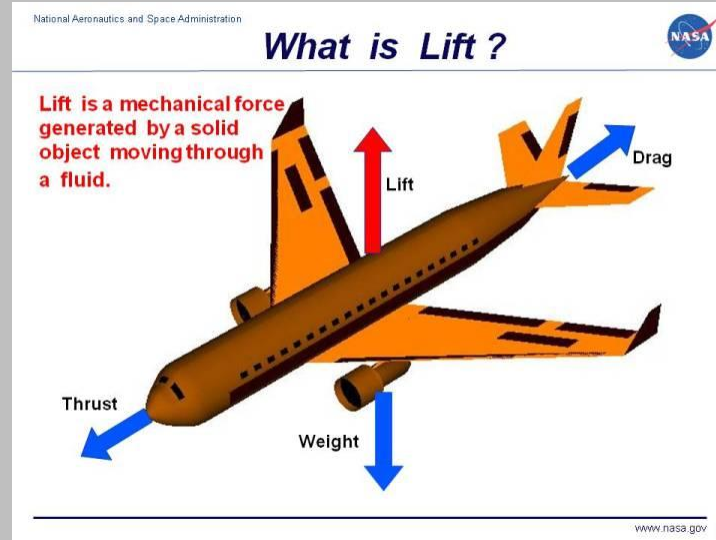
Demonstration

- Take a piece of paper and hold in front of you. Blow over the top of the paper. What happens to the sheet of paper?



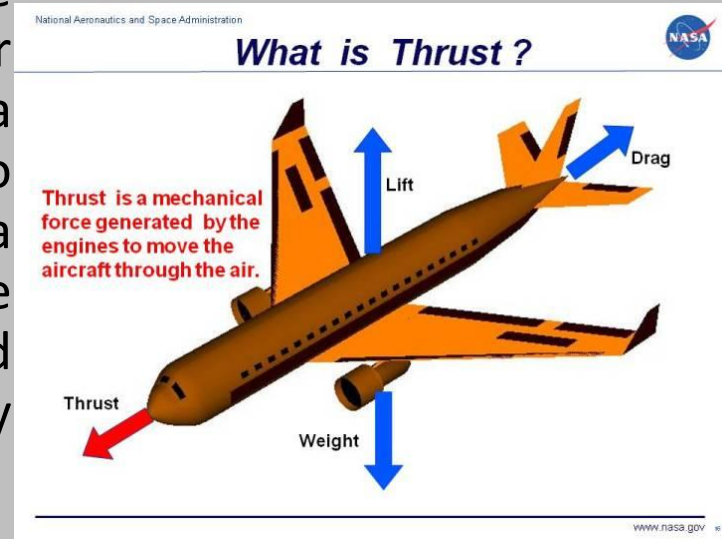
Lift

- Upward force in flight. In normal flight, lift equals weight of plane.



Thrust

- The forward force on the plane. Normal flow of air over wings will not allow a plane to have enough lift to take off. Plane must reach a certain speed and create enough air flow around wings to fly. This is done by THRUST of the engine.



Drag

- The flow of air over the wings is a form of air resistance which is a frictional force. Too much drag creates greater usage of fuel. The process of reducing drag is streamlining.

