

HOW an Airplane Flies



Flight is a continuous reaction between four forces:

Gravity acts on the airplane in flight, just as it does on people and objects on the ground. The force that overcomes gravity and allows the airplane to fly is lift.

Lift: When examining the wing of an airplane, you will see that the top part is curved and the bottom is more flat. Air that flows over the top of the wing speeds up because it has further to go than the air under the wing – creating a high pressure area. The result is that an upward reaction into the low pressure area from the high pressure area lifts the wing.

Thrust: Additionally, to obtain lift, airplane engines must thrust the airplane forward – creating the air flow over the wings, which results in the wings being lifted by the increased air flow.

Drag: The opposite force of thrust is drag. If you have ever held your hand out the window of a moving car then you have felt drag – the wind resistance holding your hand back as you move forward.

Jet loves putting his head out of the window while on a car trip. Look how his ears and tongue are pulled up because of wind resistance (drag).

