# ****Aerodynamics: How Airplanes Fly****

Aerodynamics is a term that refers to the manner in which planes fly. This essay depicts scientific elements that reveal how flying has become a usual habit in lives of human beings. Flying is an aspect of balance that incorporates forces that are imposed on an object. Thrust, lift, drag and weight are four fundamental forces that make an object to fly.

In a flight, the balance of such forces reveals the manner in which an object appears while in motion. The purpose of the lift is to attract the plane on the upper side and weight makes it to move down. Based on Newton’s first law, he cites that the motion of the object is straight and moderate until when it meet others. Applying this law to airplanes, it is clear that they maintain their state of movement without disrupting the force balance. His second law further indicates that the mass of an object that goes through acceleration is subjected to force.

This implies that in an airplane, the lift is supposed to exceed weight that happens to be the force of gravity. Evaluating Bernoulli principle, it is clear that the rate at which liquids and gases flow is linked to pressure in a negative manner (Chabay & Sherwood 6). Air is necessary because when the plane is in a horizontal motion, air flows in an opposite way. In addition, the third law by Newton reveals that each force that is imposed on an object is relatively connected with magnitude force.

Evidently, these elements that apply to flights are vital to all planes. The engine creates thrusts that make the plane to move in a forward manner. This implies that the thrust should be equivalent or greater compared to a drag to enable the aircraft to fly.

References

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Cumpsty, Nicholas A. Jet Propulsion: A Simple Guide to the Aerodynamic and Thermodynamic Design and Performance of Jet Engines. Cambridge: Cambridge University Press, 2003. Print.