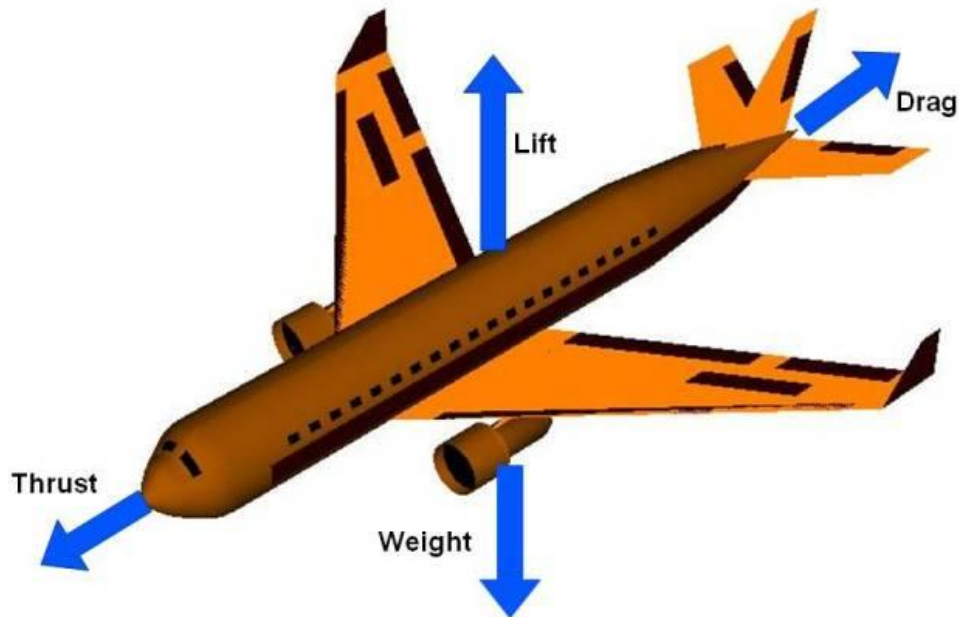


Hoop Glider Background Information

National Aeronautics and Space Administration



Four Forces on an Airplane



www.nasa.gov

THRUST = a force that moves an aircraft in the direction of the motion. It is created with a propeller, jet engine, or rocket. Air is pulled in and then pushed out in an opposite direction. One example is a household fan.

WEIGHT = the force caused by gravity.

LIFT = the force that holds an airplane in the air. The wings create most of the lift used by airplanes. The air pressure is higher on the bottom side of a wing, so it is pushed upward.

DRAG = the force that acts opposite to the direction of motion. It tends to slow an object. Drag is caused by friction and differences in air pressure. An example is putting your hand out of a moving car window and feeling it pull back.

Lift works opposite of weight. Thrust works opposite of drag.

These forces apply to any flying object (helicopter, Frisbee, hoop glider)!