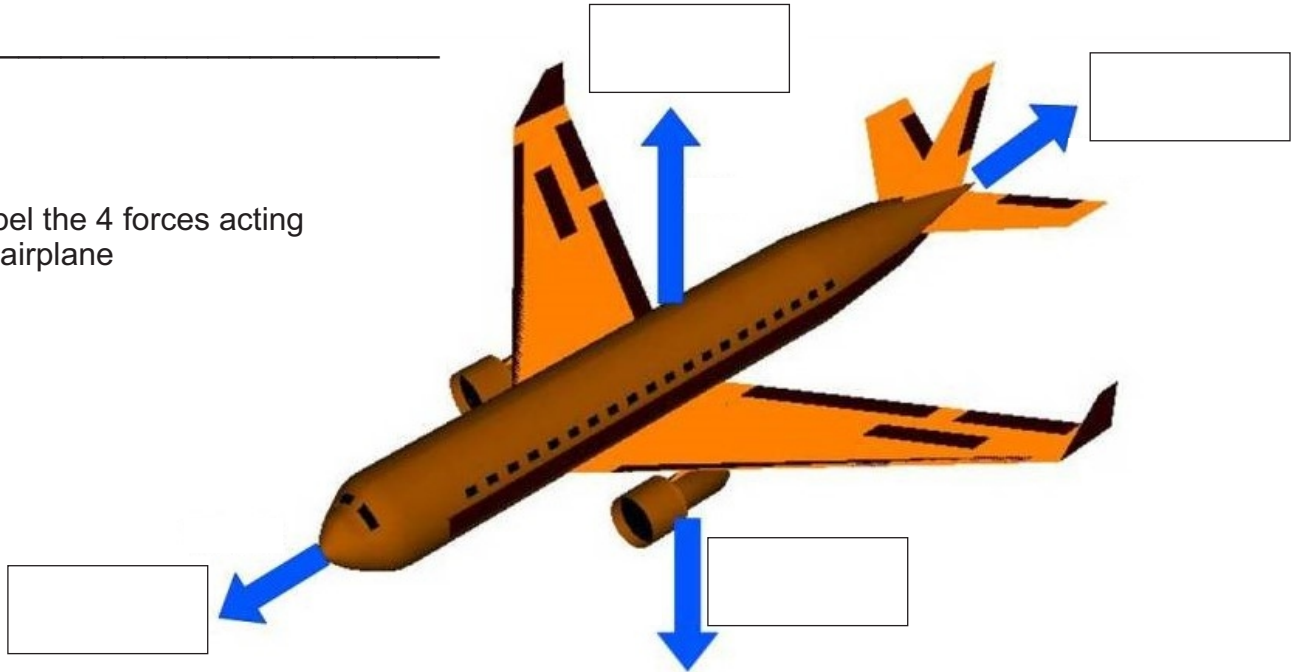


Forces on an Airplane

Name: _____

1. Label the 4 forces acting on an airplane



2. An airplane sits motionless on a runway because of inertia. If that plane starts to move down the runway, it means that there must be a force acting on it. Of the four main forces that act on aircraft, which one is most likely to cause the forward motion down the runway?

Lift Weight Thrust Drag

3. Which of the four forces causes the airplane to become airborne?

Lift Weight Thrust Drag

4. Once the airplane is airborne, which force is trying to hold the plane back?

Lift Weight Thrust Drag

5. If the airplane was to lose engine power, what force would bring it back to the ground?

Lift Weight Thrust Drag

6. As the airplane travels at a constant velocity, it burns fuel, which decreases its weight. In response to this decrease in weight (or gravitational pull), which of the four forces is also likely to decrease?

Lift Weight Thrust Drag

7. In the space provided, draw an arrow that indicates thrust force of the airplane pictured above:

8. In the space provided, draw an arrow that indicates lift force of the airplane pictured above:

9. In the space provided, draw an arrow that indicates weight force of the airplane pictured above:

10. In the space provided, draw an arrow that indicates drag force of the airplane pictured above: