

8 The First Force of Flight Lift

Four forces act on an aeroplane while it is in flight;

Lift and thrust create flight

Drag and weight prevent flight.

Therefore, for flight to occur, lift and thrust must be greater forces than drag and weight.

Online resource 5

Look at the shape of a plane wing. Watch the film clip to explain how this shape helps to create lift.

<https://www.youtube.com/watch?v=YDeQXPNpLeY>

Online resource 6.

The Levitating Ping-Pong Ball

I'm going to blow a ping-pong ball into the air, using a hairdryer.

Write the following statements onto the whiteboard:

- I think the ball will be pushed across the classroom.
- I think the ball will fall to the ground.
- I think the ball will shoot towards the ceiling and then fall to the ground.
- I think the ball will hover in the air.

<https://www.youtube.com/watch?v=V2deFgyj3XQ>

Watch and see what happens.