

# Paper Airplane Glider

Learning the principles that make flight possible is fun and easy with this simple paper airplane. Use the included template to create your flying craft from this piece of paper or any other!



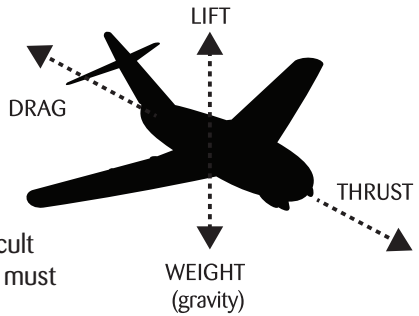
## Procedure

1. Follow the directions on the template to fold your paper airplane.
2. Hold your plane with your thumb and pointer finger.
3. Throw with the nose pointed slightly up and release with full arm extension (follow through). Don't throw too hard or your plane will make an immediate nosedive or stall.
4. Practice throwing your plane until you get the hang of it.



## Observations

To achieve flight, objects have to reach a balance between four forces. GRAVITY pulls the object toward the ground, so an artificial force of LIFT must be created to overcome gravity. DRAG, or air resistance, makes it difficult for the plane to move forward. Planes must generate THRUST to overcome drag.



By throwing the plane, your arm muscles achieve enough thrust to overcome drag. The shape of the plane and its wings help it achieve lift and overcome gravity, at least for a short period of time.



## Extensions

1. Make modifications to this design to try to make the plane fly farther.
2. Create your own paper airplane design.
3. Challenge your friends to see who can build a paper airplane that flies the farthest.