

COPY ALL

Here are some facts you should know about lift:

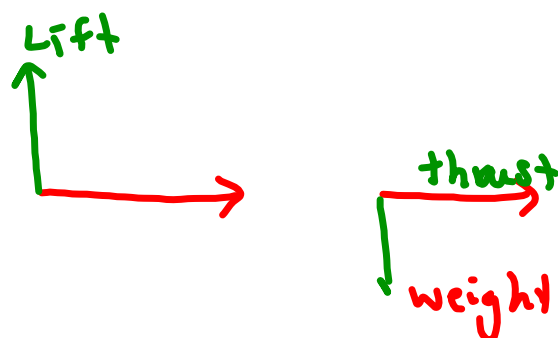
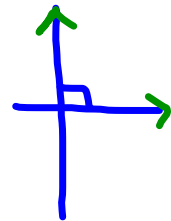
a) Lift depends on shape (lift is greater with an airfoil-shaped wing than with a flat wing).

b) Lift depends on angle of attack (up to a point, lift increases as the angle of attack increases; beyond that point, lift is lost)

c) Lift depends on speed (Lift increases as speed increases)

d) Lift depends on direction (lift acts perpendicular to the direction of the object's movement)

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To be flying, an object has to stay in the air and not fall down. Some people might tell you that the best paper airplane, the one that goes the furthest of all, is a tight wad of paper. But that isn't flying. The wad is falling from the moment it leaves your hand. To be flying, it has to keep going steadily, and not slow down or dive into the ground.

Only 4 kinds of animals have ever learned how to fly:

insects



birds



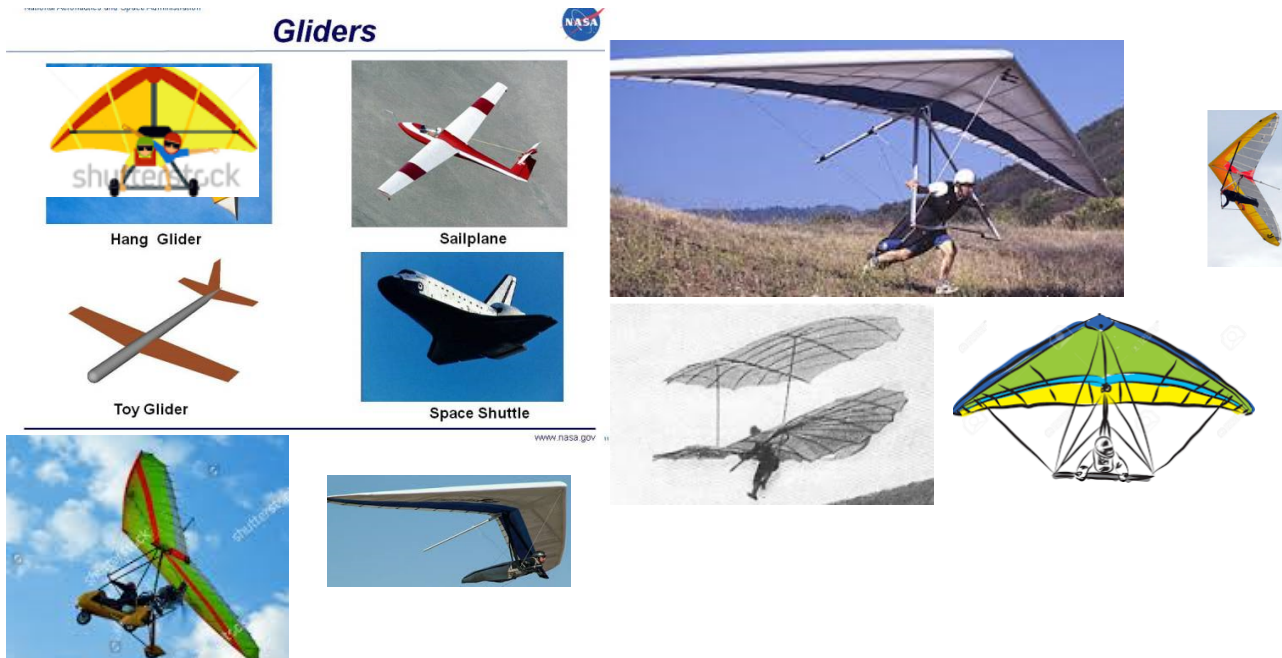
bats



pterosaurs



You will need to bring your construction paper and scissors



A glider is a special kind of aircraft that has no engine thus no thrust. There are many different types of gliders. Paper airplanes are the simplest gliders to build and fly.

Hang-gliders are piloted aircraft having cloth wings. Pilots often jump from high cliffs to gain initial speed

Sailplanes are piloted gliders that have standard aircraft parts, construction, and have levers to control wings and flaps, but no engine. These planes are often towed behind engine plane and releases in mid-air.

The Space Shuttle returns to earth as a glider; the rocket engines are used only during liftoff