Build Gliders & Explore Flight

- Written by Digital Support

The templates supplied with this activity allows you to build and experiment with all of these basic wing/tail/canard configurations. Eight different plastic foam “X-gliders” can be built using the template, but the total number of variations is only limited by the imagination of the “designer”

Canard (aeronautics)

In aeronautics, a canard (French for "duck") is a fixed-wing aircraft configuration in which a small horizontal surface, also named the canard or foreplane, is positioned forward of the main wing in contrast to the conventional position at the tail. Because of this it is sometimes described as "tail-first".

The term "canard" arose in France. The appearance of the Santos-Dumont 14-bis of 1906 reminded the French public of a flying duck (Fr. canard)., and later the Fabre Hydravion of 1910 was named "Le Canard". Thereafter all aeroplanes with a foreplane were known as canards.

More free content listed on Wikipedia, the free encyclopedia.

Link **en.wikipedia.org/wiki/Canard_(aeronautics)**

About the Exhibition

How Things Fly Web site, a companion to the physical exhibition at the Smithsonian National Air and Space Museum. The goal is to explain the basic principles that allow aircraft and spacecraft to fly.

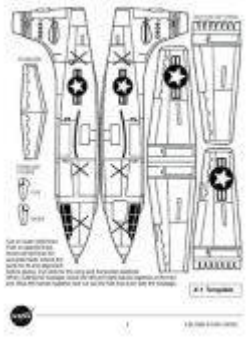
Distance Challenge	How Wings Work
Controlled Flight	Paper Airplane Gallery
Forces of Flight	Hands-on Experiments

Description: The Canard has a long fuselage, delta wing and canard. A canard is a small wing placed on an airplane in front of the main wing.

Characteristics: The Canard is excellent for long-distance flights and flights requiring accuracy. Its forward wings give you extra control over its flying characteristics. The Canard is not nearly as fast as the Dart, but it is fairly stable.

An airplane wing affects moving air much like a rock in a stream affects moving water. The space around each wing is already +filled with air—there's no empty space for air to move into. So as the oncoming air reaches the wing and moves over or under, it speeds up to squeeze between the wing and the surrounding air. This push is a force called lift.

Image Gallery



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Paper Airplane Craft - Roundel Insignia

- Written by Digital Support

A roundel in heraldry is a disc; the term is also commonly used to refer to a type of national insignia used on military aircraft, generally circular in shape and usually comprising concentric rings of different colours.

In January 1947 red bars were added within the existing white bars on both USN and USAAF aircraft and in September of the same year, the United States Army Air Forces (USAAF) became an independent service and was renamed the United States Air Force (USAF). More free content listed on Wikipedia, the free encyclopedia.

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Link **en.wikipedia.org/wiki/Military_aircraft_insignia**

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The Delta - Paper Plane Glider

- Written by Digital Support

The Delta has a wide delta wing form, winglets (turned-up wings), and a solid blunt nose. The Delta is a slow moving glider.

Its forward weight design and large tapered winglets make it a stable flier. The Delta is not designed for accuracy, but if built right and launched from a high place it can be made to generate long sweeping turns.

Image Gallery

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Create Your Own Paper Airplane

Print Template, Folding Instructions, and Flight Info
Body Style: The Delta
Design: Zebra
Insignia: Roundel