Peregrine Falcon
Wild Wings

What you need!

- Paper
- Scissors
- Tape
- A drinking straw

Peregrine Falcons are the world's fastest birds. They are able to fly fast because of the shape and size of their wings. Try building a few different types of paper airplanes to see how wing size and shape affect their performance.

What you do:

1. Make a few different types of paper airplanes (see examples)
2. Test-fly each a few times and notice how they fly. Do they go fast, or stay up a long time?

Ask yourself

- Which planes fly faster?
- Which fly for the longest time?
- How do you think the wing size and shape affects how the planes fly?
- Try to make a slow plane fly faster by changing the wings. Then try to make a fast plane fly longer.
- Draw out the wing shape of an eagle, a blue jay, a seagull.
- Since the Peregrine Falcon is the fastest bird in the world, what shape is its wing?

What did you find out?

You no doubt noticed that some of these paper airplanes fly faster while others fly longer than others. Much of their performance has to do with wing design. The planes with lower wing loading fly for longer periods of time, but they tend to be slower. Wing loading is not only true for paper airplanes but also for birds like the peregrine.

Paper Airplanes

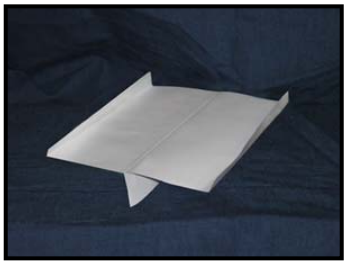
Here are some sample paper planes from some excellent websites.

The Hoopster:

(http://www.exploratorium.edu/science_explorer/hoopster.html)

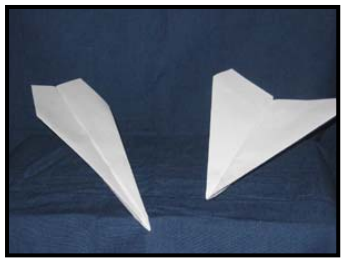
The world record holder:

(http://www.workman.com//fliersclub/dl_wr_inst.html)



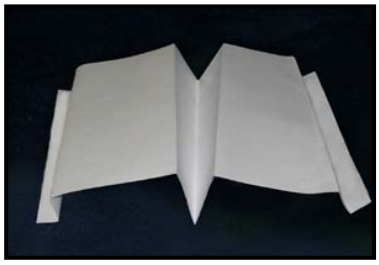
My school plane:

(http://www.freehomepages.com/jline/unknown.html)



The shuttle:

http://www.freehomepages.com/jline/shuttle.html



Great link to other planes: http://www.freehomepages.com/jline/planelist.html

Specific Learner Expectations (SLE)

Grade 6 Topic A: Air and Aerodynamics.

SLE 4: Recognize that for living things to fly they must have significant lift to overcome the forces of gravity.

SLE 5: Identify adaptations that enable birds to fly.

SLE 6: Describe the means of propulsion for flying animals and aircraft.

Grade 6 Topic B: Flight.

SLE 3: Conduct tests of glider designs; and modify a glider design so that a glider will go further, stay up longer, or fly in a desired way: e.g., fly in a loop, turn to the right.