STEM@Home: Session 2

Paper airplanes may seem simple, but there can be some pretty advanced engineering involved.

Challenge Yourself
There are lots of different ways that you can launch a paper airplane. How does changing the way you launch a plane change its behavior?

Some variables to try:
- Light throw versus hard throw.
- Nose pointed up on release versus nose parallel to the ground.
- Holding the plane closer to the nose versus holding it closer to the tail.
- Pointing the plane toward the wind (fan or air conditioner) versus pointing it away from the wind (fan or air conditioner). Note that this mimics planes having a head- or tailwind.

Think of some more variables to test!

Fun Flight Facts*
- Aerospace engineers, aircraft manufacturers, and scientists all use paper aircraft to test aircraft behavior—just like you did.
- Ken Blackburn holds the Guinness world record for longest (duration) paper aircraft flight—27.6 seconds!
- Tony Fletch holds the world record for longest distance flown by a paper aircraft—193 feet (longer than the distance of the Wright brothers' first flight)!
- The largest paper airplane ever built had a wingspan of 40 feet. It flew 114 feet before crashing and smashing its nose.

Learn More
- Ken Blackburn explains how paper airplanes fly (*paperplane.org/paero*) and has patterns for making additional planes (*paperplane.org/patterns*)
- There are lots of other great plane patterns available at *augq07.dsl.pipex.com/paamain*

* Facts are adapted from "Paper Aircraft Association 'Amazing Facts,'" http://www.augq07.dsl.pipex.com/paamain/facts.html.