

COLO-ROAD  
**TRIPS**  
-K TO 5TH GRADE-  
EDUCATIONAL ITINERARIES

EXPLORE OUTSIDE THE CLASSROOM. LEARN INSIDE OUR STATE.

---

**Come Fly with Me**  
**Wings Over Rockies Air & Space Museum**

At the Wings Over the Rockies Air and Space Museum, you will learn not only how airplanes fly but why some go faster than others. Experiment with your own airplane designs by making paper airplanes. So much can be learned about aerodynamics from a sheet of paper and some simple folding. Explore paper airplane designs that range from simple to complex.

**Word Alert:**

- **Symmetrical**—one side is the same as the other
- **Launch**—set in motion
- **Distance**—how far something goes
- **Aerodynamics**—the way air moves around things
- **Thrust**—forward movement of the plane
- **Drag**—when air resists the forward motion
- **Lift**—air below the wing is pushing harder than the air above the wing
- **Gravity**—force of the pull to the ground

**Activity:** Now make your own paper airplane. Throw the plane softly and hard and record the results below. Next, change the design of the plane making it asymmetrical, throw and record the results. Finally, make the plane symmetrical again, throw and record the results.

	How Aerodynamic	Distance
Hard launch		
Soft launch		
Asymmetrical (change one side)		
Symmetrical again (exact changes made to both sides)		

**Questions to Ask:**

- 1) Does the design of the plane make a difference?
- 2) Is it important to make it symmetrical?
- 3) Does the flight change when you change one side of the plane (e.g. fold one of the wings with an extra fold)?
- 4) What happens when you throw the plane hard? Soft? Upwards? Downwards?

**Interested in Making More Paper Airplanes? Here are some additional resources.**

Wings over Rockies has some online videos which demonstrate how to make more complex and challenging planes.

- [Nakamura Paper Airplane](#)
- [Ring Wing Glider](#)
- [Boomerang Paper Airplane](#)