

Soaring Oklahoma: Aerospace & Defense

You Have Friends in High Places

TEACHERS: Help your students practice being engineers by testing their own paper airplanes!

Break students into groups of four. This will allow them to create and test four different types of paper airplanes that have been pre-designed for them. What you will need:

1. *Heads Up Activity – Sample Airplane Designs* instruction sheet from TeachEngineering.org. To download this activity sheet, visit: goo.gl/u8u3Dg
2. Four (4) sheets of plain white computer paper.

Ask students to assign each member of their group an airplane to design. Follow the instructions on the *Heads Up Activity – Sample Airplane Designs* instruction sheet to create the airplane they've been assigned. Once everyone in the group has successfully created their assigned paper airplane, the group will work to test each airplane design. Ask students to mark a starting point on the floor (you can use tape or use an object to mark the start line). Use an extended tape measure to indicate a straight line from the starting point. Ask students to practice flying their planes from the starting point to see how far they can get it to go. After a few practice rounds, ask students to complete three test flights. For each airplane designed, measure the distance that each plane travels for each of the test flights. Ask students to find the average distance traveled for each paper airplane in the group.

	Test Flight 1 (inches)	Test Flight 2 (inches)	Test Flight 3 (inches)	Average Distance (inches)
Plane # 1				
Plane # 2				
Plane # 3				
Plane # 4				

Discussion Questions:

1. Which paper airplane traveled the farthest on average? Using aerospace vocabulary, try to explain why you think this paper airplane was able to travel the farthest.
2. Look at the paper airplane that traveled the least average distance. Using aerospace vocabulary, try to explain why you think this paper airplane struggled to travel as far as the other paper airplanes.

Resources:

https://www.teachengineering.org/lessons/view/cub_airplanes_lesson06