

Name: _____ Date: _____

Soaring Paper Planes

Review the basic principles of flight with students. Then, try this experiment to test how the shape of a paper airplane's wings and other modifications affect how it flies. Guide younger students to complete the sheet.

Ask a Question: How does the shape of a paper airplane's wings or other modifications affect how it flies?

Materials: copy paper (two sheets per student) • papers of different weights and colors • computer with Internet access • projector • paper clips • decorative tape • rubber bands • markers • scissors • tape measure • stool or chair • pencil and paper

Procedure:

1. Use a projector to show instructions for how to make the first airplane at foldnfly.com/0.html #The-Basic. Have students make a plane with one sheet of paper, helping those who need assistance.
2. Form groups of 3-4 students.
3. Take the paper planes and a chair or stool, tape measure, and masking tape into an open space like a hallway or gymnasium. Spread out to avoid crashes.
4. Have each group member stand on the chair one at a time and throw his/her plane three times. Group members or older volunteers should use the tape measure to measure how far each plane traveled. Record your measurements or use masking tape, marked with students' initials.
5. Then, distribute various papers and other materials, and have students make an airplane with a different shape or other modifications, such as strategically placed paper clips, tape, etc. Test out these planes, as with the first, and see if they fly farther, higher, or in a different way!

Results:

Make a simple chart displaying the distances students' planes traveled.

Conclusions:

1. Which airplane flew farther? Why do you think so?
2. What factors besides the shape of the airplanes' wings might have affected their flight?