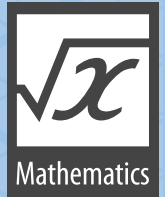


CAN YOU Go the Distance?



Paper airplanes can be a lot of fun to make, but let's see how far you can make them fly! Start off with a simple paper airplane and record its distance. What modifications could you make to make it fly further? Try it out with this activity.

WHAT YOU NEED:

- A piece of printer paper
- A paper clip, optional
- A piece of construction paper, optional
- A pen, pencil or marker
- A tape measure or ruler

HOW TO:

- Make a paper airplane of your choice. Decorate it if you would like to. If you need help finding a design, there are many available online or check out one of the books below at the library.
- Once you have your airplane made, find an open space to fly it in. This project works great outdoors but can be done inside as well. Take a couple of practice flights before you start measuring.
- When you are ready, throw your paper airplane and let it land on the ground. Use the tape measure or ruler to record the distance of your first flight on the graph on this page. Try to fly it a second time and record that distance in the second spot.
- Can you make any modifications to your plane to make it fly further? Try adding a paper clip to the airplane to add some weight. What else can you do to your plane to make it go the distance? Record these distances for the airplane with modifications. You can use the blank charts on page 21 to get started.

	Airplane 1		Airplane with Modifications	
	Feet	Inches	Feet	Inches
Flight 1	18	6	22	4
Flight 2	22	10	30	8
Flight 3				
Flight 4				



Fun Fact



The record distance for a paper airplane to be thrown is 226 feet, 10 inches.

WHAT'S HAPPENING?



This project helps us understand the four forces of flight: lift, weight, thrust and drag. As the paper airplane flies through the air, lift holds it up. You gave the paper airplane a forward thrust with your arm. Drag from the air made the paper airplane slow down. The paper's weight, along with gravity, brings the paper airplane back to the ground.



Related Books:

- *Amazing Paper Airplanes: The Craft and Science of Flight* by Kyong Hwa Lee
- *My First Guide to Paper Airplanes* by Christopher L. Harbo
- *The Flying Machine Book: Build and Launch 35 Rockets, Gliders, Helicopters, Boomerangs and More* by Bobby Mercer