



Everyday Engineering

Let's Go Fly a Kite!

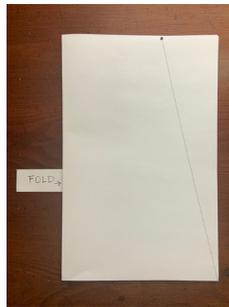
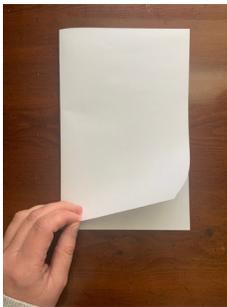
What you need:

- Scissors, tape, pencil, ruler
- Sail – Lightweight paper or fabric. The pictured example is 8.5" x 11" printer paper, but material a little bigger or smaller is okay
- Supports – plastic straws, small wooden skewers, lightweight sticks from outside
- String – sturdy, but lightweight, string or yarn, curling ribbon
- Tail – tissue paper, plastic shopping bags, wax paper, streamers

A note about materials: Making a kite offers lots of opportunity to explore different materials and how they act in the wind and air. The materials listed above are suggestions and can provide inspiration to get creative with what you have around the house.

What you do:

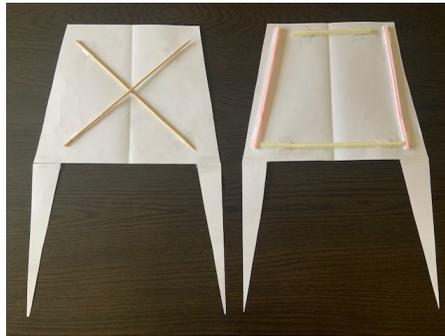
1. Make the sail – the sail is the main body of the kite that catches the wind.



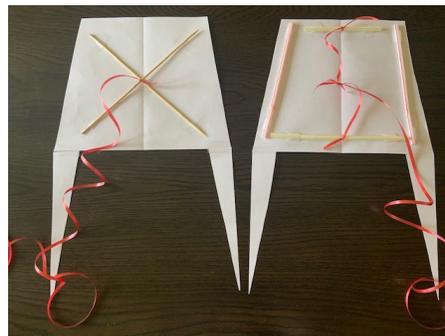
- Fold a piece of paper in half.
- Keeping paper folded, make a dot at the top of your paper, about 2 inches in from the opening (not the fold). Draw a line from this dot to the bottom corner.
- Cut along this line. Hold on to the 2 triangles you just cut!
- Unfold your paper. Hold your paper so the bottom is wider than the top. Find the 2 corners on the bottom of your kite. Line a triangle up at each corner, short side against the bottom of your kite, and tape in place.
- Make your sail stand out in the sky! Decorate it with markers, crayons, or colored pencils.

What you do:

2. Give your sail some support. Most kites need supports to help the sail keep its shape. For this sail design, you can either attach supports diagonally through the middle, in an X shape, or along the sides.



3. Attach the string – you don't want your kite to completely fly away! How you attach the string will depend on how you attached the supports. If your supports are in an X shape, you can simply tie the line to the middle of the X. If your supports are along the sides of your kite, you can make what's called a bridle. Tie a length of string from the middle of the top support to the middle of the bottom support. Then, tie your line to the middle of this string.



4. Design and test out a tail! Tails help provide weight and stability to kites. You can experiment with the length of your tail, where you place it on your kite, or the number of tails. Does one tail design help your kite fly more evenly than another?

