



Kite Aerodynamics

THE FORCES THAT ACT ON AN AIRPLANE—WEIGHT, LIFT, DRAG, AND THRUST—ARE THE VERY SAME FORCES THAT ACT ON A KITE. MAKE A KITE AND SEE FOR YOURSELF!

- 1** To make the frame, form the two sticks into a lowercase T. Hold the sticks together with a dab of glue, and wrap string around the spot where the two sticks meet.
- 2** Glue the end of the spool of string to the bottom of the frame, then wrap the string tightly around the end of the stick. Pull the string to the next point of the frame, and do the same thing again. Continue until you have created a diamond-shaped outline of your kite. Cut the string off of the spool.
- 3** To make the sail, cut off the handles and the sides of the plastic bag to create a flat sheet. On the sheet, trace a one-inch margin around the frame. Cut along the line.

YOUR FIELD KIT CHECKLIST

- ✓ **TWO RECYCLED PLASTIC SHOPPING BAGS**
- ✓ **2 THIN, LIGHTWEIGHT STICKS ABOUT THE SAME SIZE AS THE PLASTIC BAGS, ONE 4 TO 6 INCHES SHORTER THAN THE OTHER**
- ✓ **A SPOOL OF STRING**
- ✓ **RIBBON**



4 Cut a one-inch straight cut at each corner of the plastic. Fold the one-inch margin of plastic around each section of the frame. Tape along the entire edge of each section.

5 Cut a piece of string 4 to 6 inches longer than the longest stick. Tie the string tightly to both ends of the stick, outside the kite sail. Do the same to the other stick. Tape or glue all the knots firmly in place.

6 Tie the spool of string to the point where the vertical and horizontal strings meet.

7 Use a second plastic bag and cut a strip that is up to 3 feet long. Tape it to the bottom point of your kite. Cut three or more 6-inch pieces of ribbon and tie them to the kite tail.

Try!
Find a safe, open area outside to fly your kite. Can you get it airborne? What might you need to adjust to make your kite fly better?