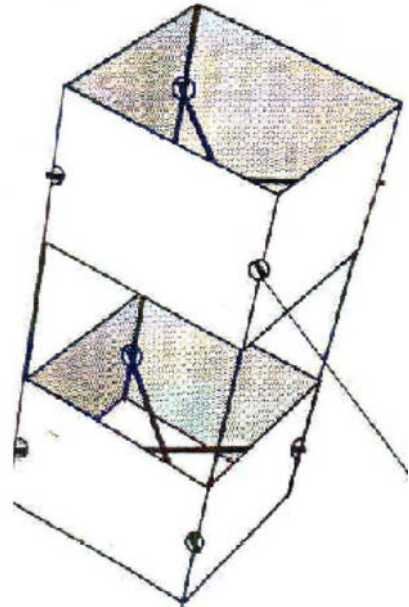


# Box Kite

This style of kite is recommended for 10-year olds to adults. The best use is in a wind range of light to moderate speeds, between five and 12 mph.

## Materials & Tools

- Large plastic kitchen garbage bag (13 gal. size: 2' x 2' 5 3/8")
- 3/16" x 36" hardwood dowels
- 3/16" x 20 1/2" hardwood dowels
- Pieces clear vinyl tubing, 1/4" ID x 1 1/2" long
- Garbage bags ties or wire twist-ties
- 8" of strong string
- Heavy plastic packing tape 2" wide
- 3 ft. metal straightedge or yardstick
- Sharp knife
- 3/16" punch or drill
- Felt-tip permanent markers
- 20-30 lb. of flying line



## Instructions

1. Lay the plastic bag out flat and smooth on a table you can cut on. Without folding the plastic, fold a 24" piece of tape over the open end of the bag to seal it from edge to edge.
2. Find the center of the bag in each direction by folding it carefully in half each way and creasing it along the fold.
3. Using the straightedge and knife, cut the bag lengthwise along the center crease so you have two double-thickness pieces 12" high by 29 1/8" wide.
4. Cutting through both layers, trim 1/4" off the closed long edge of each piece.
5. Smooth out one of the pieces and find the center again by folding it in half top to bottom, creasing the fold as before. Repeat for the other piece.
6. Place a 25¢ piece over the center of the plastic (where the creases cross). Cut carefully around the coin through both thicknesses of plastic. Center the coin over the middle of each side edge of the piece and cut half-circles there too. Now the flattened piece should look like *Figure 1*. Repeat with the other piece. These are the *sails* of your kite.
7. Punch or drill a 3/16" hole, 3/8" from one end of each piece of vinyl tubing. *See Figure 2*.

8. Make a mark 6" from each end of each 36" dowel. Insert the end of a dowel through the punched hole in a vinyl tube and slide the tube down to the mark. Repeat for each end of end of each 36" dowel. Twist the tubes so they both point the same way.
9. Cut pieces of tape 3" long and 8 pieces 2" long.
10. It helps a lot in this step if someone can help you by holding the sail flat and smooth. Lay one end of the 36" dowels over the vertical creases on the *inside* of one sail. Attach the stick by placing one end of a 3" piece of tape, sticky side up, under the edge of the sail, and folding it over the sail and the dowel so the stick can't slide up or down. Line up the stick in the crease and tape it to the other edge of the sail with a 2" piece of tape. *See Figure 3.* Attach the other sail to the other end of the stick in the same way. Repeat for the other three sticks.
11. Twist the vinyl tubes so they point in. These will be sockets for the sticks that hold the kite open, called *spreaders*. If you want to decorate your kite with felt-tip markers, now's the time to do it. Make decorations big and bold so they're not lost in the sky.
12. Tie the ends of the 8" piece of string together with a loop knot and connect it around the top vinyl tube. *See Figure 4.*
13. Inside one sail, insert one end of one of the short dowels into a vinyl tube socket and the other end into the socket on the other end of the sail. Likewise, place another short dowel between the other two sockets in the same sail. **CAREFUL!** The last end will be very tight; you'll have to bend the sticks and it's easy to break one. Now install the other two spreaders carefully.
14. After the spreader ends are all seated, place a bag tie around the crossing of each set of spreaders and tighten it.
15. Check and straighten all connections so nothing is twisted and the kite is square.
16. Attach your flying line to the string loop, stand with your back to the wind, have a friend walk the kite out 50-100 feet and let 'err go!

**Please remember these tips:**

Fly safely!

Wear gloves to avoid string burns.

Don't fly near trees, power lines, buildings, traffic or airports.

Don't fly when it's wet or stormy.

# Figures 1, 2, 3 & 4

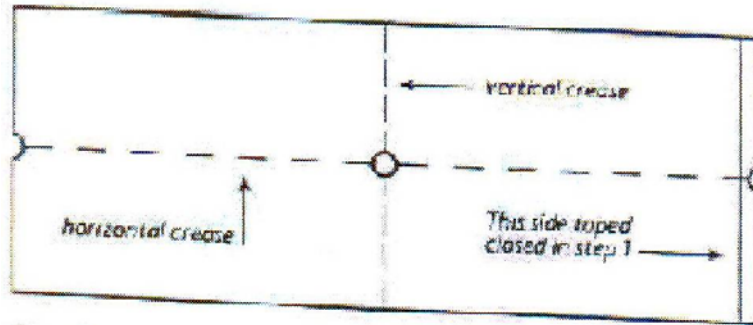


Figure 1

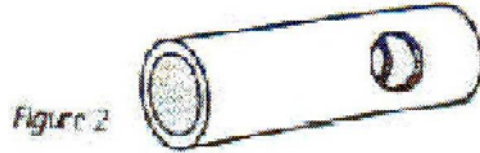


Figure 2

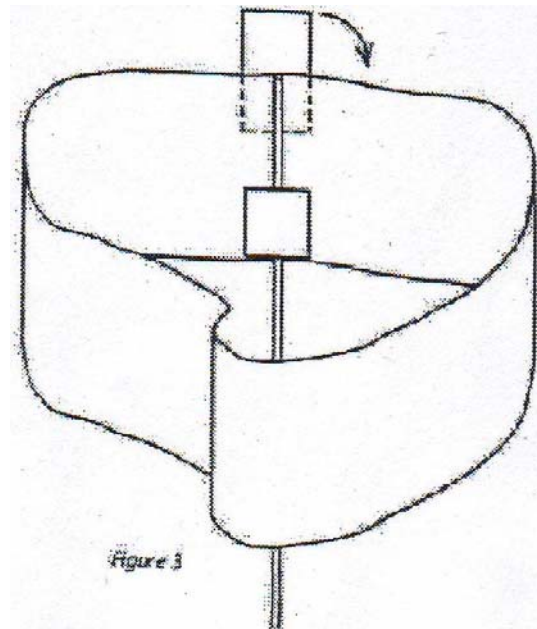


Figure 3

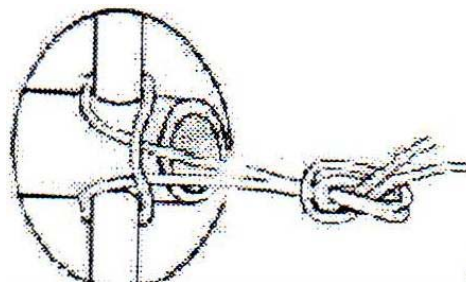


Figure 4