



Theme: Flight

Activity: Kite Making

Location: Outside

Age Range: Grades 2-5

Objectives: Students will follow directions to create a functioning kite. They will test their design and make adaptations to improve performance.

Introduction:

- Ask students who has flown a kite? What sort of kite did they fly? Have they ever built their own kite? What are the best weather conditions for kite flying?
- Show an example of a kite, how does it work? What are the most important parts?

Materials:

- Plastic bags
- 25cm bamboo skewers (4 per kite)
- 5cm of plastic tube per kite
- Scissors
- Markers
- Tape
- Twist ties with the plastic removed
- Fishing line
- Plastic for streamers (optional)
- Small piece of smooth wood or a similar tube shaped object to attach the line to

Instructions:

1. Cut out a plastic kite shape using the scissors and lay it flat on the table.
2. Use marker pens to draw a design on your kite and add color.
3. Take a piece of the plastic tubing and bend slightly before gently stretching it a little.
4. Now take the four bamboo skewers (2 long and 2 short) and sand the ends of them (this is so they will not poke through the plastic).
5. Take two of the long skewers and tape the two pointy ends together. This will form the backbone of your kite.
6. Take the piece of the plastic tubing and using the twist tie, attach it to the center of one of the two joined skewers.



7. With a pair of pliers tighten the wire around the skewer gently.
8. When you've finished head outside and test it out!

Kite Making For Child Flyers - A Simple Method

Here is my simplified procedure for making a rough-and-ready little diamond kite, regardless of what exact materials you have chosen. It's very imprecise, but it's almost certain to produce a flyable kite. In record time too!



Step 1. Form the classic diamond shape by crossing one stick over the other. Bind the sticks together with cotton line or anything else that doesn't seem too thick or heavy. The exact shape of the diamond doesn't matter. Try to make it reasonably symmetrical though. Check by eye to see that both sides, left and right, seem the same size. Another trick is to suspend the vertical spar on two fingers, and then push the cross spar through the binding until it balances better.



Step 2. Lay down a sheet of your chosen sail plastic flat on a table-top or the floor. Now lay the 2-stick cross *on top* of the plastic. There should be plenty of room for your sticks on the plastic. Use tape to stick down the spars to the plastic. Don't overdo it, 4 strips on each stick is enough, as in the photo.



Step 3. With a ruler or even by hand, use a marking pen to draw a diamond outline around the sticks. 4 straight lines, connecting all 4 stick ends in a diamond shape. Now take out a pair of sharp scissors and cut around the diamond. See the photo. Hey, this is starting to look like a kite already!



Step 4. Carefully put a sticky tape cap on all 4 spar ends. For each spar end...

- pull off a length of tape about as long as an adult's finger
- lay the tape *along* the spar, letting half the tape hang off past the spar's tip
- fold the hanging tape around to the other side, and stick down to the sail plastic

Each corner of the kite should now be neatly covered in sticky tape, with the sail plastic held firmly to each corner of the kite. The photo shows the right hand tip *before* the tape is folded under and stuck to the other side.



Step 5. Now for the bridle, which connects the flying line to the kite. Cut a small hole in the plastic sail near each end of the vertical spar. Take a length of cotton line, or whatever you have decided to use for the bridle, about three times the length of a kite spar. Feed each end through the holes in the plastic and loop it around the spar a few times. Then feed the line back through the hole and tie it off firmly. If you're worried about whether the knots might slip, use a drop of fast-drying glue to fix each knot to the spar. Now tie a loop into the bridle. Where? The loop should be either directly over where the sticks cross, or a little further toward the nose or top of the kite. With the bridle laid over to the side, it should look something like in the photo. A bit hard to see, but there's the bridle off to the left, with the loop in the end.

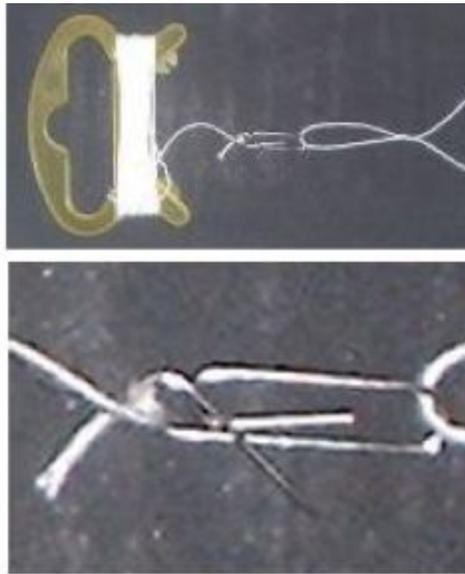


Step 6. Cut a tail out of a plastic bag, cutting it round and round like peeling an apple. Keep going until you have a length that is at least 6 times as long as the kite itself. Use another bag and stick the 2 ribbons together, if one bag is not long enough. The width of the tail should be around an eighth to a quarter of the width of the kite itself. This tail doesn't have to be accurately done at all! Just get the width and length roughly right. When you have a nice long tail, simply stick one end onto the bottom of the kite. You can use a bit more tape here, since you don't want the tail to fall



off on the first flight! I've used clear tape in the photo so you can see how I fitted the tail around the bridle knot. I also used a bit of tape on the *other* side of the kite for extra strength.

That's it about kite making for child flyers or anyone else who wants to make a working kite on the cheap and really quick!



Flying the kite! Attach a polyester sewing thread line to the bridle loop and you're ready to fly.

A convenient way to do this is to tie the flying line to one end of a small paper clip. Then just slip on the bridle loop so it's looped around the other end of the paper clip. The photos make it pretty clear, although I've attached a thicker *cotton* flying line to make it easier to see.

See how the paper clip has been bent too, in the bottom close-up photo. This way, you can easily swap your flying line from kite to kite if you make more than one.