



Make a Sled Kite

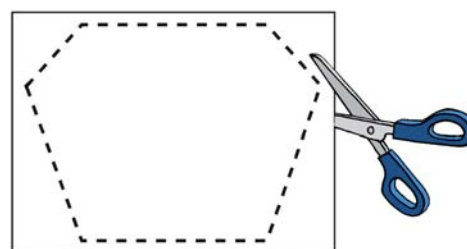
This model of a sled kite is based on the design of a 'parawing'. The first parawing was built and flown by NASA during the 1960s to see if it could be used instead of a parachute to safely land the Gemini spacecraft. Although this did not work, the design did lead to the development of the hang gliders that we see flying today.



NASA Parawing

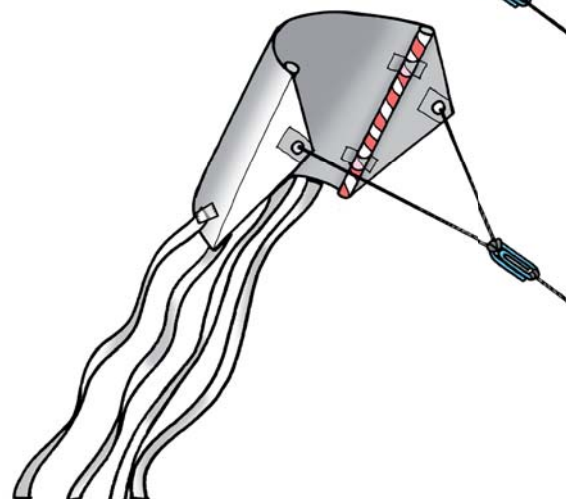
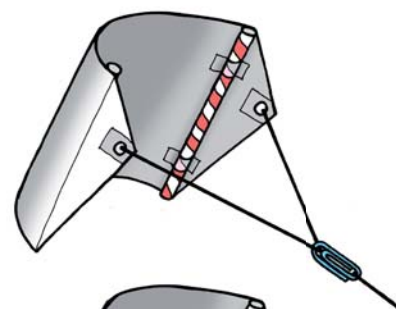
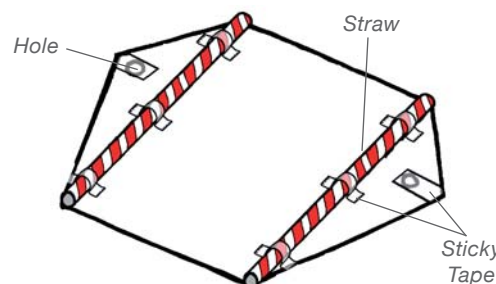
What you will need:

- ♦ sheet of A3 paper
- ♦ two drinking straws
- ♦ sticky tape
- ♦ scissors
- ♦ string
- ♦ ruler
- ♦ hole punch
- ♦ paperclip
- ♦ coloured markers and pencils



What to do:

1. Draw the outline of a sled kite onto your sheet of paper (as shown). Then cut out the shape and decorate the top of the kite using your markers and pencils.
2. Measure and cut two straws to fit the width of your kite, or make two straws by tightly rolling some paper. Tape the straws to opposite edges of the kite.
3. Reinforce the points where the string is to be attached using pieces of sticky tape. Then punch two holes and attach pieces of string (both approximately 45cm long) to each side.
4. Tie the two pieces of string to a paperclip. Then tie a third piece of string (approximately 100cm long) to the other end of the paperclip.
5. Take your sled kite outside and watch it climb as the air moves over its surface, creating lift.



Think about it and talk about it

- ♦ Try running with your sled kite at different speeds. What happens? Why?
- ♦ Experiment by adding some tails to the sled kite, using crepe paper or strips of newspaper. What effect does this have? Why?