# Matariki kite

### Kite design Manu Tangata

Design by Anita Mitchell.

### Materials required

- Kakaho (or stem of toetoe) light weight, strong wood structure. Could use bamboo as an alternative.
- Flax strips for binding it together
- Raupo or bulrush to make the slats
- A reel or long string and handle
- Bridle to tie to the back of the kite.

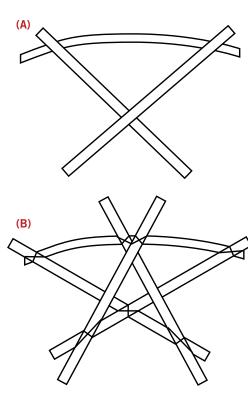
### Instructions

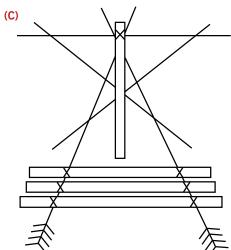
#### Making the frame: (A,B)

- 1 bind the kakaho frame using harakeke (flax) strips
- 2 the diagram to the right shows whether pieces are attached underneath or on top
- 3 once the frame is constructed, flip it over before adding raupo. This will ensure your raupo lays flat onto the frame because the middle frame bars are now at the back.

### Attaching raupo to frame: (C)

- 1 cut lengths of raupo to fit the frame (start cutting the longest strips needed, so that off-cuts can be used for smaller parts of frame)
- 2 choose flax (you can colour it or paint to make a distinctive design) and strip them into even widths
- 3 tie two strips together at one end
- 4 place knotted end underneath the frame at start point
- 5 lie ends of tied flax flush against the frame so it can be bound tidily
- 6 bind the tail first, start binding the wing in the middle. This will help to keep the raupo straight
- 7 ensure the flax strips are crossed right over left (when looking down from the top)
- 8 loop straight across at back.





### **Notes**

Binding in the middle first helps stabilise the raupo and will stop it from flopping around. You may also find it easier to bind two lines at a time, alternating back and forth after five stitches or so, as this also reduces movement of the raupo while working. Having all crosses at the front and all loops at the back is a traditional tukutuku technique so the back looks as tidy as the front.

Attach the bridle by tying string to the spine and frame in a T shape across the back of the kite. Then tie the main string to the cross bar in the 'T' securely... now you are ready to fly it.

Wait for a nice windy day and get flying.

## **Description of materials**

### Kakaho

Stem of toetoe - used for lining the walls of buildings and for making kites.

### Raupo

Bulrush, raupo, *Typha orientalis* – a tall, summergreen swamp plant distinguished by its large flowering spike which looks like brown velvet, the stems (kākaho) being used as construction or decoration material. The long, narrow leaves grow to about two metres long.

### Tukutuku

Ornamental lattice-work, used particularly between carvings around the walls of meeting houses. Tukutuku panels consist of vertical stakes (traditionally made of kākaho), horizontal rods (traditionally made of stalks of bracken-fern or thin strips of tōtara wood), and flexible material of flax, kiekie and pōngao, which form the pattern. Each of the traditional patterns has a name.

### Harekeke

New Zealand flax, *Phormium tenax* – an important native plant with long, stiff, upright leaves and dull red flowers. Found on lowland swamps throughout Aotearoa/New Zealand. It has straight, upright seed pods.

### The bridle

One or more strings attached to the spine or spars, which help control the kite in the air.

