the island geographer

You will need:

- Around 20 x 100mm cable ties
- 6 x 60cm length garden canes (ideally with one spiked end)
- 50cm length clock chain

Instructions:

1. Make a mark at 15cm and a second at 30cm down from the flat end of each garden cane.

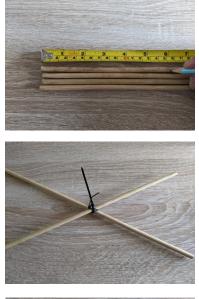
2. Create an angle of 50° between two of the canes at the 15cm mark and cable tie them together at this point to make an X frame. Repeat this for the other two canes.

Take your fifth cane and cut it with the hacksaw to make two
19cm lengths.

4. Cable tie one of these lengths so that they straddle the 2 30cm marks on your X frame. The internal width should be 15cm. Repeat this for your second X frame.

5. Take a length of clock chain and cut a 50cm length of it.

- Garden wire
- Electrical tape
- Ruler or tape measure
- Hack saw
- Wire cutters









6. With the cross supports on the outside of the frames, cable tie the clock chain (looping the tie into one of the chain links) between the two frames at the 15cm markers.

7. Take your final garden cane and cut it to a 53cm length. Make permanent and clear marks at 1.5cm, 11.5cm, 21.5cm, 31.5cm, 41.5cm and at 51.5cm from one end.

8. Cable tie this final cane to the same join where the chain meets each side of the frame, going off the 1.5cm mark at one end and the 51.5cm mark at the other. This should stabilise the whole quadrat frame. Trim the ends of all cable ties to make them safe.

9. Snip a 40cm straight length of garden wire. Wrap electrical tape thickly around the end 5cm of one end of the wire and create a 90 $^{\circ}$ turn. This is your point dibber.









10. The point dibber can be used to measure the height of plant life in10cm intervals (using the marked points as a guide) along the horizontal frame. Smaller intervals can be surveyed by adding additional markers onto the

