

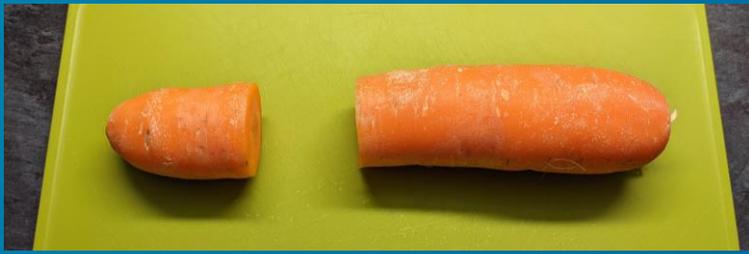
How to make a carrot ocarina

**Note: Knives and drills are used.
Adult supervision and care are required!**

You will need:

- A large carrot (at least about 15cm/6in in length and about 4cm/1.5in thick),
- A large (about 2.5cm/1in) drill bit,
- A small (about 4mm) drill bit,
- Sharp knives.





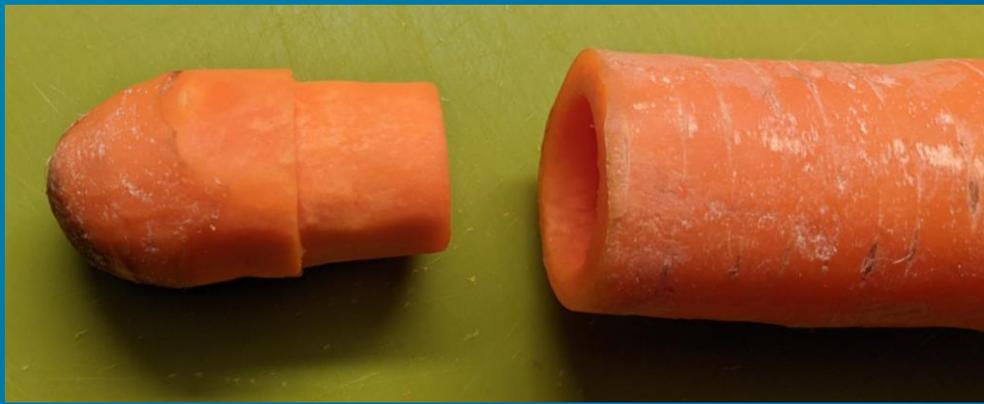
Cut about 1-2in off the bottom of the carrot. Save this for use later.



Using the large drill bit, bore a hole through the main body of the carrot. (The deeper the hole, the better, but be careful not to go through the end or sides of the carrot!)



If your drill is clean, collect the shavings, add mayo, and enjoy a tasty snack!



Carve the sides off the end of the carrot so it fits snugly in to the main bore.



Make sure you don't cut too deep and leave any gaps!
(If you have a pipe the same width as the drill, you can use this to shave the sides of the end piece.)



Then cut an angled groove from the end piece about 1.5cm long, 0.5cm wide, and 0.3-0.5cm deep.
This makes the mouthpiece of the carrot.



Cut a similar notch into the main body of the carrot. This one should be about 0.5cm from the end.

Make sure it goes all the way through to the borehole.

The end should be clean and straight, and have a small gap.

This is the whistle.



Insert the mouthpiece in to the carrot and blow. If you get a note, great!

If not, try playing about with the position of the mouthpiece, how hard you're blowing, or adjusting the cuts.



Use the small drill bit to cut a couple of fingerholes into the body of the carrot. The exact positions don't matter, as long as they're comfortable.

(Make sure to clear the loose pieces out of the inside of the carrot.)



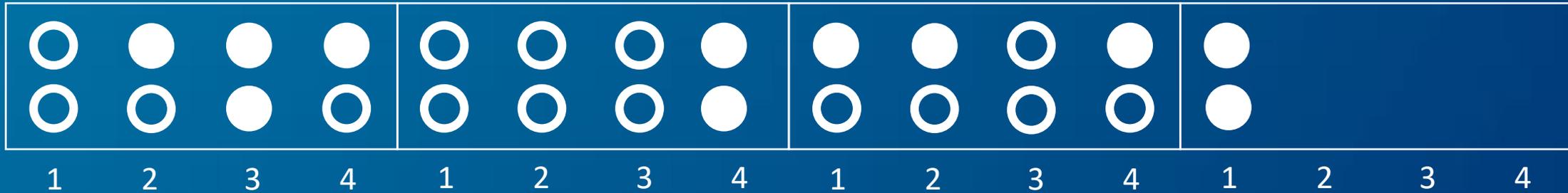
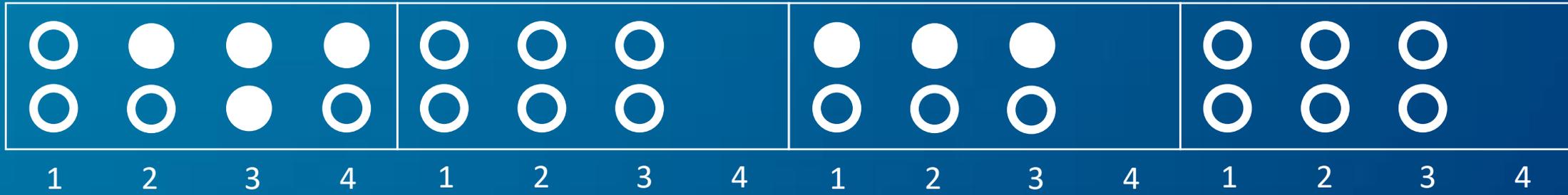
When you open the holes, it makes the sound higher.

If you're feeling brave, try adding more holes to the instrument.

But be careful. Higher sounds are harder to play!

If you've gotten this far, well done!
Here is some music for a familiar tune
using only 3 notes (2 holes).

● A filled circle means to cover the hole
○ An open circle means to open it
Each box represents a bar of four beats



To learn more about sound and hearing, have a look on our website at
www.nottingham.ac.uk/research/groups/hearingsciences/ear-facts/ear-facts.aspx