

MAKING A DA VINCI BRIDGE!

This simple bridge design combines compression and tension to create a self-supporting structure by weaving popsicle sticks together in a repeating pattern!

MATERIALS

- At Least 12 Popsicle Sticks
You can also experiment with other building materials!



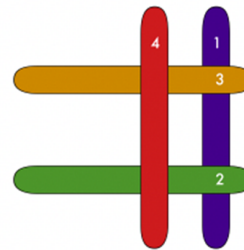
PROCEDURE

1. Find a flat, stable surface.

Start by putting down your 1st popsicle stick vertically.

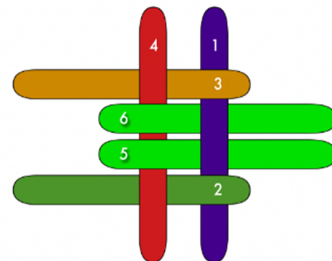
Lay sticks 2 and 3 horizontally across it.

Popsicle stick 4 should be put vertically across 2 and 3.

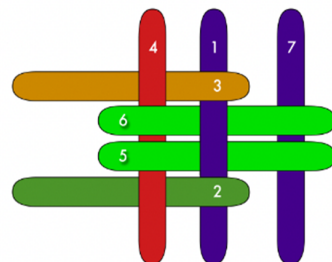


2. Popsicle sticks 5 and 6 will be beside each other.

They will need to weave under the first popsicle stick and over the 4th.



3. Your 7th popsicle stick can slide under the 5th and 6th.



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4. When weaving popsicle sticks into your structure from this step forward, press down on your bridge. This relieves the compression and tension, allowing you to add more to your structure. Popsicle sticks 8 and 9 will weave under the 7th and over the 1st. Slowly stop pressing down on your bridge.

5. Your 10th and 11th popsicle sticks will lay across your 7th, as shown.

6. Your 12th popsicle stick will weave under your 8th, over your 10th and 11th, and under your 9th. Be sure to apply pressure to your bridge when weaving.

7. The Da Vinci Bridge is a repeating pattern. If you want to keep going, repeat steps 3 through 6 until you run out of building materials! Now test your bridge. How strong was it? What can be learned from this 500 year old design?

