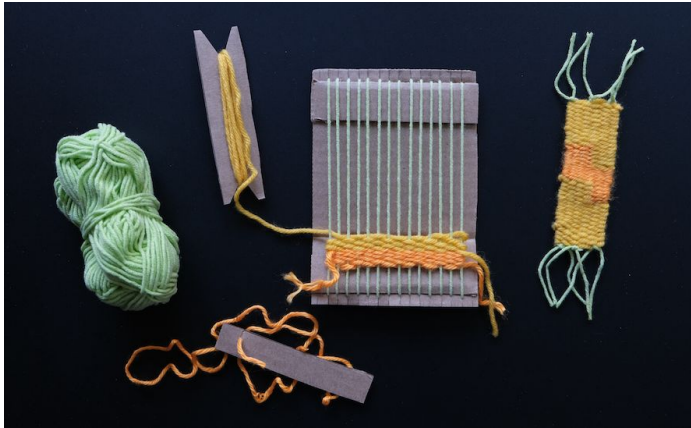


Weaving With DIY Tools

Difficulty: ★★☆☆☆ - Involves fine motor skills, adult supervision and help is needed for younger children

Time: 1.5 hours



Materials

- Cardboard (one piece 4x8 inches and two smaller pieces 1x4 inches)
- Scissors
- Ruler
- Pencil
- Glue stick
- Tape
- Yarn
- Kitchen fork (optional)

Vocabulary

- **Weaving** consists of vertical (up and down) and horizontal (side to side) threads that are interlocked together.
- **Loom** - The structure which is used for weaving to give it support and tension.
- **Even numbers** - Whole numbers which are divisible by 2 and generate a remainder of 0 (e.g. 2, 4, 6, 8, and numbers end up with the last digit as 0, 2, 4, 6 or 8).
- **Warp** - The thread that is strung over the loom vertically, and holds the tension while you weave. This is the backbone of your weave.
- **Weft** - The thread that you weave between, around, and all over the warp threads. It creates your patterns and design in the weave.
- **Shed stick** - The flat wood piece which is woven through the warp to make space, making it easier when feeding yarn using the shuttle.
- **Shuttle** - The stick with the u- or v-shaped ends used to hold thicker yarns and pass it through the warp.



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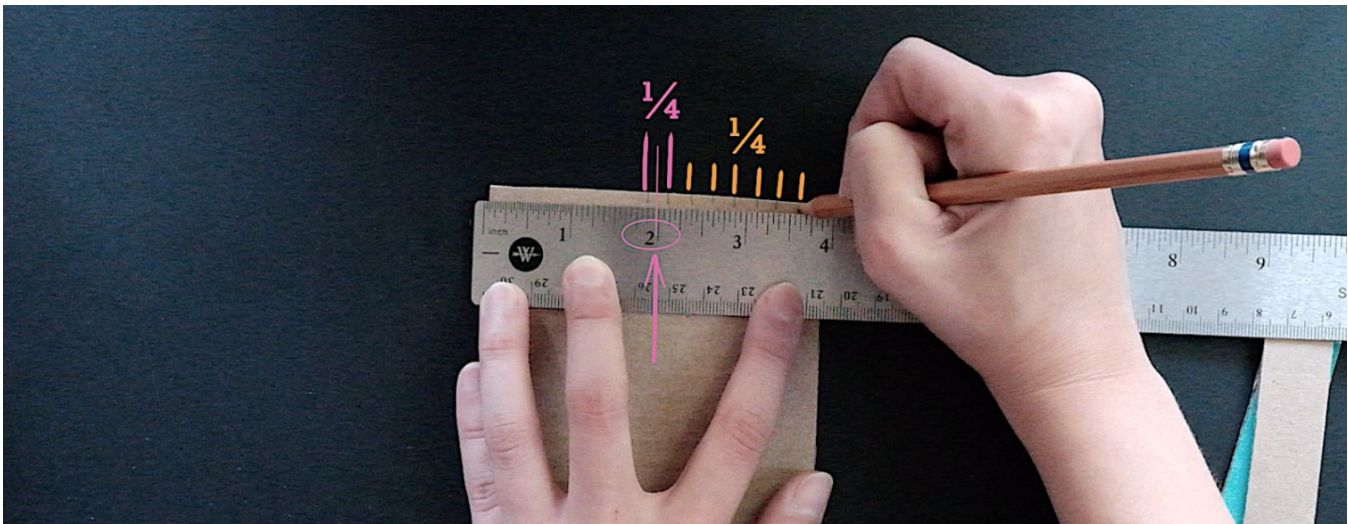
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Make your loom

1. Pick a piece of cardboard 4x8 inches. *The stronger the cardboard, the better - it will be more resistant to tension from the threads.* Cut two strips of the cardboard about 1 inch wide from one end, you will use them later to make additional parts of the loom.



2. Find the middle of your cardboard using a ruler, and then mark off every $\frac{1}{4}$ inch across the top of your piece. It is better if you make an **even number** of marks. To do this, mark $\frac{1}{8}$ inch to the left and right of the middle, and then mark every $\frac{1}{4}$ inch from the initial marks.



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3. Repeat the same for the bottom, making sure that the top marks are aligned with the bottom marks.



4. Make slits along the top and the bottom marks. Each slit should be $\frac{1}{4}$ inch deep, don't make it too deep.



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5. Your loom is almost ready. Now it's time to use these two strips of cardboard you cut earlier. Glue them to the loom just under the slits. This will lift the threads and give you some extra space for weaving.



Warp your loom

6. To create the warp, you will be wrapping yarn around the cardboard so that you have vertical strands of yarn on the front and the back that are held in place by the slits you've just cut.

Tip: Thinner, smooth yarn works best for this part.



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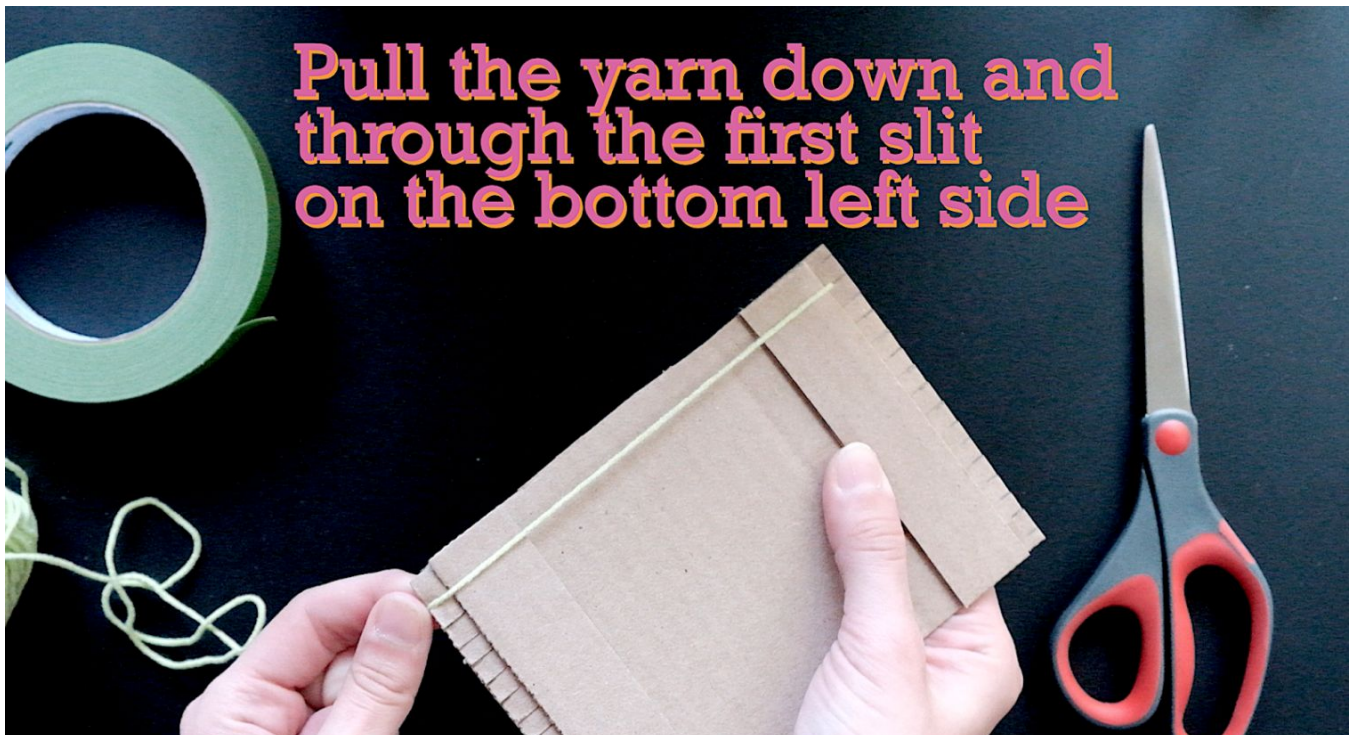
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Start at the top left slit, pushing the yarn into the slit, and leaving about 2 inches of tail, tape it to the back of the loom.



7. Then pull the yarn down toward the bottom edge and through the first slit on the bottom left side.

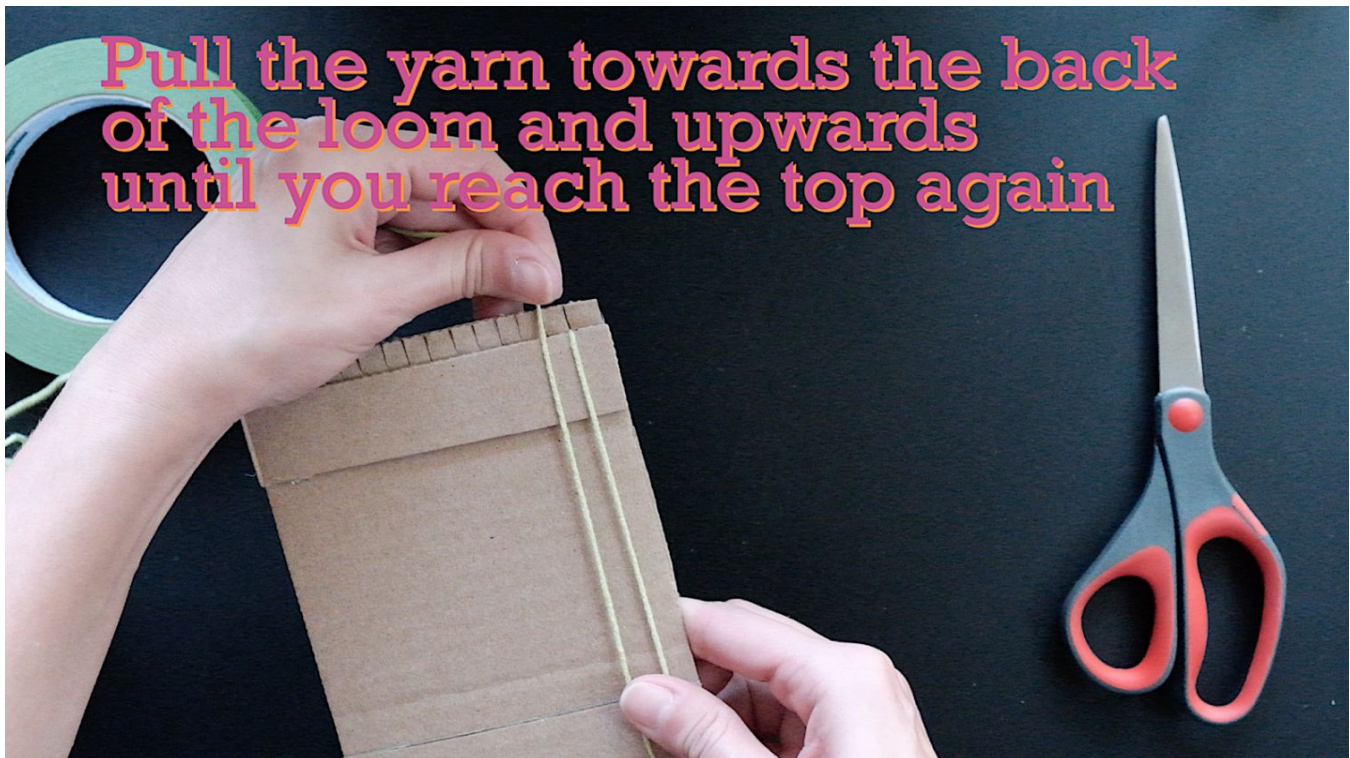
Tip: Make sure you pull it tight to create tension, when plucked the wrap should sound like a string.



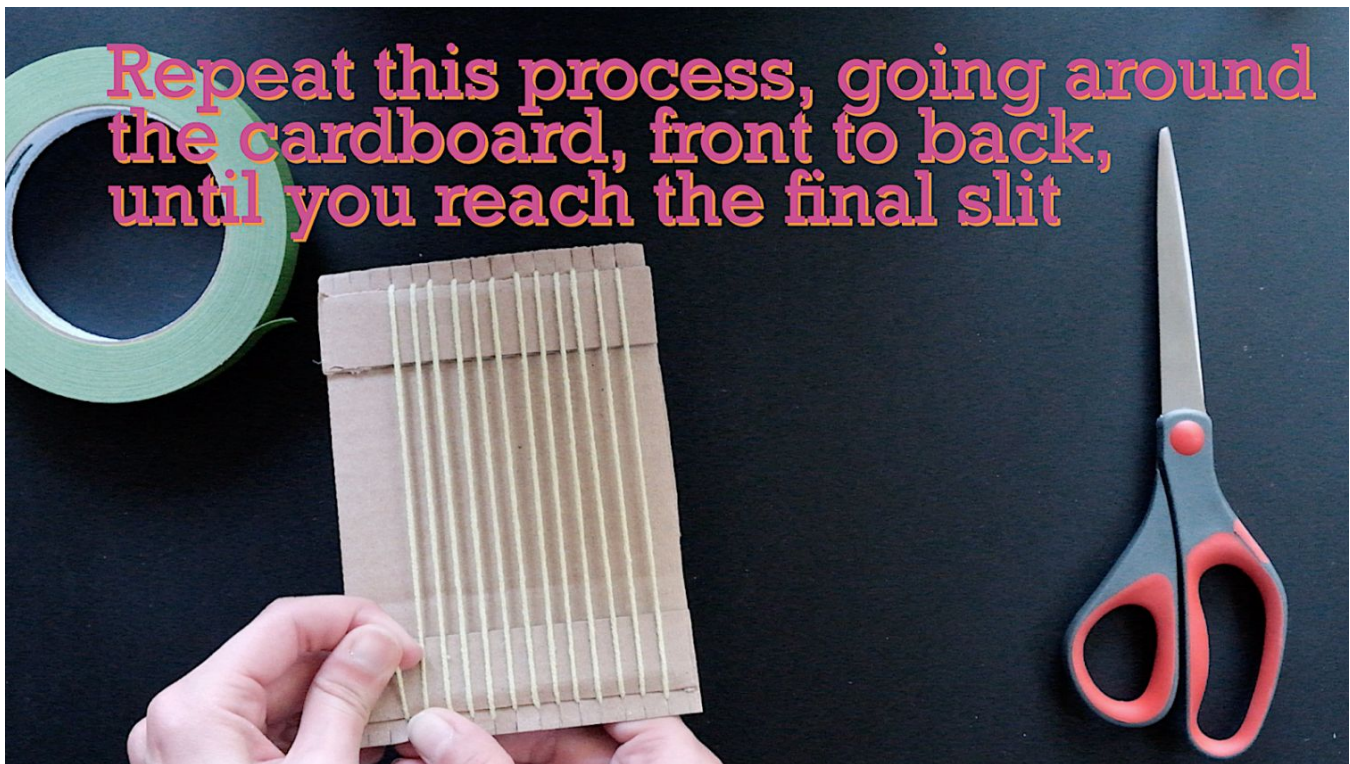
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8. Pull the yarn towards the back of the loom and upwards until you reach the top again.



9. Repeat this process along the entire length of the loom, going around the cardboard, front to back, until you reach the final slit.



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10. Cut the yarn leaving 2 inches of tail and tape it to the back of the loom.

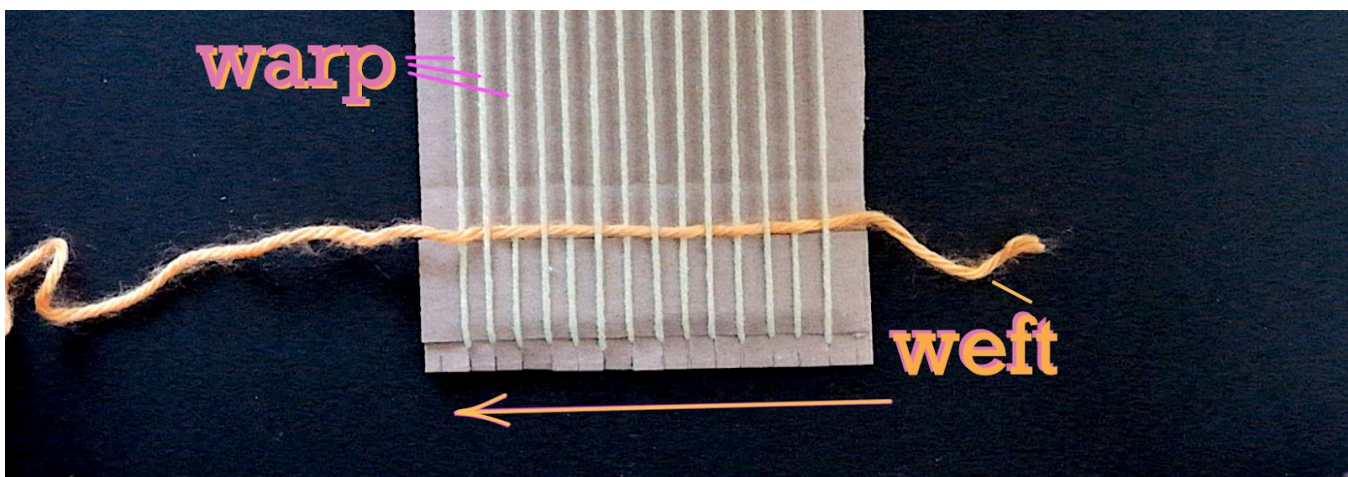


Simple weaving technique

Now for the fun part! This is where you can express your creativity through colors, textures and, finally, ideas on how to use your weaving.

Tip: Cut a shorter length of yarn (no more than 2 feet), to make your work easier.

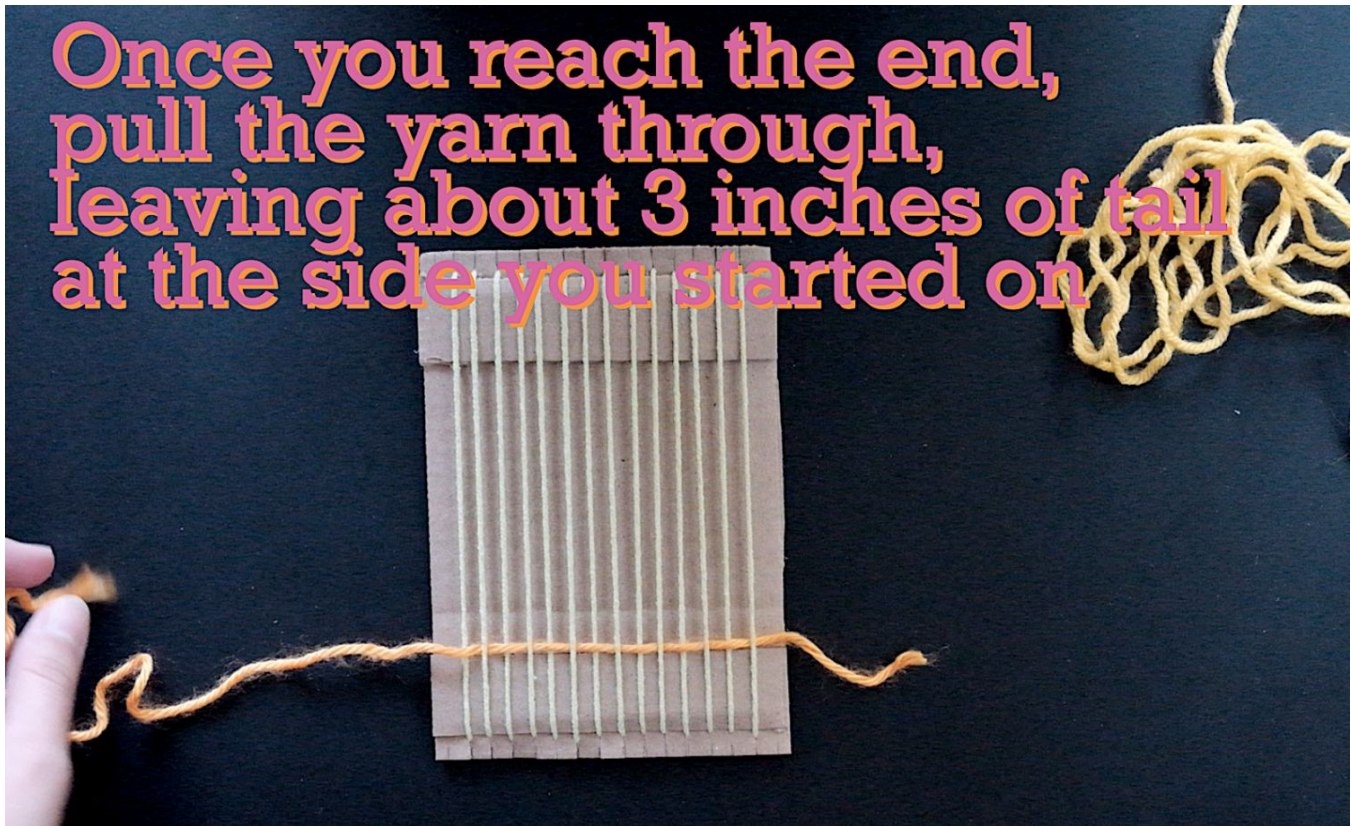
1. You can try to weave without any tools. Take one end of the thread and weave it into the warp threads by going *under* and *over* each alternate strand.



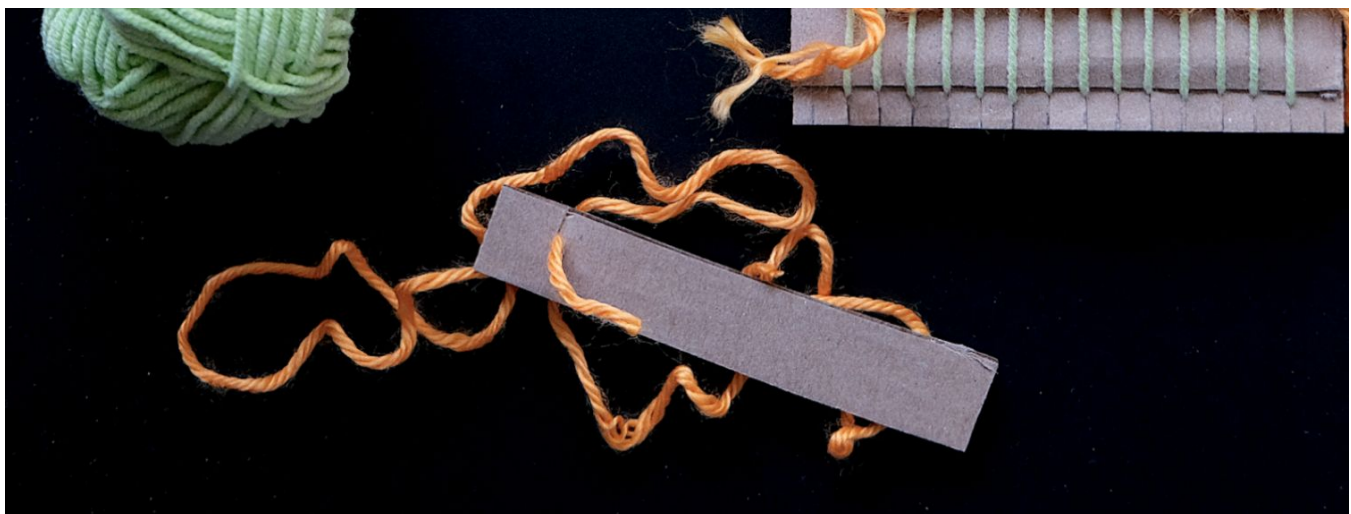
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2. Once you reach the end, pull the yarn through, leaving about 3 inches of tail at the side you started on.

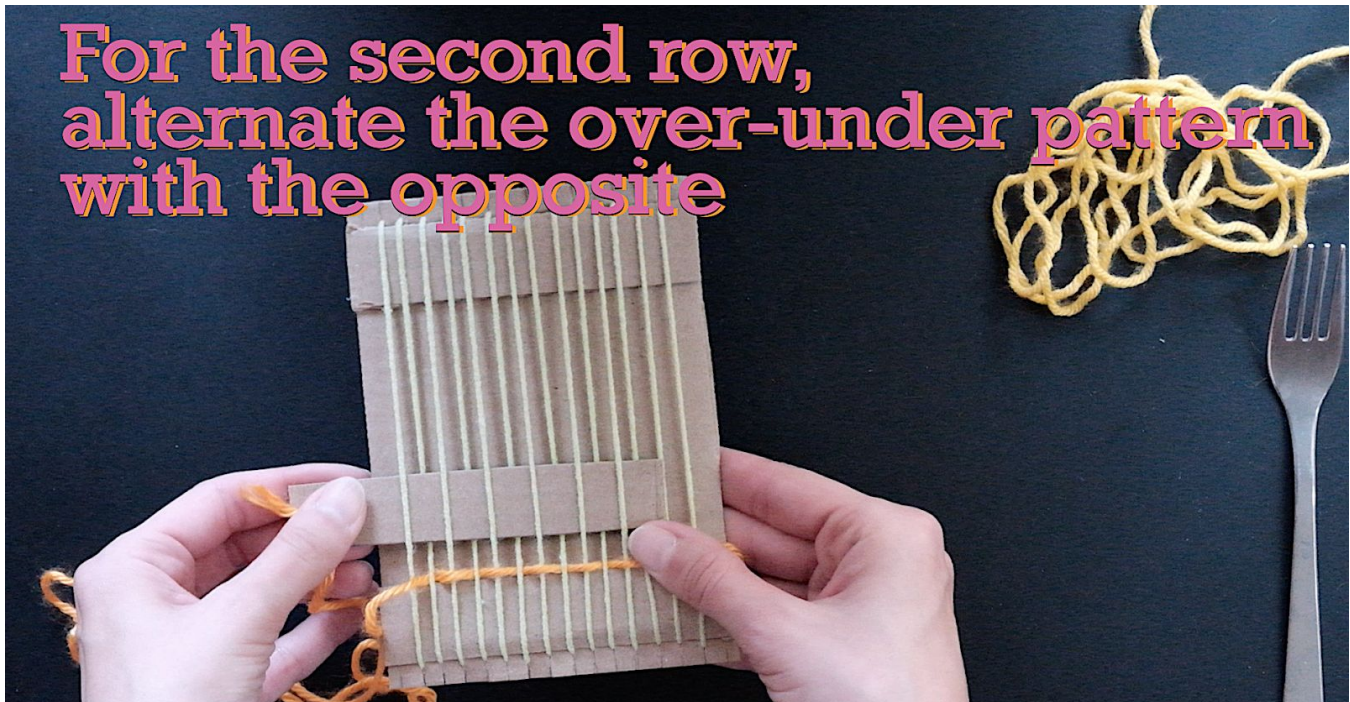


3. It is easier to weave using a needle to guide the yarn through the warp in an *under-over* pattern. If you don't have a weaving needle you can make an alternative from cardboard. Cut a strip of the cardboard about 1 inch wide and make a slit on one of its wider sides. Push the yarn into the slit, the eye of your 'needle'.

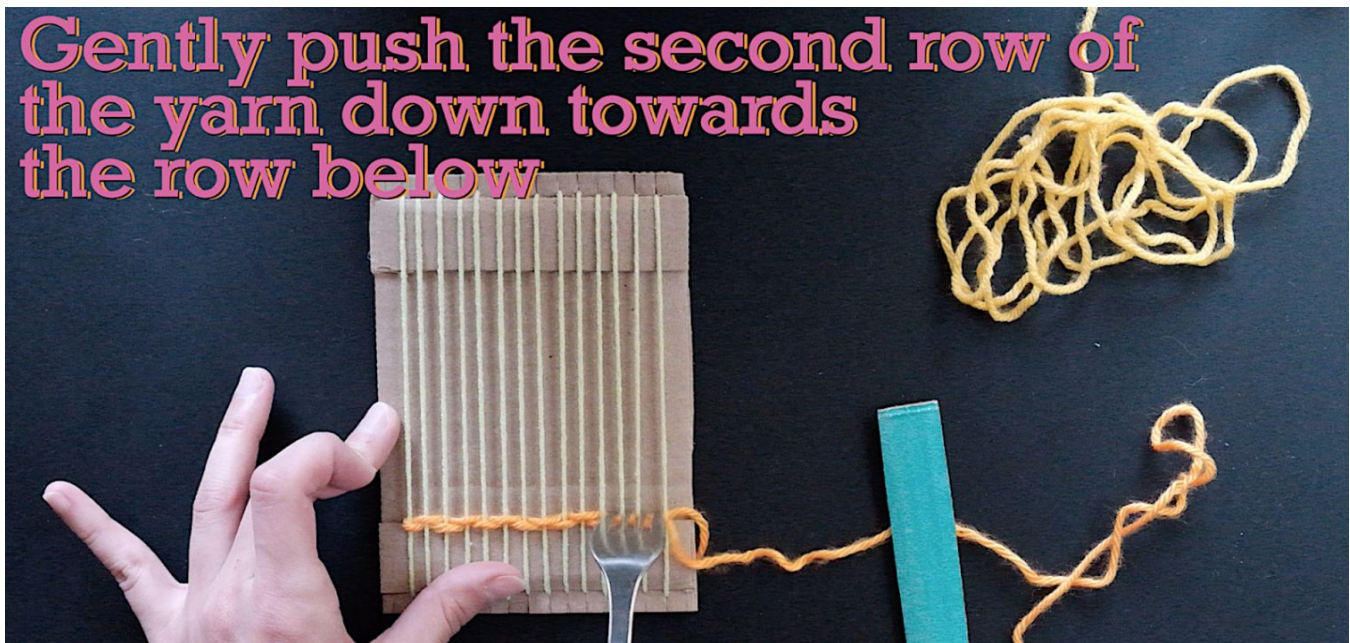


4. Bring the 'needle' and yarn back through the loom from the side you just exited. For the second row you start opposite of where you ended. If your weft thread ended **over** the warp thread, your next row would be going **under** the same warp thread, then going **over** next, and so on. Once you reach the end, pull the yarn through.

Tip: Don't pull the weft thread too tight - it will cause the sides to cinch towards each other!



5. Gently push the second row of the yarn down towards the row below, using your fingers or a fork.

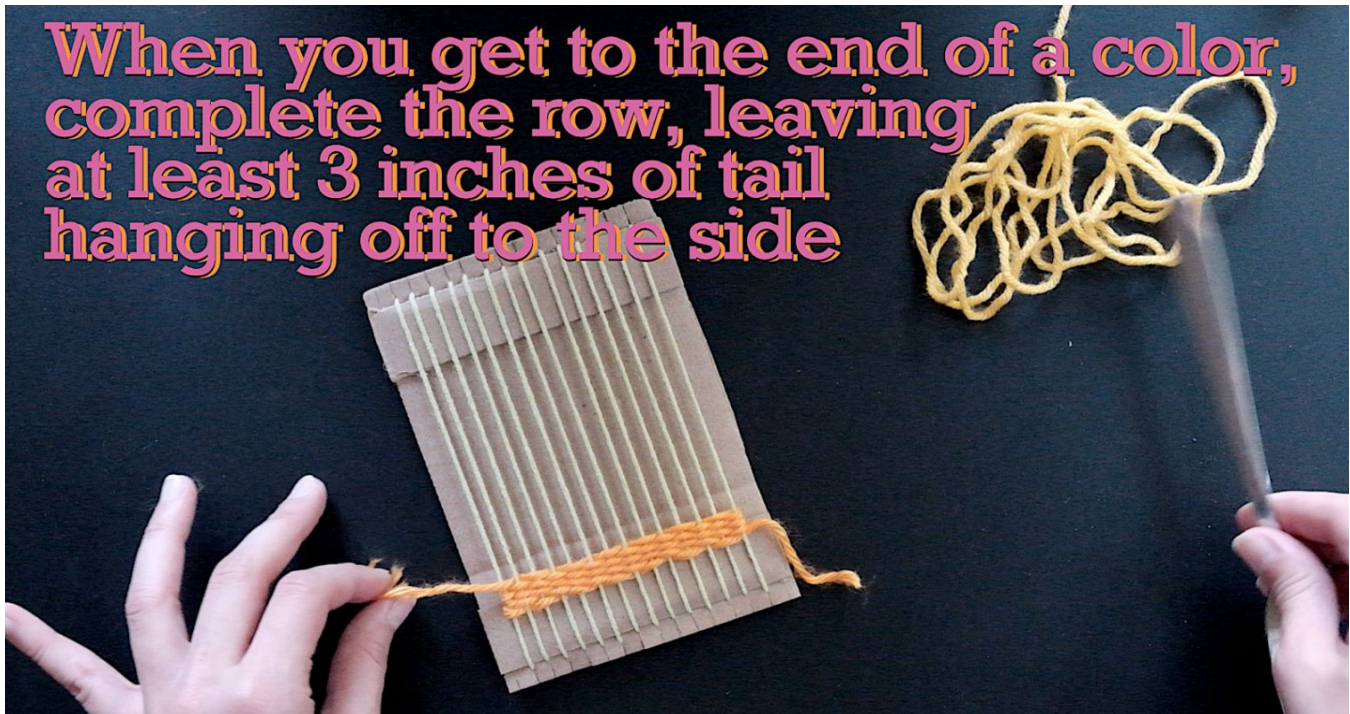


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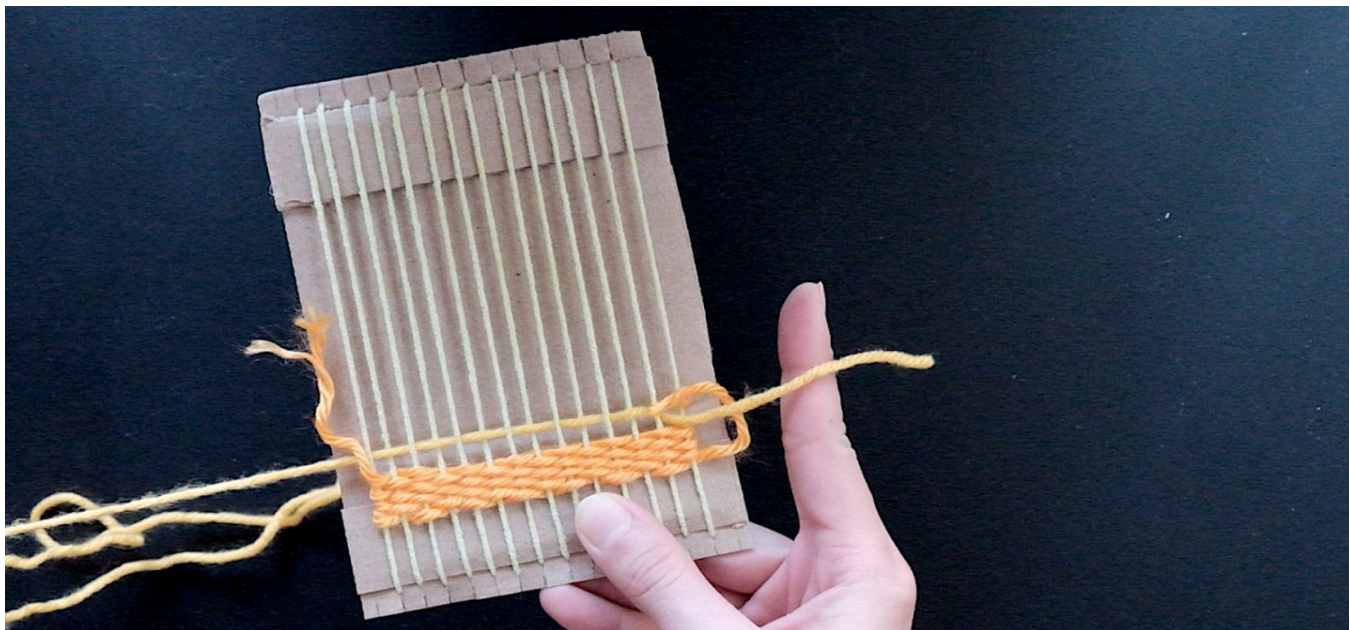
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6. Continue, alternating the **over-under** pattern in each new row. Remember to push each row together and not to pull the weft thread too tight.

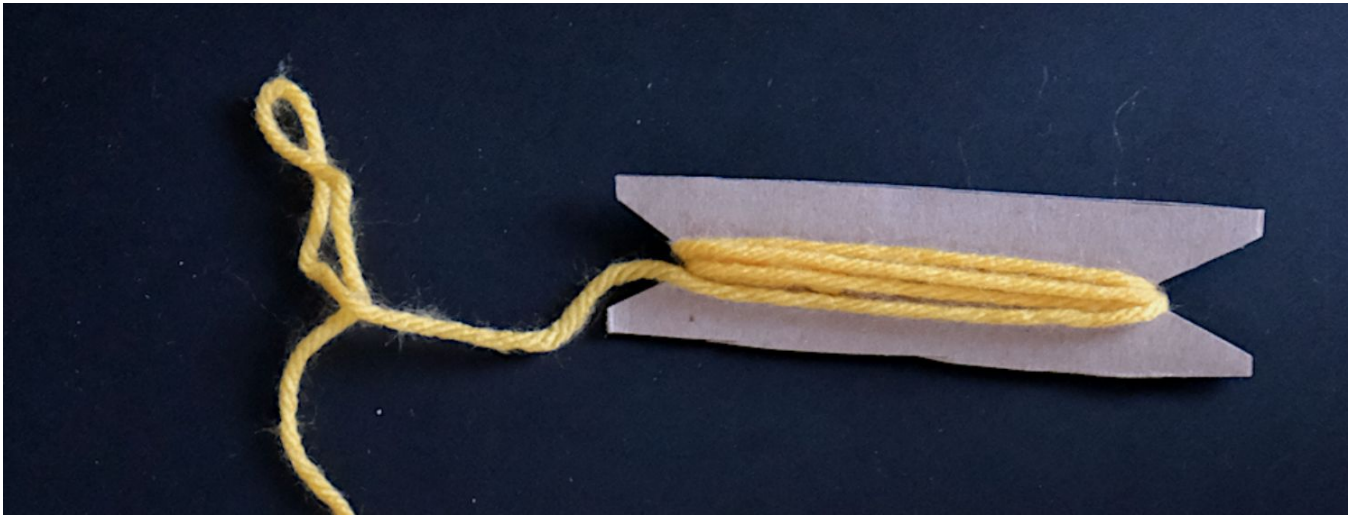
7. When you get to the end of a color or when you are ready to switch colors, complete the row and then snip off the yarn, leaving at least 3 inches of tail hanging off to the side.



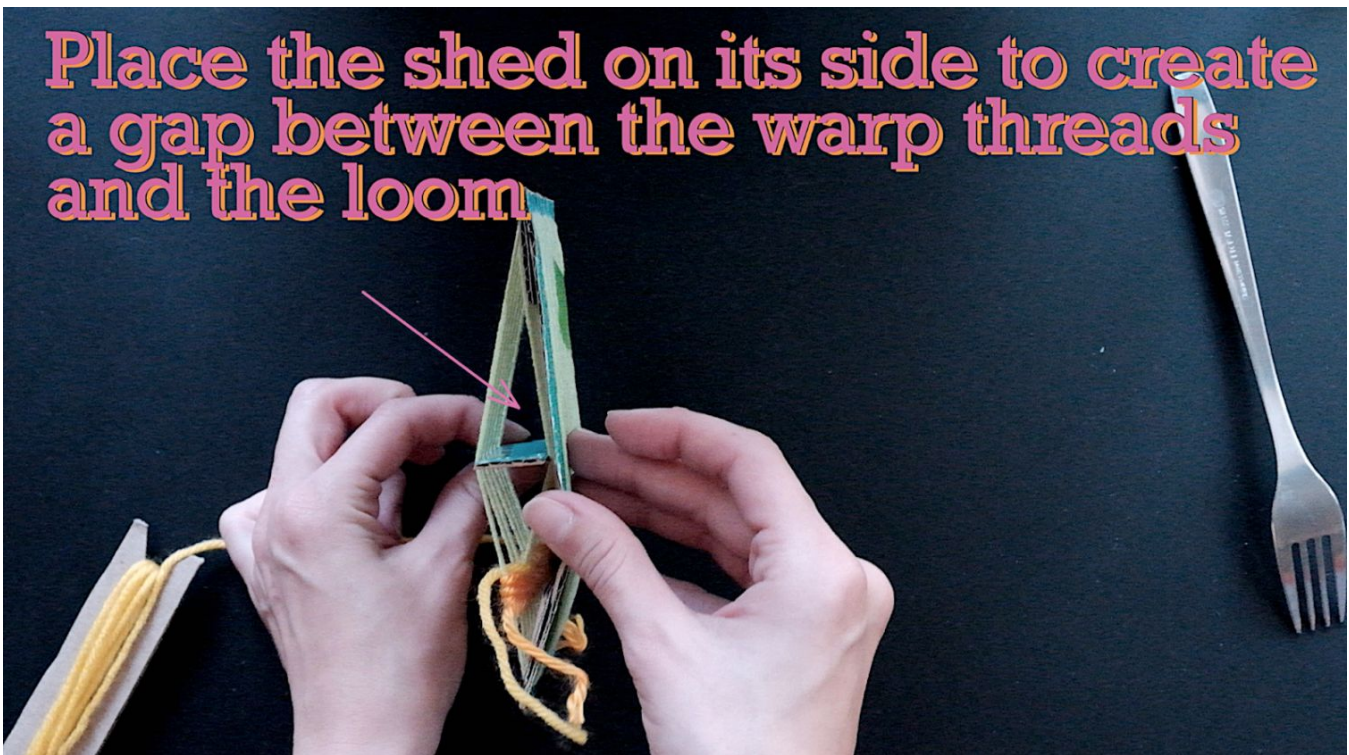
8. Then thread your 'needle' with a new yarn. Follow the same **over-under** rules as before, alternating each row. So if the tail of the yarn ended going **under** the last string, you'll start your new yarn going **over** it. Pull your yarn through and make sure to leave a tail at the end.



Tip: If you want to use longer yarn, make a shuttle (stick with the v-shaped ends). Cut a strip of the cardboard about 1 inch wide and cut out triangles at both narrow ends of the strip. Wrap the yarn around it. Wrap the yarn around it.



Use your 'needle' as a shed stick by feeding it **over** and **under** all the way across your warp threads. Place the shed on its side to create a gap between the warp threads and the loom.



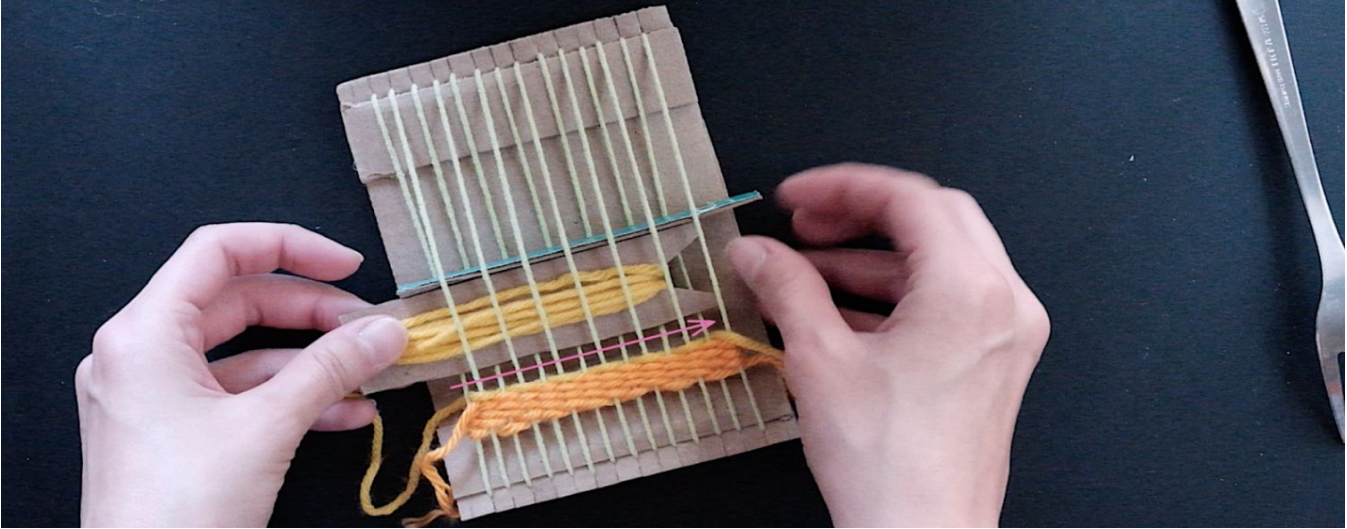
Now you can easily pass your thread on shuttle through it. Once you are finished, lay your shed stick flat again and pull it out.



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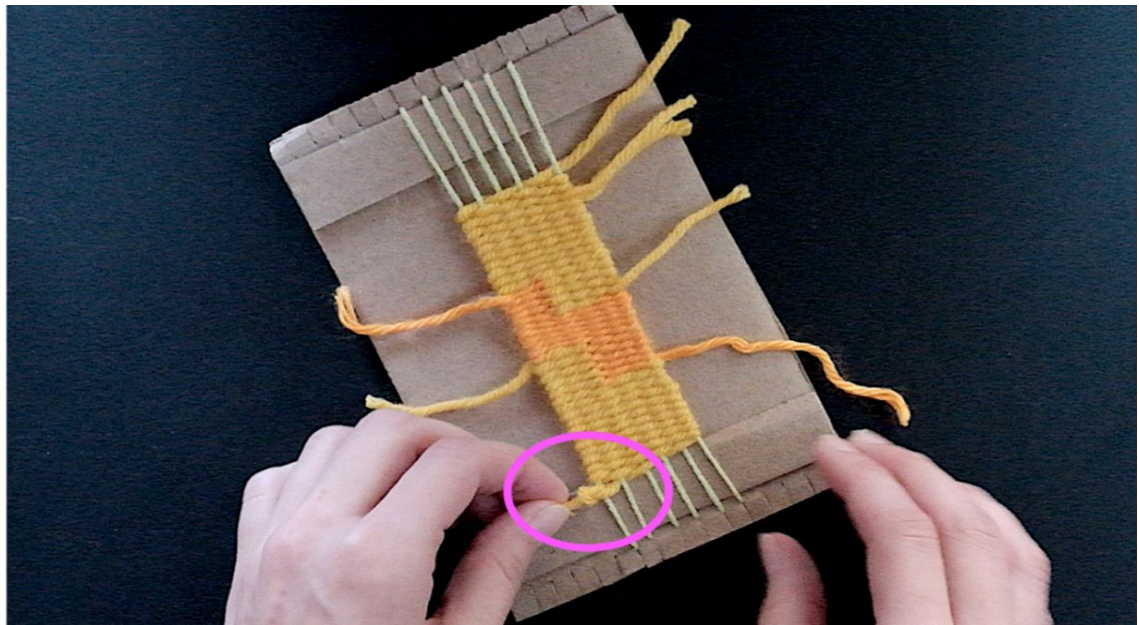
Now you can easily pass your thread on shuttle through it



9. Continue weaving, using any tools you like and changing thread colors until you reach the end of the loom.

Finishing your weaving

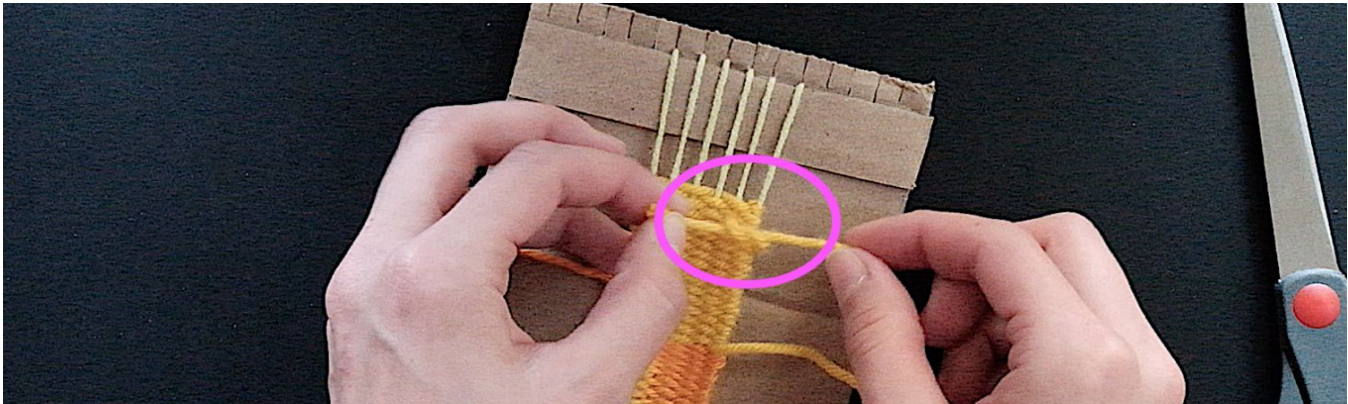
10. It can be a bit tricky without a needle, but let's try! First secure the lower and upper loose ends by tying them to the nearest wrap thread. You can snip off excess yarn.



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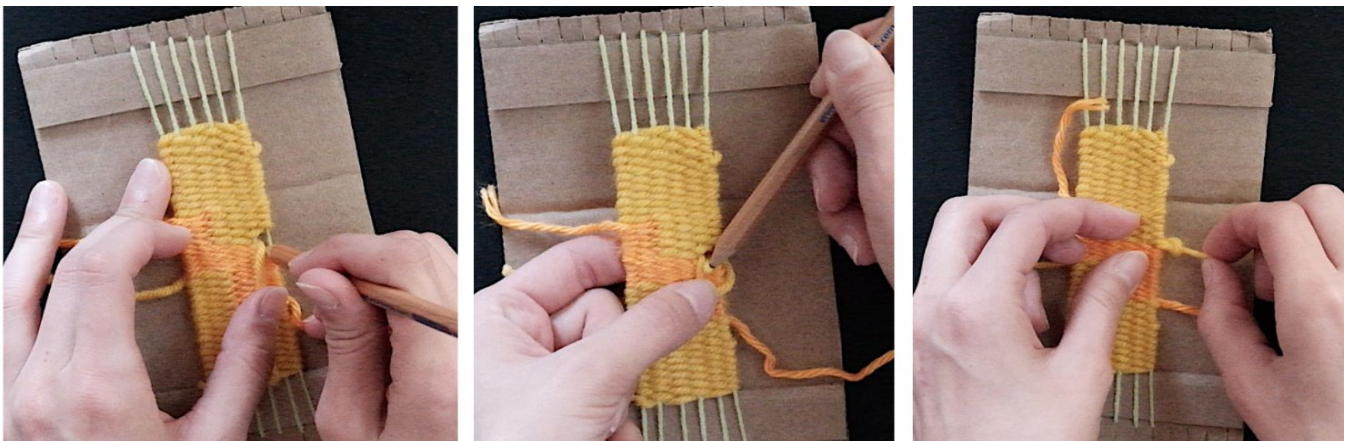
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11. If you have two ends next to each other you can tie them together. Then the yarn tails can be pushed into the back of the weaving with a pencil.

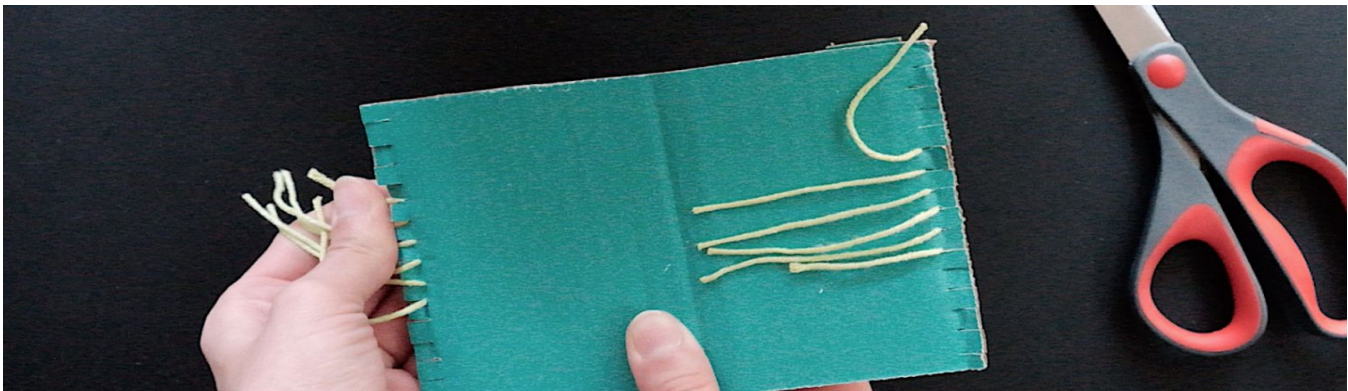


12. You can tie other ends to the warp thread or push them to the back of your weaving. Use a pencil to create openings between the woven threads or to push the thread through. After all of the ends have been secured, you can snip off any excess yarn.

Tip: If you have a needle you can pull the loose ends through a loop at the back of your weaving.



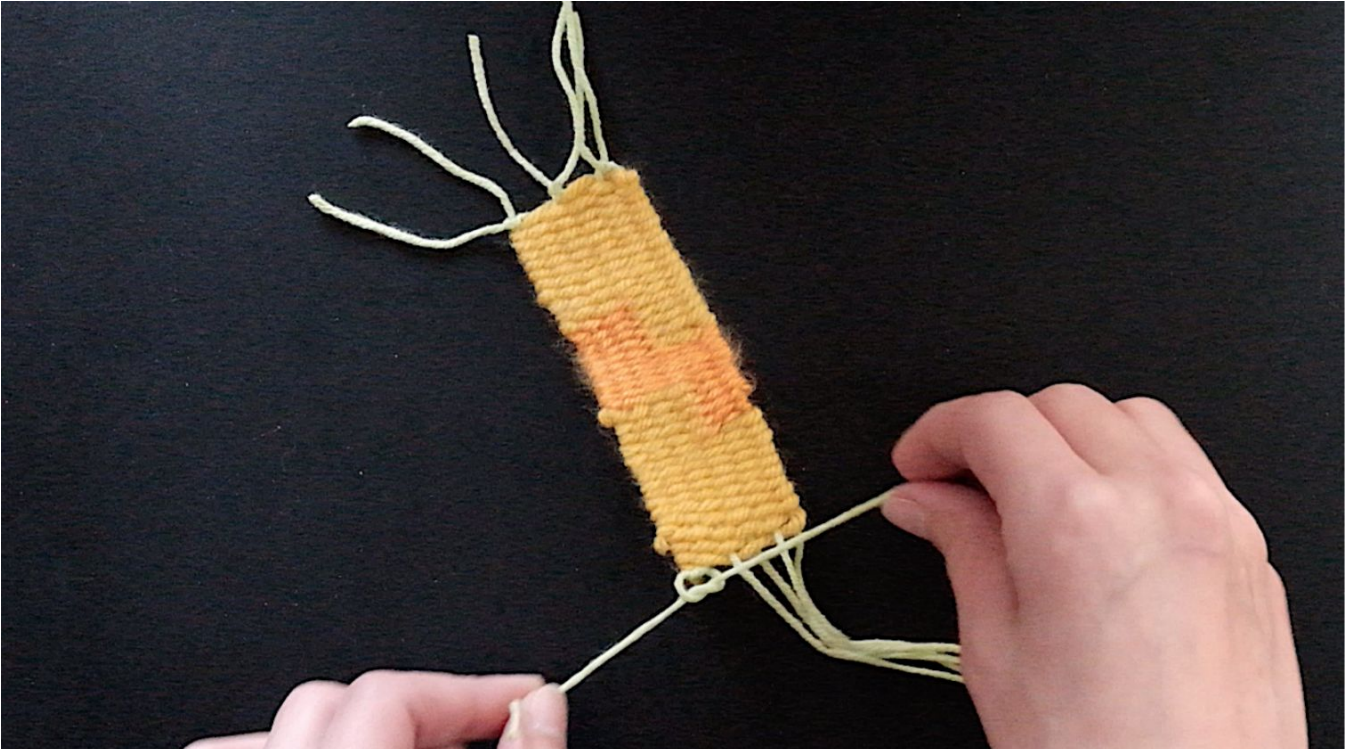
13. Turn your loom over and cut the warp yarn. Gently remove your weaving from the loom. Snip off any excess yarn on the back of your weaving.



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14. Tie the warp ends along the edges of your weaving, two at a time. Be careful not to pull too tightly, as this could cause the weaving to bunch.



15. And now you're done! Enjoy your woven piece, which can be transformed into anything you want!



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