

# Bridges Conference 2019 - Weaving Mondrian with GeoGebra

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## Instructions: Weaving your design

Setting up the loom:

- Start by **warping** your loom (see *Warping a Lap Loom* attachment). This creates the vertical lines which will then be woven over.
- Next attach tassels by tying **rya knots** (see *Rya Knots* attachment) above each nail.

Weaving:

- To start weaving, cut a piece of yarn no longer than the width of your arm span. The yarn will likely become tangled if it is any longer.
- Thread the yarn through a tapestry needle and start by weaving over, under, over, under on the warp threads. We call the horizontal yarn the **weft**. Make sure you leave at least a three inch tail at the start and end of each piece of weft yarn. This will be tucked in later. This simple pattern of over, under, over, under is called **tabby weaving**.



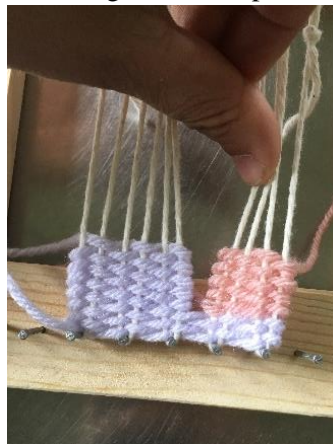
- Weave your created design using your pattern on GeoGebra changing colors when necessary. You will weave the pattern from the bottom to the top. Keep in mind that you will need at least an inch of space between the last weft row and the top of the loom to finish the weaving off. Make sure you do not pull the weft threads too tight as your weaving will begin to shrink in towards the middle.
- As you are weaving the weft, weave it in the shape of a rainbow before pushing it down into place. This helps keep the tension unified. This method is called **bubbling**.



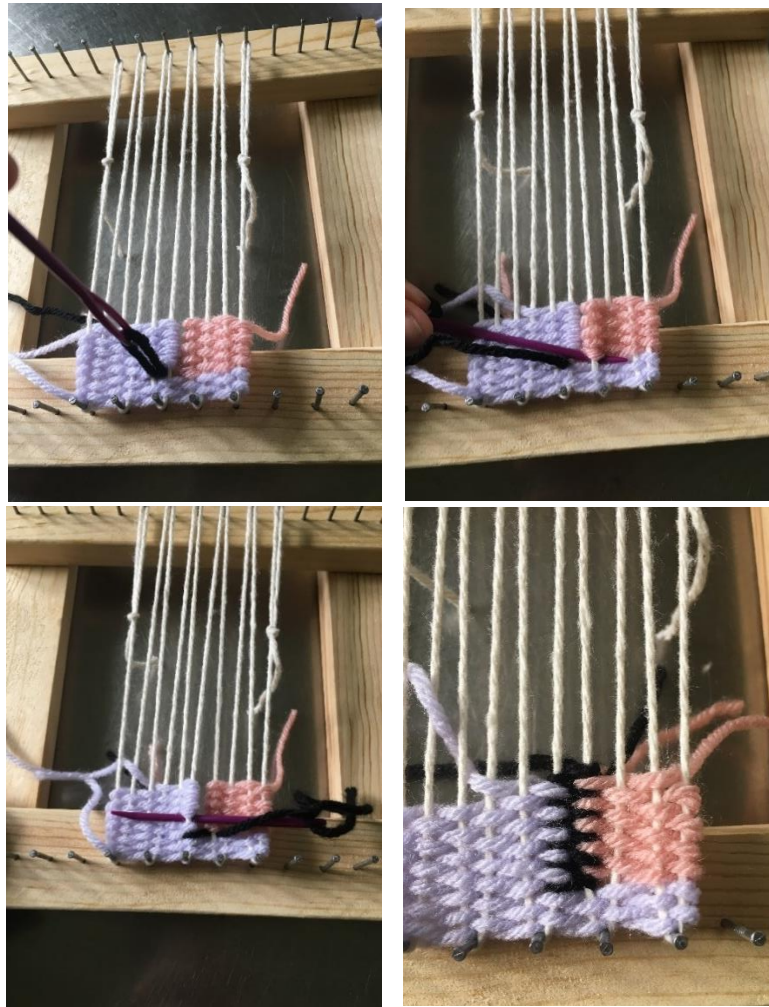
- Use your fingers to gently push the weft threads down into place as you weave each row. Keeping this tension consistent will result in a more polished end product.

#### Interlacing:

- Once you have woven all of your colored rectangles, you will need to connect them. To do this, we use a technique called **interlacing** which sews the weaving together.
- Begin by threading your needle with yarn. Identify the leftmost warp strand and the rightmost warp strand for the areas in which you are going to interlace together. You can see the gap shown in the picture below where the leftmost warp strand is covered by purple and the rightmost warp strand is covered by pink.



- Starting from the backside of the weaving, place the needle to the left of the leftmost warp strand. Bring the needle to the front and then down to the back looping around the right of the rightmost warp strand. Come back to the front and repeat the pattern by going down to the back and looping around the left of the leftmost warp strand and up. This creates a figure eight pattern. Continue doing this for all of the areas in which you wish to sew together by working your way up through each row of weft. Make sure you pull tight as this will make the finished design more polished.



Finishing:

- After you have woven all of the design and interlaced in any spots necessary, being by tucking any loose strands into the back of the weaving. To do this, simply decide where you want the loose strand to go, thread your needle, and sew the loose strand vertically into a few weft rows. You can then snip any excess yarn leaving about one centimeter of a tail.





- It can be challenging to tuck pieces in around the wooden frame of the loom, so any challenging pieces can be tucked in after the weaving has been taken off the loom.
- Once the tails have been tucked in, start to remove the weaving from the loom by popping off one set of warp strands from around a nail at the top of the loom. Tie a **loop knot** (see *Warping a Lap Loom* attachment for directions on tying a loop knot) so that it sits directly on top of the weaving. This will hold the weaving in place. Continue doing this with each set of warp strands.
- Once all the warp strands have been removed and tied on top of the weaving, gently remove the weaving from the bottom set of nails.
- Finish tucking in any loose strands, including the excess warp strands at the top of the weaving. You have now finished your bookmark!