

How to create a plaid pattern using planned pooling

By Kath Atkinson

I hope that by using the information in this file you will feel comfortable to try this intriguing technique. I have used the term 'plaid' throughout even though I realise that some of the designs shown are not plaid (which has right angles and is therefore made of squares) but are in fact argyle (which is made of diamonds). Whichever shape you decide to produce, I hope you enjoy trying out these instructions and successfully create some colourful handiwork.

Yarn

The basic requirement is a yarn that has a repeated colour sequence and each element of the sequence is the same length every time. The Himalaya Everyday Ekose (Plaid) is specifically designed to successfully create a plaid pattern. Various other yarns, not called 'plaid', also possess these qualities. However, not all variegated yarns will work, so it is best to check a list or just buy one ball to test before splashing out. A Facebook group called 'UK Planned Pooling Crochet & Knitting Plus Useful Yarny Tips And Topics' maintains a file of yarns available in the UK which users have successfully used.

Doing a swatch to test it all out

If you just want to try out the technique [The Best Crochet Planned Pooling Tutorial](#) video on YouTube gives a very good explanation of the concept using crochet. (Be aware that US crochet terms are used). I have not found a good video which demonstrates knitting. However, the internet tool described below does cater for knitters. So, I'd recommend gaining an understanding of the overall idea from the crochet video then move to the internet tool to create a pattern for knitting. Even if you are a crocheter, keen to try out the internet tool, it is well worth watching the video to get an idea of the concept.

An essential rule whether using knitting or crochet is to make the same number of stitches every time you encounter the same element of the colour sequence. As there MUST be the same quantity of stitches each time, a smaller/bigger hook/needle can be useful to ensure the stitch count is maintained.

If, having understood the basic concept you want to learn more, the instructions below will help you to do various things. For example, see what the design will be like depending on which colour you start with, see how the

design changes if you use a more yarn hungry stitch, or work out how many stitches you need to use to make your project a certain size.

Using an internet tool to refine the design and print a pattern

There are several tools available but I have used [Crochet Color Pooling](#) created by Dr Laura Taalman. It may have crochet in the title but don't be put off, it works for knitting too (see example lower down).

Planning the Design

Firstly you need to know the number of stitches per element in the colour sequence. To get these numbers, work the whole colour sequence several times, using a stitch you feel would be appropriate for the item you are making. Note down the most frequent number of stitches you worked for each element. Don't discard this piece of work as it may be useful later on.

Using the internet tool you can see the design your stitches will make. Note that after entering something on the tool you need to press Enter or click the mouse. This tells the tool to create a new design using the information you have just given it.

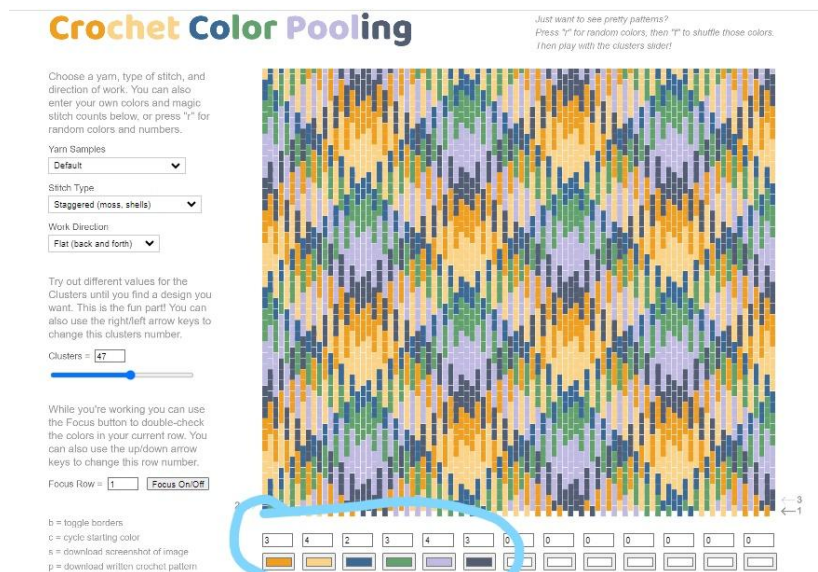


Figure 1 Screenshot of tool showing boxes for stitch colour and count

Go to the boxes underneath the coloured pattern (circled in Figure 1) and starting with the box on the left insert the number of stitches you wrote down. Also change the colours below the numbers by clicking on them and selecting as appropriate. Make sure you do this in the order that the colours appear in your yarn.

The tool comes up with 6 colours as shown in the pic. If you are using fewer colours, once you have inserted all your numbers/colours, just change the number above the extra boxes to 0 (zero). This makes the tool ignore them and only work with your colours.

The tool will show a new pattern in the colours you have inserted. It may be a total mess but it won't be for long.

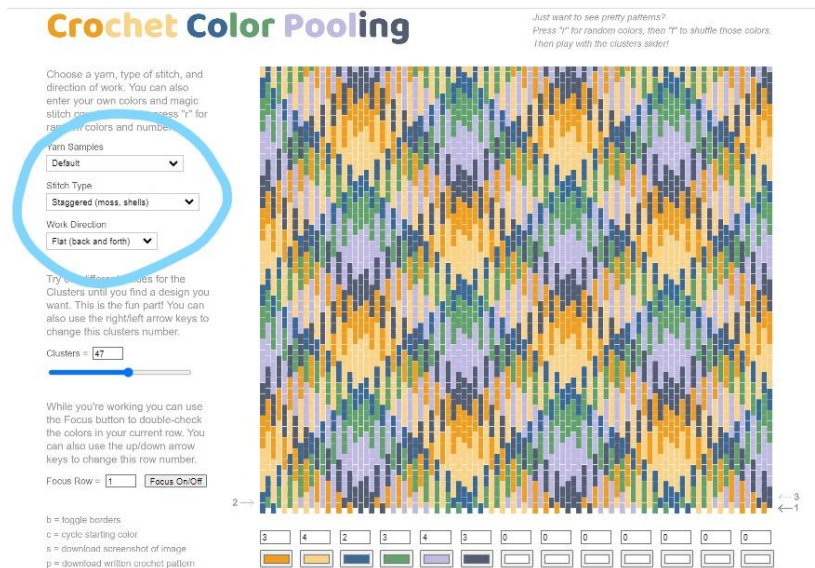


Figure 2 Screenshot of tool showing boxes for 'work type' information

Move to the left hand side of the screen where there are three boxes (circled in Figure 2) which ask about the work you are going to do.

Set them as follows:

'Yarn Samples' make it say Default;

'Stitch Type' select whether your stitches sit one on top of the other (like stocking stitch) or are staggered (like crochet moss stitch);

'Work Direction' select whether you are working back and forth, or round and round e.g. on circular needles.

The design picture may have changed and it may still be a mess. The next stage, where you decide how many stitches to use, will make it show a plaid design as long as the chosen yarn is suitable for this technique.

Crochet Color Pooling

Just want to see pretty patterns?
Press "r" for random colors, then "t" to shuffle those colors.
Then play with the clusters slider!

Choose a yarn, type of stitch, and direction of work. You can also enter your own colors and magic stitch counts below, or press "r" for random colors and numbers.

Yarn Samples
Default

Stitch Type
Staggered (moss, shells)

Work Direction:
Flat (back and forth)

Try out different values for the Clusters until you find a design you want. This is the row pattern. You can also use the right/left arrow keys to change this clusters number.

Clusters = 47

While you're working you can use the Focus button to double-check the colors in your current row. You can also use the up/down arrow keys to change this row number.

Focus Row = 1 Focus On/Off

b = toggle borders
c = cycle starting color
s = download screenshot of image
p = download written crochet pattern

Figure 3 Screenshot of tool showing box and slider for stitch count

Move down to the box which is call 'Clusters' (circled in Figure 3). Think of it as saying 'Stitches'. Change the number in here, (or move the blue line underneath). You need to press 'enter' or click the mouse to see the design change. Keep altering the number until you see a design you like. Note down the number. This represents the quantity of stitches you need to do to achieve the exact design shown on the screen.

Note when altering the width, stitch type and work direction you may find a different, non plaid, design which appeals to you. There is nothing to stop you using that for your work. Follow the remaining instructions to check work size and print a pattern etc.

Before embarking on a project it is useful to check whether the number of stitches would make your piece the right size. This can be determined by using the work created earlier when you checked how many stitches could be made in each colour element. Count how many stitches you had in 4 inches or 10 centimeters and then calculate how wide your project would be if you made it as wide as the number in the internet tool's 'Clusters' box.

To adjust the size you could consider altering the number of stitches in the width to include more/less Xs in the plaid design. Or, as different stitches use a different amount of yarn, you could try a different stitch. The following shows an example of how stitch selection can affect the design.

Crochet Color Pooling

Just want to see pretty patterns?
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Then play with the clusters slider!

Choose a yarn, type of stitch, and direction of work. You can also enter your own colors and magic stitch counts below, or press "r" for random colors and numbers.

Yarn Samples

Stitch Type

Work Direction

Try out different values for the Clusters until you find a design you want. This is the fun part! You can also use the right/left arrow keys to change this clusters number.

Clusters =

While you're working you can use the Focus button to double-check the colors in your current row. You can also use the up/down arrow keys to change this row number.

Focus Row =

b = toggle borders
c = cycle starting color
s = download screenshot of image
p = download written crochet pattern

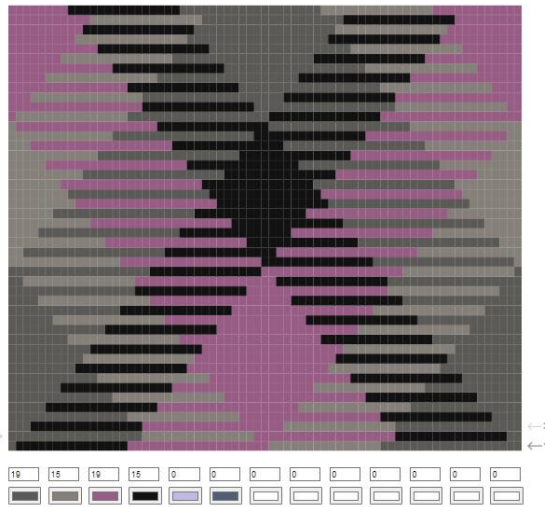


Figure 4 Screenshot of tool showing knitting design at 69 stitches wide

Using Himalaya Everyday Ekose (Plaid), the colour sequence is dark grey, pale grey, purple, black. Knitting using 5mm needles and stocking stitch I got the following stitch numbers: 19 dark grey, 15 pale grey, 15 purple and 19 black. To see the plaid pattern appear, I would need to cast on 69 stitches, which would only create one large X (see Figure 4).

Crochet Color Pooling

Just want to see pretty patterns?
Press "r" for random colors, then "t" to shuffle those colors.
Then play with the clusters slider!

Choose a yarn, type of stitch, and direction of work. You can also enter your own colors and magic stitch counts below, or press "r" for random colors and numbers.

Yarn Samples

Stitch Type

Work Direction

Try out different values for the Clusters until you find a design you want. This is the fun part! You can also use the right/left arrow keys to change this clusters number.

Clusters =

While you're working you can use the Focus button to double-check the colors in your current row. You can also use the up/down arrow keys to change this row number.

Focus Row =

b = toggle borders
c = cycle starting color
s = download screenshot of image
p = download written crochet pattern



Figure 5 Screenshot of tool showing knitting design at 103 stitches wide

103 stitches would be needed to show the plaid to good effect (see Figure 5). I felt that was going to be a lot of knitting just to make a sample so I needed a more yarn-hungry stitch.

Crochet Color Pooling

Just want to see pretty patterns?
Press "r" for random colors, then "t" to shuffle those colors.
Then play with the clusters slider!

Choose a yarn, type of stitch, and direction of work. You can also enter your own colors and magic stitch counts below, or press "r" for random colors and numbers.

Yarn Samples

Stitch Type

Work Direction

Try out different values for the Clusters until you find a design you want. This is the fun part! You can also use the right/left arrow keys to change this clusters number.

Clusters =

While you're working you can use the Focus button to double-check the colors in your current row. You can also use the up/down arrow keys to change this row number.

Focus Row =

b = toggle borders
 c = cycle starting color
 s = download screenshot of image
 p = download written crochet pattern

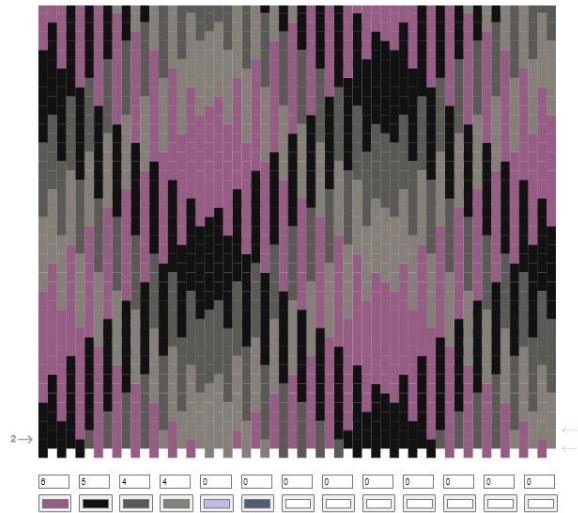


Figure 6 Screenshot of tool showing crochet design at 28 stitches wide

Swapping to crochet with a 4.5mm hook and moss stitch I got 5 dark grey, 4 pale grey, 4 purple and 6 black. A width of 28 stitches created enough of the design to know it is plaid and not an X (see Figure 6).

So by swapping to a stitch that uses up more yarn, I reduced the stitches per colour. This in turn shrank the number of stitches needed to complete each X of the plaid and thus produced more of the plaid design on a smaller finished article.

Note how the design shows horizontal lines in the knitting example and vertical lines in the crochet. This is exactly how your work will turn out.

Once you have reached this point there are a few extra useful things that the tool can do to refine your design and make work easier.

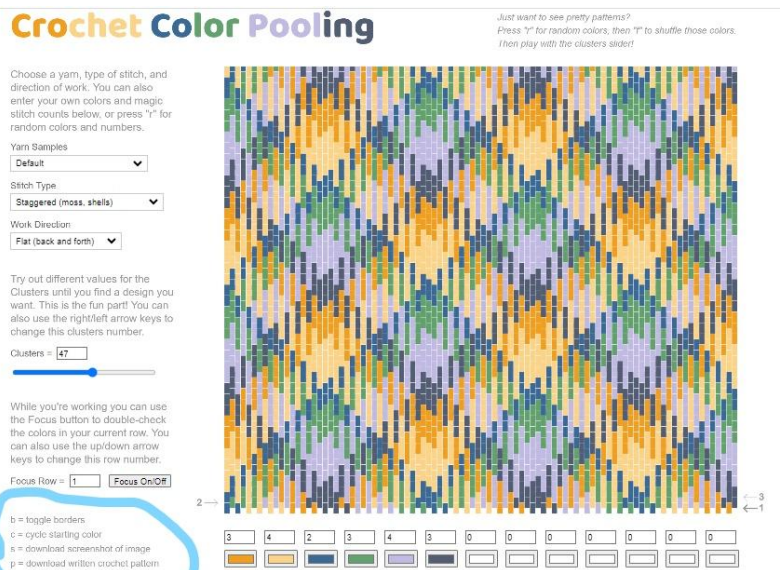


Figure 7 Screenshot of tool showing letters that provide additional features

There are four letters at the lower left of the screen (see Figure 7).

To use these press the appropriate letter on the keyboard and, for D and P open the file which is created automatically

B - toggle borders. This removes the outline around each stitch so you can see the actual design as it would really be.

C - cycle starting colour - enables you to see how the design would look depending on which element of the colour sequence you begin with. The end result can look very different if you begin the work at a different point in the colour sequence! Note the start point is bottom right of the design where there is a little arrow and the number 1.

D - download screen shot of image - very useful to have an image to double check that you have been correctly counting each colour and your work is still on course to creating a sharp plaid. Note that the row numbers are the small numbers and arrows on either side at the bottom of the design, just above the colour/stitch boxes. Press 'D' on the keyboard and a file is automatically generated. Open and save or print as appropriate.

P - download written crochet pattern - may be useful if using moss stitch. Press 'P' on the keyboard and a file is automatically generated. Open it and if it looks useful for your project, save or print it.

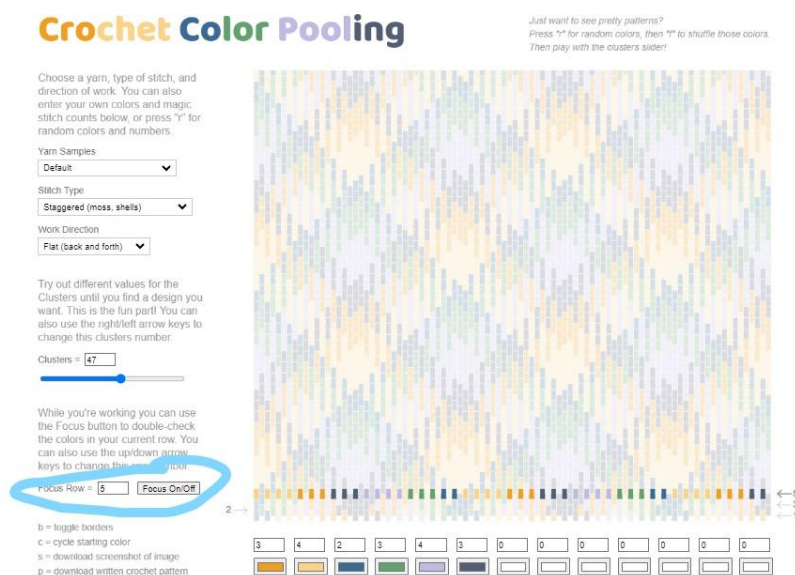


Figure 8 Screenshot of tool showing row highlight feature with row 5 highlighted

A final, useful feature on the tool is the ability to highlight a row. To do this insert the row number in the box circled in Figure 8. That one row will remain visible and the others will become faded.

Armed with a yarn that will pool, a suitable stitch, the number of stitches per element in the colour sequence, the width of the project - and a pattern

should you need to check progress - you can now begin to stitch your bespoke plaid pattern.

I hope you have found these instructions clear enough to feel confident to have a go at planned pooling. It does take some time to get your head around the idea and then some work to find a stitch which will create a design you like. However, I'm sure you will feel that all the preparatory work was well worth it as you begin to transform a simple ball of yarn into a complex looking plaid design. Have fun!