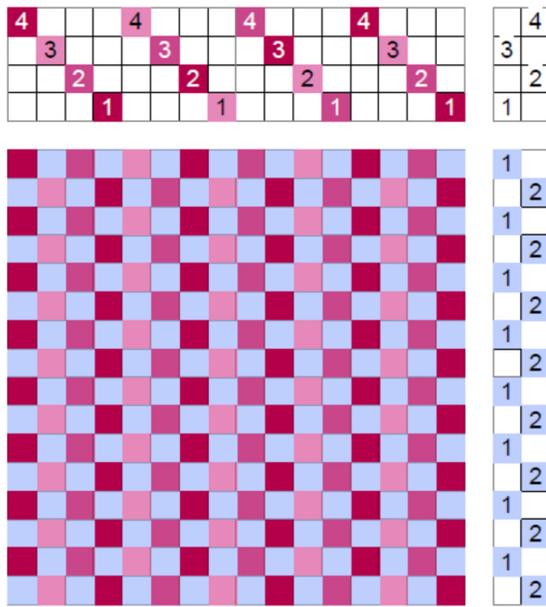


Month # 1: Plain Weave

Plain weave? Yes, plain weave! But I have woven plain weave lots of times. We all have, but there is a lot to explore with plain weave.

Here are some ideas to try:



- A perfect tabby, where the sett in ends per inch (epi) is equal to the picks per inch. Use the same size yarn for warp and weft, vary the color; good time to choose one of the colors that you never or seldom use. Try a variegated warp yarn with a solid weft, or three different yarns in the warp, rotating, as in the draft on the left; or a solid color for warp, with a variegated weft. A 10/2 Tencel® would make a nice scarf.

- A weft-faced rug; use a strong warp, set at 4 or 5 ends to the inch; use a lofty

yarn as weft to cover the warp. Two colors can make stripes; to make horizontal stripes, weave with one color for as long as you wish the stripe to be, then switch to the other color. To make vertical stripes, alternate the two colors.

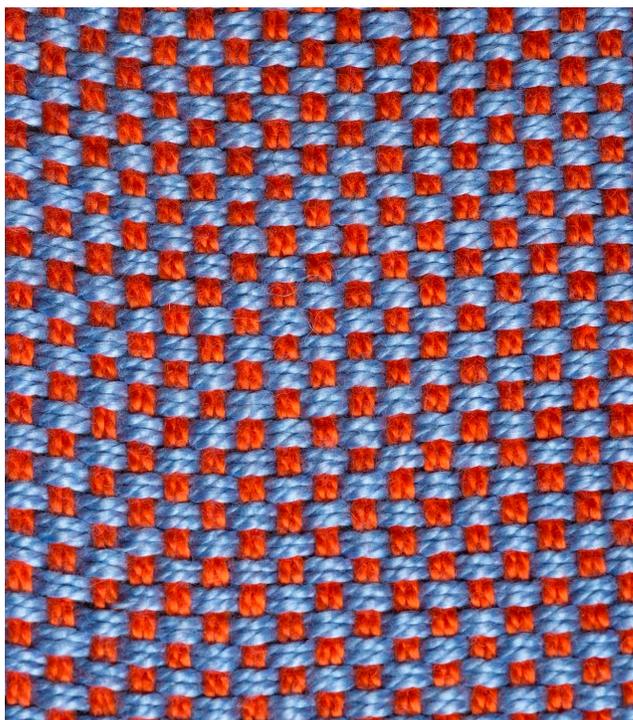
- A warp-faced fabric can make a sturdy table runner which can double as a hot pad for your dining room table. Use a slick yarn, mercerized cotton for example; set the warp twice the wraps per inch for that yarn, that is, four times the plain weave sett for the yarn, since we want to cover each side of the fabric. Use a fat weft, which will only show at the edges.
- From these two extremes to the middle, there are fabrics that can show more or less of the warp and weft. A rag rug, for example, will show more of the weft.

Here is the continuum of fabrics possible with plain weave:

| Weft-faced | Weft-dominant | Tabby | Warp-dominant | Warp-faced |
|---|---|---|--|---|
|  |  |  |  |  |

You have already tried all of those options? Here are some plain weave derivatives:

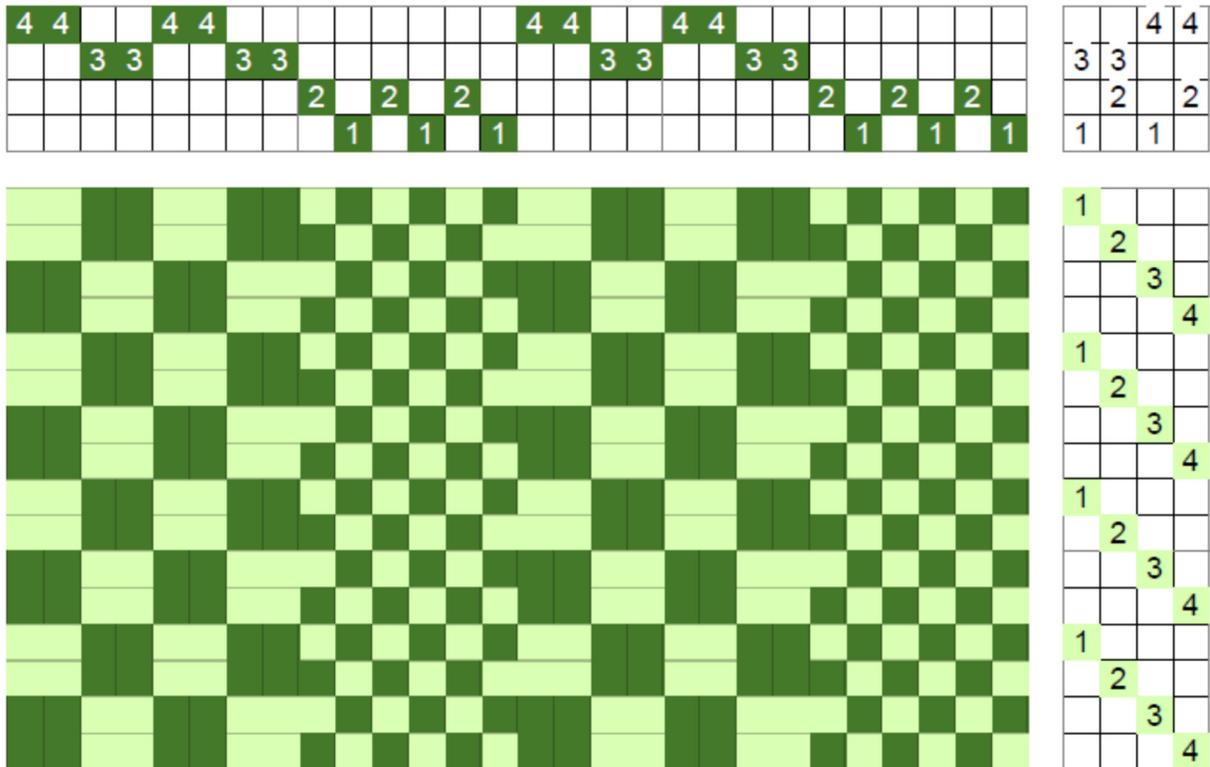
- We form ribs in the warp by doubling up (or even more) the warp in some places but not others. When threading, use a heddle for each thread, even when they are in the same shaft; it will avoid tangles.
- Instead of doubling the warp, make ribs by using larger threads; in sleying the warp, use a more widely spaced reed and change the sett. For example, if the ground yarn needed a sett of 24 epi, use a yarn that requires a sett of 12 epi for the rib; then use a 12 epi reed, double



the ground warp and dent the larger yarn singly.

- You could use the same techniques – doubling or using fatter yarn – to make weft ribs. In doubling the weft, the second shot will come out, so we have to use floating selvages (threads not threaded, but sleyed) or a double-bobbin shuttle.
- In basket weave, shown on the left, we double both warp and weft. In weaving, as in weft ribs, we have to use either floating selvages, or a double-bobbin shuttle.

- We can combine areas of plain weave and basket weave, as shown in the drawdown below; in doing so, remember that the floats in the plain weave are over one thread, in basket weave they are over two; you may need to adjust the sett; also, the take up on the plain weave will be different than that of the basket weave, the two sections may have to be tensioned separately.



Still nothing new for you here? Plain weave is a good place to explore the fiber options that you may not have used or not used a lot; or make items that you generally don't make; or try colors that you usually don't use, as we already mentioned for tabby:

- Linen makes wonderful household textiles; for example, napkins with smaller yarns, table mats with larger yarns, or even a tablecloth; if you tend to make narrower warps, this is a good time to increase the width (if the loom allows).

- In warmer climates, our first weaving project is usually cotton; if you haven't woven with cotton, try unmercerized cotton towels which are very absorbent; try warp stripes, weft stripes or both.
- In colder climates, wool is the yarn of choice for a first project; if you haven't woven with wool, a lofty wool blanket is great for a chilly evening; if the loom is narrow, make two panels and sew them together, using the weft yarn for sewing thread.
- We tend to think of silk with twills or satins, but it's so fluid that it will have good drape even in plain weave; make a nice scarf to wear.



- Tencel[®], bamboo, hemp, milk, soy, sea-cell, there is a world of fibers out there; try them all!
- If you are a spinner, it's time to try your handspun in the *warp* and in the weft. With the maximum number of intersections, plain weave is a good place to start, giving your handspun the maximum support.
- Try a textured yarn in the warp; the shawl on the left is woven with silk boucle for warp and weft. Use a wide reed so yarns won't fray and when advancing the warp, do it slowly and cautiously, making sure that no loops or thick parts of the warp get caught in the heddles.

These ideas should get you started!

More Ideas for Month 1

I like to divide exploring plain weave into three areas with some overlap, of course.

The first is the range from weft-faced to warp-faced described in *The Wonder Year Month 1 handout*. There is also the other side of the coin: choose a weft that is of different size of the warp and adjust the warp sett accordingly: fatter weft, open up the sett, thinner weft, sett the warp more closely. With the weft-faced option, there is also tapestry, which classically is described as a weft-faced plain weave with discontinuous wefts.

The second area of exploration is the plain weave derivatives. Ribs and basket weave are discussed in *The Wonder Year*, including combining basket weave with plain weave, but how about a basket weave with different number of threads? A **Common Basket Weave** has the same number of threads for warp and weft, for example 2 as shown in *The Wonder Year*. A **Fancy Basket Weave** is a combination of common basket weave, for example a 2-thread basket weave and a 3-thread basket weave.

The final area to explore is color. There are two different areas that we can investigate: stripes and plaids, the first; you may have woven stripes using the Fibonacci series; try the “Gene Davis” way. Gene Davis of the Washington School of Color made art works from stripes, incredible stripes. When interviewed as to how he planned those stripes, he answered that he didn’t plan more than three stripes ahead, and sometimes he changed his mind about those; he just used whatever colors he had on hand. His intuition is remarkable, but you may be surprised how good your intuition can be if you just forget “rules”. For plaids, offset the squares the way that Scottish tartans are woven.

And finally, nothing does better optical blending than plain weave because of its maximum intersections and a float of one. Think Pointillism. Neurophysiologists tell us that our brain first sees the shape of an object, then fills in the color (see attached *How We See Color: Definitions*). If the object does not have good resolution the brain cannot place the color in a specific shape and it blends. The thinner the thread, the better the optical blending. The further away from the fabric, the more the optical blending. Optical blending is good if you are planning for it – blue and red make a great purple. But not good when using opponent colors (see attached *Opponent Color Wheel*): blue and yellow make grey.

Lots to explore!