The SpaceCadet’s Quick Guide to How to Read Your Hand-Dyed Yarn’s Colour Repeats

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Whenever we go to a trunk show or a yarn festival, I get asked one set of questions in particular: *how will this yarn behave? will it pool? what will it look like?* And I’m always glad to delve into that, because finding the answer is so much fun!

The First Step: **Open Up That Skein!**

There are several clues in your skein that will give you a good idea how it will behave, but there is one necessary, first step that I find many of our customers are reluctant to take. They turn a skein over and over in their hands and try to decide what it will look like as they knit or crochet it up. But the real way to understand a skein is to untwist it and open it right up!

Did you pause for a moment when you read that? Don’t worry – most people do. I know how our yarns look in our love-ly displays – piles of colourful skeins arranged just so – and you don’t want to mess them up. But the truth is that, while you can usually look at a commercial yarn all twisted up and get an idea of how it will behave, a hand-dyed yarn is completely different and you really have to get in there and look at it closely. When yarn mills or really large dye houses create yarns, they usually blend the colours before they spin them, so any irregularities in colour get evened out, and what you see on the outside of a skein is very similar to what’s happening on the inside, meaning that you can understand the yarn without untwisting it.
But with hand-dyed yarn, the colour is added after the skein is spun, and so the colour can be very irregular – whether by design, as part of the dyer’s technique, or simply because of how the colour distributes itself in the dye-bath. Once that dye adheres to the yarn, there’s little can be done to change or even it out. Depending on how the yarn is dyed, the colour may or may not stay the same across the whole skein – meaning what you see when you hold it twisted up might be very different from what it actually looks like when you open it out.

And so the first step to understanding how a colourway will behave when start to work with it is to untwist it and open it right up. Now I definitely don’t speak for all dyers or yarn companies when I say that (and it’s a good idea to ask before you untwist a skein), but I can tell you that, at SpaceCadet, we never mind if you untwist our skeins. In fact, we use tags instead of ball bands specifically so you can do that, because I truly believe you can’t fully understand a colourway – particularly a variegated or one-of-a-kind – until you look at the whole thing.

(If you then twist it up again before you put it back, we’re always grateful but, if you don’t know how, just hand it to one of use and we’ll be glad to put it back together for you. Or to teach you, if you like! It’s dead easy and we do it all the time.)

But for now, go grab some hand-dyed skeins out of your stash – particularly if there are some variegateds that you have never untwisted – and have a good
look at them. Observe how they look in their twist... and then gently open them and see what you find. Does the inside hold any surprises? Is it different from the outside? Or have shades you didn’t expect? Twist it back up again – perhaps starting from a different point and see how that affects the colourway.

So now, with that first step taken, what are you looking for? What’s the magic inside the skein that will tell you how the colourway will behave? There are several things to look for and I’m going to cover the most important: the length of the colour repeats.

What are Colour Repeats?

Because hand-dyed yarn is usually dyed in the skein with the yarn looping around in circle, the colour we apply to each area of the skein hits all (or at least several) of the strands at that point in the circle. When you are knitting or crocheting with it, the colours will repeat as you work your way around the circle again and again. Each change of colour is referred to as a colour repeat, and it's the length of these repeats that are so important to understanding how a hand-dyed colourway will behave.

**Bonus info:** the exception to this is single-skein gradients. These are dyed using a different technique that makes the colour change slowly from one end of the skein to another. So while the colours don’t repeat the way they do in most hand-dyed yarns, the colour changes are still referred to as colour repeats.

What about Semi-Solid Colourways?

For the most part, colour repeats apply to variegated and tonal yarns more than semi-solids, because they contain multiple colours that play off each other. But where this does apply to semi-solid skeins is in the variation of the depth of shade – the yarn will have taken the colour more intensely in some sections of the loop than in others. Think of those as colour repeats and you’ll get a better understanding of your semi-solid too.
There are several types of colour repeats that you’re looking for: long repeats, short repeats, and pops of colour. So open up your skein of hand-dyed yarn, lay it out so you can view the whole loop, and let’s see what we’ve got!

## Long Repeats

There’s no objective measure of what qualifies as a long repeat, but I’d say **anything that is a third of the loop or longer** counts. Long repeats often stretch to one whole side of the skein (so, covering half the yarn) or sometimes even as much as three-quarters or more. A skein can have a single long repeat of just one colour, or it may have several colours that each are long repeats, and those can also be intermixed with short repeats as well. Take a look at this skein in our colourway “Flow”. Though it has some shorter splotches of colour, the underlying green section is a very long repeat – stretching to well over half the skein.

![Long Colour Repeats](image)

Notice that the green section stretches to well over half the skein. This is a long colour repeat.

Colourway: Flow

The longer the repeat, the more it will stretch out in your knitting, forming a long line of colour. Depending on the diameter of the item you’re making, that could begin to look like stripes, either where the colour stacks row on row, or
where it pools more on one side than the other. This shrug below is a great example.

But here’s something interesting – do you see how the “striping” seems to disappear in the lace panel running down the center? Where plain stitches like stockinette allow longer repeats to stretch out, patterns that contain more complicated stitches such as yarn overs and slipped stitches break up those longer colours and can help to even them out.

Crochet does very different things with variegated yarns and their colour repeats, because crochet moves the yarn both vertically as well as horizontally. So it won’t necessarily stretch the colour out the way knitting can but, regardless, the longer the repeat, the larger that section of colour will be within the stitch pattern.
Short Repeats

Again, there’s no one measure of what qualifies as a short repeat, but I’d call any colour section that stretches for less than a quarter of a skein’s loop as a short repeat. Sometimes those smaller sections appear evenly across the whole skein.

In this colourway, the short colour repeats are evenly distributed across the skein.

The green section in this colourway is a good example of a typical short colour repeat.
skein, as in our colourway “Blood Moon”, and sometimes they appear only here and there, like the green in “Vortex”. Sometimes they blend gently into the next colour, and sometimes they have clearer edges.

But regardless of how they’re laid out, colour in a short repeat is not going to last long across your stitches before it switches again to the next colour. When those changes happen evenly or frequently, the resulting fabric often comes out with watercolour-y effect. When it happens just a few times in a skein, the result can be either pops of a contrasting colour or, as with the orange section of our colourway “Headstrong”, a heathered effect.

Pops of Colour

When you have really little sections of colour in a skein, these are what I think of as “pops”. In truth, they’re just short colour repeats like the ones above, but they’re much much smaller, meaning the colour won’t last more than a few stitches when you work it up. Whether they’re in a contrasting colour or a co-ordinating shade, the effect can be spectacular.
Turn back to the picture of our colourway “Vortex” and check out the little sections of magenta – those are a great example of a pop of colour. Or look at the quick splashes of black in “Tantrum” below. **Colour pops like these can make your stitches super-interesting and your final project really eye-catching.**

![Image of a Skein of Yarn]

*These little pops of black are designed to bring added interest to your stitches ... and your finished project.*

 Colourway: Tantrum
spacecadetyn.com

On Your Way To **Reading Your Skein!**

**Now it’s your turn!** Go grab a skein from your stash, open it up, and look at the repeats. Does it have a few predominant shades that span most of the skein? Or are there lots of short bursts of colour? Do you see little pops? Being able to look at your skein and identify the colour repeats is such a help to understanding how the colourway will work in your knitting and crocheting! Whether they a long repeats, short repeats, pops of colour, or a combination of all three, each hand-dyed skein is unique and the only way to understand it is... to open it up and see what you’ve got!
Ready for More?

At SpaceCadet, we passionately believe that knitting and crocheting makes people happier – deep down inside – and nothing does that more than working with gorgeous, vibrant yarn. For us, dyeing is a cosmic adventure – a wonderful process of mixing each colour by hand and seeing where it takes us. The result is yarn that is as exciting for you as it is for us. So come and check out our full range of yarns and colourways!

Where to find SpaceCadet®

You can find SpaceCadet® yarn on our website or at your local yarn store.

And if your local yarn store doesn’t carry us, we’d love it if you’d tell them about us! Or please click here and let us know about them: the name and location of the shop and, if you happen to know, the name of the person we should speak to. Then we’ll get in touch and introduce ourselves to them!

To share this guide

Know someone who’d love this guide? Fantastic! Please send them to https://spacecadetyarn.com/free-resources, where they can download this guide plus a whole bunch of other great free resources!
Stephanie Alford
Head SpaceCadet at SpaceCadet yarn

Why SpaceCadet? When I was a kid and I’d do something dumb (the way kids do), my dad used to call me “space cadet”. It was always said with love, tinged with exasperation. There was a lot of love in the house while I was growing up, but I also did a lot of dumb things. Eventually the nickname started to stick, and I began to feel like I really was a space cadet. Sometimes I still do.

So I decided a long time ago that when I finally broke out of the mould of ordinary work to do something creative – something I wanted to be proud of – I was going to name my project “SpaceCadet”. I would baptise that nickname with a whole new meaning.

I love what I do. I love creating colours, creating yarns, and giving my customers something beautiful to feed their creative juices. And so I can say, at last, that I am truly proud to be the SpaceCadet.

Stephanie has been fascinated by fiber ever since she first took spinning lessons at the age of 11. She taught herself to knit at 19, went back to spinning (and actually got the hang of it) ten years later and, along the way, picked up a bit of experience in weaving, a smidge of crochet, and a degree in Textiles and Clothing. But it was when she began dyeing that she felt she’d really found her calling. She has lived half her life in the US and the other half in the UK, which explains her spelling.

She lives in Pittsburgh, PA, with her husband and two daughters. She’s SpaceCadetCreates on Ravelry, @SpaceCadetYarn on Instagram, and you can contact her here.