# blending colour 

TiberySoodness Fiber Prep Unit 1

## Self Guided Study and DIY blending

 report sheets forexperimentation and sample recording, with notes per tool type and blending tips.

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Notes

## Introduction

Combining colours, experimenting with tones, shades, warm and cool, dark and light, letting the colours trigger your inspiration, there are myriad discoveries to be made when blending colour and fibre, and you are the wizard who creates the magic. In your hands, simple red yellow and blue become infinite shades of teals, emeralds, lavenders and amethyst, fiery orange, and earthy browns as you create your own marvellous recipes and mixes.

Colour blending. The art of combining certain colours to alter them, it seems simple. It IS simple! This course is designed to take you through some of the techniques and basics of blending two or more colours of dyed fibers together to either lighten (tint) or darken (shade), or to alter the colour to create an entirely new one. By the end of the course you should have a solid understanding of colour blending using at least one kind of blending tool, be able to alter the shade and tone of a colour and create new colours by blending two or more base colours. You will also have begun your own record log or 'recipe book' for creating the colours you want.

You might ask yourself, why go to all the trouble of blending fibers when I can just dye the shade I want? I think there are several reasons, the first of which is that blended colours are an 'optical' mix of all the individual colours you add into the blend. These separate colours still remain separate in your blend, and when you look closely you will see them, even when the overall colour looks homogenous. This combination of individually coloured fibers, mixed together to create the illusion of a third colour, brings a level of depth and richness to your fiber that simply cannot be achieved with dyeing, a process that literally changes the colour of each fiber to match the ones around it. With colour blending we can create stunning heathery effects, rich tones and shades, complex colour that is both sublte and beautiful. We can also add in sparkles and 'bling' as we blend. I am often transported to magical fiber fairy land as I watch the results develop during the blending process.

Another reason to blend is that you can, in fact, make an entire rainbow of colours from just the three primaries, red, yellow, and blue, the three colours you have in your FiberyGoodness Blending Kit. Through this course you will practice blending these to create different colours and alter them to fit a chosen pallet, recording your results and creating your own colour 'recipies' that you can come back to and replicate again and again. You will also learn about the different tools you can use to prepare your fibers, and the different results you will achieve with them.

## To complete this course you will need:

- The supplied fiber kit (Merino in red, yellow, and blue, plus black and white)
- A set of paints in at least the primary colours red yellow and blue, plus black and white
- Watercolour paper
- Extra record sheets (you can print these from the book or make your own)
- At least one kind of blending tool such as:
combs, drum carder, hand cards, flick carder, blending board, or hackle.
- A diz
- A folder or binder to keep your course materials in.


## how to build your record log

Choose the kind of folder or binder you want to use, remember that your pages will bulk out as you add your samples so allow plenty of room for that. The pages are set up at A4 size ( $8.3 \times 11.7$ inches ). You can resize to print smaller, as I did in the image below (A5) but if you want plenty of room for the course notes and samples stick with the A4!

You can choose which pages you want to print, and some you might like to print extra's of, for example the 'NOTES' page can be added to each section, so print out enough for however many sections you will add to your record log. You might also like to print out extra of the 'own blend’ pages. You should be able to select which page to print out with your printer software, and adjust the number of each that you want printed.

You can also add your own photo to the cover of your journal, or print out the first page onto glossy photo paper for the cover.


You might like to do what I did with the pages, I printed the information and blending tips for the front of the book, directly onto heavy white craft paper, you can embellish them with collage, glue fibre, or leave them plain. Then I printed the sample blend pages onto card, choose a colour card that is neutral and won't influence the colour samples you will add to them later.

For each sample that I blended, I stapled a representative sample of it onto the card on the blending notes page, listing the 'recipe' I used to achieve that result , and also spun a sample to attach so I can later see how the finished yarn would look. Once samples were attached I glued the sheet onto the craft paper so my staples wouldn't catch on the next page of fibery goodness.

## Colour Blending - why keep a log?



This is what this course is all about, making and recording your own colour blended dreams, using all the tools you have (or have yet to find) and turning ordinary fibres into the most beautiful blends you can imagine. The idea is to take some colours, experiment with them, mix and match, trial and error, but keeping your log and recording your achievements.

Once you have created this record of your experiments, you will have made your own fantastic sample resource, complete with your own colour 'recipes' so you can re-make your favourite fibers again and again. I hope you will keep coming back to this log for inspiration, ideas, and to repeat that special colour you mixed up, by checking your recipe of quantities colours and percentages.

This is very useful, especially in those instances when that special colour was created with a touch of ' $X$ ', that amazing third (or fourth) colour that is not separately visible in the mix but is vital to the specific tone that you achieved. And yes, it is easy to forget! I don't know how many times I have made up a blend and thought 'that was so easy, I know I will remember what I used' and then of course, later, impossible to replicate.. That is why I have created this logbook, as a single place to record all the blends I make and like, and I hope you will enjoy collecting your own exciting range of blends too.


## RFCORD KFFPING - making your own recipes

There are two approaches to this, and it's likely that one will speak to you more than the other, both approaches are fine, so go with the one that you prefer.


The first approach is perhaps a bit more scientific, using scales to weigh your fibres and calculating percentages for your recipe. Start out with a two colour 'control' blend, $50 \%$ of one colour and $50 \%$ of the other. Once you have this blend, and have taken a sample, its time to start some variations, try two 70-30\% mixes swapping the dominant colour in each, record your results and include your sample in the record log. Vary these combinations and percentages as much as you like, add in a third or fourth colour to the mix and try out different combinations such as 40-20-20-20 or 70-10-10-10. Swap colours around to change the dominant colour in the blends and see what happens.

This approach gives you a logical way of methodically working your way through multiple combinations and mixes and keeping a repeatable record of them. If this seems too technical however, and you prefer a more freeform, less measured way, you can still do that and keep the kind of record that will allow you to fairly accurately repeat your blends later, or even from one comb full to the next.

The second approach is to 'eyeball' your fibres, using a system that works for you, to measure your quantities. So for a 50/50 split you would simply do that, split your fibres approximately in half. You can also use measures that you are used to using, a 'handful' or a 'fingers length' or a
quarter comb full. Whatever works for you and is approximately repeatable. Then what you are recording is proportions rather than percentages, so for example, if you want to make lilac, you might take three handfuls of blue, two handfuls of red (or pink) and a half handful of green, or orange. Then you blend them together and decide if you are close to the colour you wanted. You can add more half or full handfuls, or even a 'pinch', (remember your mums baking recipes like that?) just keep a record of what you add into the mix until you achieve the look you want.

With either system, also record how many times you have blended and re-blended (as in, run the fiber back through your equipment multiple times to inrease the blending), and which equipment you have used to get the result in your sample. It won't be long and you will be building your own comprehensive colour library!

A third alternative is less to do with 'blending' and more to do with creating colour effects in your fibre, these are the recipes that call for different placements of colour on your combs, hackle, board, or drum carder, to create specific patterns and combinations of colour. These will be explained inside each following 'tool' section, but the result is that you can create colour graduations, stripes, and blocks of alternating colours by changing the way you load your fibres onto whichever tool you have chosen. In this case, there is less 'blending' to do, as the goal is simply to combine the fibres in the order you want them rather than mixing them together into a new colour or shade.

It is still really useful however, to keep a record of your experimenting, so next time you want to create that same kind of effect (or variations of) you can refer back to your log and see what you did, how you did it, and see the resulting fibre and even a sample of the yarn you make with it.

Also, a photograph of the placement of your colours is a very useful addition to your records, so you can easily see if you layered your colours, striped them, or started blending with large blocks of colour. This can effect the result you get depending on how many passes or quantity of blending you carry out.


## blending methods overview

This is a quick look at the tools and equipment used for fiber blending and discussed in this course. If you dont have all of these available to you, you can still do the course, using any one of these tools, or even just your hands! This course may even help guide your future tool purchases! Further through the book there is a more comprehensive look at each tool, and guides for how to use them.

There are a number of different ways to blend colours in fibre, and each one yields a different result, so choosing the way you blend is really important to the final yarn you will spin from your fibres. You can comb, card (hand card or drum card) use a blending board, or blend your colours on a hackle, you can also 'pick' with a 'picker' or also by hand, mixing your fibres and colours without needing any special equipment at all. What follows is a brief overview, which will be continued in more detail later with a section on each method, including tips and blending ideas.

Combing is one of my favourite methods of blending, there is something magical about watching the different colours combine and mix, and you have total control over how much or how little you allow them to blend. Combing will generally give you a fairly even colour blend, with no clumping of colours and each addition to the mix melded through to make a wonderful whole. Adding in a 'surprise' colour is fun because you can change the tone easily, for example, adding a neon yellow to a blue green mix will lighten and brighten, even after the actual neon has 'disappeared' into the mix. Combing to blend colours, to me, creates a magical fairy mix and the results are beautiful, you can also add in your favourite sparkles and get those evenly dispersed through the colour as well, very satisfying!

Drum carding allows for many different effects, you can make your own graduated batts to spin a wonderful graduated yarn from, you can make stripes, and you can layer colours to make a crazy mix of barber pole effects in the yarn you spin from it. You can also create more homogeneous blends by sending the batt through the carder several times. Co-lour-wise this can be similar to the effect you can get using hand combs, but the preparation will be fluffier, more 'woollen' and lofty with the fibres carded, compared to the smoother, more organised combed preparation, so the yarns you can spin from these preparations will be slightly different.


One advantage of using a drum carder is the quantity of fibre you can produce in one go, you will get an entire batt of this single blended batch, and reduce the risk of inconsistencies that are possible when making smaller amounts of colour with combs or hand cards. Each time you need to reload the fibre onto these smaller tools there is a chance you will not get the exact same proportion of colours and the result can be slightly different each time. This risk can be reduced by weighing your fibres and following your recipe, and you also might like the effect of lots of smaller batches of slightly differing shades, its just something to keep in mind when you are choosing your tool for the job.

A blending board is sometimes seen simply as an alternative to a drum carder, however you can get very different effects when blending on a board, you have complete control over colour placement, and the fibres do not get mixed up together nearly so much as when putting them through a drum carder. Rather than using the blending board to mix up colours and blend them together, its best use is to combine them in specific ways, generally keeping each colour separate with minimal blending, its more like

painting than blending. Painting colours randomly onto a blending board and then turning the result into rolags, can produce a yarn that I think of as 'mosaic-like', with many small splashes of lots of different areas of colour, when that is also plied on itself it can make a very pretty effect.

Using a hackle to make roving is one of my greatest fibre pleasures, and during workshops and demo's, this kind of colour blending never fails to be met with excited comments and oohs and aahs. There are a number of different ways to blend colours on the hackle, each creating a different effect in the roving dizzed from it, and the subsequent yarn it makes. Its also a great way to add in sparkle and effect fibres such as silks and angelina. The roving prepared from the hackle is generally a smooth roving, more like the combed preparations, and suitable for all kinds of spinning, I especially like to corespin it to make the most of the colour effects.


## Choosing Colours for Blending

For some people, colour choices are instinctive, just 'knowing' these are the colours you want to put together is often enough. Experience with colours can also be important, and your 'knowing' might come from years of playing around and learning about shades, tones, what goes together and what doesn't. Also, what is pleasing to some may be discordant to another, personal taste is an individual thing and we are all different in what we like.

So here, I would like to say 'anything goes' when it comes to colour blending with fibre, and it pretty much does, however there are a few things that I think make a good exercise as you start thinking about colours to blend, starting with exploring the ones you are naturally drawn to and what it is in those that pleases you, then expanding this by finding new combinations, and finally, thinking about 'why' you want to make a blend.


## EXERCISE 1. Collecting Colours

In order to become a better colour sleuth, to be able to look at a colour and 'know' which colours were used to create it and how you can re-create it, its important to spend some time really looking at colour, categorising it, and identifying the shades that work together. Start a journal or a notebook and begin collecting 'pallets', images that contain colours that interest you, that make you jump up and down, that confuse you, or that simply make you go 'wow'. Cut and glue your images into the pages as collages or individual images. You can also make this a digital notebook, a Pinterest board, or even a folder on your hard drive to collect your individual images in.

Then look at things you have created already, yarns you have spun, knitting, weavings.. what colour 'themes' do you see? Are there particular colours and colour combinations you keep returning to? Add these into a 'go to' pallet section in your notebook. These are your comfort zone colours, the ones you have confidence in, and they speak to you in a way you always enjoy. There is no reason to abandon these, we just want to expand them!

Choose some images, from magazines, photographs, old calendars, printed from the internet, or use Pinterest to collect digital ones. Don't look at the content, look only at the colours. Be deliberate in your choices, make sections in your collections, for; 'naturals', 'neons', 'pastels' neutrals, vibrant, cold, etc.. and search for images that fit your categories. You can add other sections too, so long as what you are collecting is in some way different from your 'Go To' section choices. You may well find you surprise yourself as you find new and unusual colour combinations, colours you would never have thought to put together, these are often like totally new discoveries and can be very inspirational!

Now we need to look at how to re-create these pallets in our blending, taking colours from your chosen images and making them in fiber, blending to create the same shades and tones. Some useful resources, at least for picking colours from digital images, can be found online, for example Adobe Kuler (https://kuler.adobe.com/create/color-wheel/) where you can upload or link to a picture and use a colour picker to select areas from it to create a pallet.

Next we will explore how to alter base colours to match your pallets, first by altering the 'tone', lightening and deepening the colours, and then we will look at mixing entirely new colours from our primary coloured fibers in your kit.


## REASONS TO BL巴ND: ALtering tones and shades

This is a good time to think about your goals. You may be wanting to replicate that specific colourway, and without re-dyeing your fiber. Sometimes it is just more logical to blend from solid colour fibers to create a colour you want. Also the effect of blending fibers on the colour is quite different from solid, or even multicoloured dye batches, as blended fibers still contain all the individual fibers originally used, just mixed up together to create something new, but still essentially those original colours. This forms a subtle blend that contains a level of richness and depth that is somehow quite different from a block of fibers all dyed the same colour.

Perhaps you have a roving that you dyed and then were disappointed in the result. Blending it with another colour (or two or three) is a great way to save it! Or maybe you want to tone a bright colour down and a dull one up! You can add a darker shade of the same colour, or black or grey, to tone it down, or add some white, or a lighter shade to brighten it up.


In the case of 'secondary colours' (those mixed from the primary colours red yellow and blue), you can also alter them by adding one of the 'base' colours, for example, if you want to lighten and soften a dark green, so you could add some pale yellow into the mix to do that, or to darken it, some blue. If you wanted to make it more earthy and olive looking, you need a 'third' colour, add in a little orange or red. Once blended through, these additional colours will almost disappear, but will clearly alter the shade of your original. This is well worth experimenting with, and I suggest using the record cards in this booklet to make notes and keep samples of your blending experiments.

But first, read through the following tutorial and then we will try some blending with the fibers you recieved in your kit.

## Tutorial - Lighten and Darken Colours

What follows is a short tutorial showing how to lighten a colour. I have used hand combs for this, but you can also get a similar effect with a drum carder, just keep in mind that combed fibers will give you a smoother yarn than carded fibers which create a loftier yarn. You can also blend with your hands by opening up and mixing in the fibers with your fingers to create a 'cloud' to spin from, this will give you a loftier, less smooth yarn than a combed preparation, and the blending might not be as even as you can achieve with multiple passes through a drum carder or combs, but if you blend small quantities at a time you can get a good mix.

I started out with a range of blues, light to dark, some light purple and some undyed white. It is all commercial roving (Merino) and a handful of dyed Alpaca locks. I wanted to soften and warm the dark blue of the Alpaca. These are the steps I took to alter the colour.
l. I lashed my dark blue base colour onto the comb first. (refer to the chapter on combing to learn about using hand combs)
2. I added a thin layer of pale blue and combed that into the dark blue in this tutorial I am showing you the colours lashed on in blocks of colour, so you can also see the proportions I used. To speed up your own blending you can pre-select your quantities and then add them in thinner layers before you start combing or blending
3. To lighten this I added a thick layer of white and combed with two passes.
4.. To warm the final colour I then added a layer of purple and combed that through until it was well blended.

You can do this same mix on the drum carder, just increase your overall quantities. This blend ended up at about $50 \%$ base blue, $40 \%$ white, $5 \%$ pale blue, and $15 \%$ purple

See page 3 for information about measuring your proportions.


The previous image shows each colour being added into the mix, with two comb transfers/passes between each addition. You can see in the second image that I added approximately $40 \%$ white, this is because I wanted to make it much paler than the original and balance the colour. To make it just a little lighter I would add half this amount of white, to make it much paler I would add half again, or even double it. Every increase in the amount of white added will increase the effect of it on the base colour.

I added the purple to give the final colour more depth, which I believe is gained whenever you add a third colour, and also to bring some warmth into the blend, purple has red in it, generally a much warmer colour than pure blue. You could also achieve the same effect with a smaller amount of just red, smaller because it is a stronger 'hot' colour than the purple which has already been mixed with blue. Adding red directly to the mix will warm the overall colour but will need to be well blended to avoid the strong contast that solid blocks of it can bring when added to blue.


It is always best to add a bit less rather than a bit more, because you can always add more to a blend, it is much harder to remove too much of an added colour. The only thing to do then would be to add more of the original colour back into the blend, and then you risk ending up with too much on your comb, hackle, or carder.

I liked the blue I had achieved, but wanted some 'bling' so added a layer of white silk. Wanting to keep this more 'obvious' in the blend, and create some white shiny streaks, I put this fibre into the mix last, and only gave it a light blend, once between combs. This makes a lovely streaky roving with the silk running along the length of it in thin shimmers.

It is also possible to achieve this on a drum carder. I would then add the silk directly to the batt by laying it on the tines on the large drum as it turns, allowing the movement of the drum to grab the fibres and pull them onto the batt, forming a streak around the drum on the top layer of fibre. This method will keep the white silk more intact and create the pretty shimmers.

Now to make a darker blue! Again the proportions you add will effect the end result. Adding black to any colour can drastically change the shade very quickly, so best to start off adding smaller amounts and building up the shade slowly.


I started with the base blue colour, filling the comb about a third of the way, In image \#l you can see I added the darker alpaca (about 10\%) to the base blue. Then I blended those together into an even blend with a couple of passes between the hand combs (2). A similar effect can be created on a drum carder (more detailed information on drum carding blends follows in the 'tools' section). Then I added a layer of purple, (3) just like in the previous blend, to add depth and a touch of warmth to the blend. The same could also be achieved with a little red, or even some bright orange.

The three fibers on the left all went into the final blend on the right:


## Exercise ఒ: Blending to change the tone

Now that you have read the tutorial, its time to gather up your fibers, the largest quantity should be of your base colour, the one you want to alter in tone.

If you are using combs, load some onto your comb, likewise with a drum carder, allow a layer to build up on the drum. If you have no tools and are 'finger-picking' this, open up your fibers and make a 'cloud'.

Now try adding in a little of your next colour, blend it together - with combs you might need two passes to really know if this is going to be enough, on the drum carder, add a very thin layer of your new colour to the thicker base colour, remove from the carder, split and re-card (more detailed instructions follow on blending with your drum carder). If you are finger picking, use your fingertips to mix in the fibres and colour.

See page 3 RECORD KEEPING for a blending guide, and refer to the "Tools and Equipment section appropriate to the tool your are using for this excerice, you will find some tips and techniques.

Take a sample, is it enough change? If not, then add some more and re-blend, take another sample and compare it with the last one, is there a big change or is it subtle? Taking note of the percentage (or an approximation of the proportion) of the additional colour added, will help you decide how much more you need to add to get the colour you want. Take notes about quantities used in each sample you create.

If you wanted to soften your dark colour into something dreamier, you could certainly add lots of white to make it paler, then adding an extra colour, such as bright red initially may seem extreme, but if you keep blending it will fade into the mass and warm the colour for you.

If you blend by just making one pass through the drum carder, or one transfer between your hand combs, you might get patches of distinct shades, if you blend more you will get a generally warmer or cooler shade of the original (dominant) colour you started with, so long as you leave that with the greatest proportion of percentage in the mix.

As you blend, note the changes in: warmth (if you add reds, or yellows) and coolness (adding blues), changes in depth, is it lighter or darker? Try adding a more intense shade of the same colour to darken, or a blue or brown instead of a black. If you had a white how much do you need to add to make it noticeably lighter? Can you also lighten it by adding a pale yellow or pale blue? What does that do to your colour?

Glue or staple your samples into this book on your record sheet. Write down the approximate amounts you used of each colour, and add a sample of all the unblended fibers too so that later you can come back and see exactly which colours you used in your blend. As you can see, there is much to experiment with, even when basically keeping the same colour and just altering the tone!

## EXERCISE 3 : Colour play

Before you start making completely new colours from your precious fibre stash, its a good idea to play around with some colours and get familiar with mixing them up to alter shades and create new colours. It is time to take your paintbox and paper and make some sample swatches. Play around with mixing colours to see what happens. Your primary colours are red, yellow, and blue - with this you can create any colour!

Adding white or black will alter the tone of your colour, but also play around with colours
 to tone, what happens when you add a touch of orange to your grass green? What if you mix some lemon yellow into your red, and then add a touch of white? Use your paints to explore how each colour influences the others, these colours will have the same effect when you blend them in fibre too.

Make pages of colour splodges, allow your colours to drip, meld and blend together. Combine colours to see how they might change depending on which flour is next to them. When you have explored with your paints, its time to move on to the fibre! If you want to take this exploration even further you could search online for Colour Wheel information and create your own with your paints.

## Reasons to blend: Making a new colour.

Adding in extra colours, in small amounts, can make colour blending very exciting and rewarding as your fibres seem to magically turn into this won-

derful, complex colour, which has much more subtlety to it than if you had simply chosen a similar dye shade and immersion dyed it. The subtlety comes from the multitude of different coloured fibres working together, a bit like the 'pointillism' technique used by painters to make a cohesive image out of millions of dots of colour.

You can completely alter the colours you have by increasing the proportions that you add into the base colour. If you start out with red and add a small amount of blue, you will darken your red. But if you add an equal amount of blue you will actually end up with purple if you keep blending it till it is well mixed. You can add another dimension here again by including a third colour, see what happens when you thoroughly mix it in, then try adding it on your last or second to last blend and see what your third colour does amongst the others (take samples of each and note at which stage you added the third colour).


In this case, I added some gold Angelina to the purple blend.


The yarn spun from the previous examples of blended fiber, shows all the individual colours used in the blend, giving a rich depth to the overall colour of the yarn. I find that corespinning these blends is a particularly satisfying way of showing all the fibres.

## Summary:

You can alter an original colour to lighten or darken, or to change the tone of it, by using one other colour. To add more depth and uniqueness you can add a third colour, and even a fourth, and this can be guided simply by what you have on hand. Play around with the colours, there are infinite combinations and possibilities, take samples of your blends with notes of which colours you blended to achieve it and in what proportions. Later you can come back to these samples and notes for inspiration and to replicate something you made already and particularly liked. Personally I don't think there are any 'wrong' combinations, it is purely a matter of what you like, so allow yourself to take crazy risks (and if its a small amount of fibre, its not THAT much of a risk anyway) and you will be sure to find new combinations and create colours that you will love.


## Exercise 4: Blending to change the colour:

This is a similar exercise to the one you just completed with altering tones, except this time, the goal is not to make different shades from one colour, but rather, to mix two colours together to create an entirely new colour. Using the dyed fibers from your kit, blend these colours to make a rainbow, or rather, your own fiber colour wheel!

Starting with the three 'primary' colours, red, yellow, and blue, you can make all the colours of the rainbow. These are the secondary colours.Blend some red and yellow to make orange, red and blue for purple, and yellow and blue to create green.


As you blend, work on making your colours with different shades. For example, as you make your green, first make a 50/50 mix, equal proportions of each.


When that is well blended, take your sample, then add about $50 \%$ more yellow to make a yellow green, (a light grass green). Take a sample of this, then add more blue to make a darker leaf green, keep adding the blue until you have a clear distinction between this and the first 50/50 blend. You should find that about 60-70\% blue will make a blue-green.


Collect each sample, your goal is to do this with each blend, so you end up with about three different shades of each colour, one 50/50 and the other two either 'side' of this mid-shade. Create a 'colour wheel' as you build up your collection. The key here is to experiment! Keep records with each sample, noting the colours used to create the sample and (at least approximate) proportions.

Remember to refer to the section relating to your blending equipment later in this book for tips and techniques on their use for blending.

You can staple or use double sided tape to stick your samples into your record book. You may find it useful to slide your sample page into a clear plastic display pocket to add to your folder, this will help keep your samples in good order and prevent them fluffing up and falling off!


## Exercise 5 - Blend to match a pallet

In the previous exercise, you were making new colours by mixing the primary colours into three shades of each secondary colour. Now its time to get more variation into your mix. We will use an inspiration imageto choose a pallet from and then try to replicate that by blending your fibers. You 'could' do the same thing with mixing dyes, or buying premixed colours, but I think it s possible to create a more dynamic and rich colour by blending, plus we get to play with fluff longer!

To create your pallet in fiber, you need to look closely at the colour, what is the 'base' colour you will need? Is it one of the 'primary' colours, red, yellow, or blue? Or one of the secondary colours? Then think about if your base colour needs darkening or lightening, what are the tones you see in there, is it a warm colour or a cool colour? If its a warm colour then adding red based colours will increase the warmth of your base, if its a cooler colour then adding in some blue based colours will cool down your mix. You can easily select a pallet from an image using free online software such as kuler.adobe.com)


Try out your guesses first with your paints, mix the colours you have and see if you can first replicate your pallet on paper. Remember, you are not trying to make an artwork, you are just experimenting with colour. Make a note of which colours you used to make your paint blends.

Then move on to your fibre, see if you can find the colours that worked best on paper and work on replicating those. Add less rather than more at a time, and build up the colour. It is always easy to add more but difficult to take some out of the blend once its in there! It doesnt matter too much which blending tools you are using to make your blends, although if you are using a drum carder you may find you need to card in a narrow strip on the drum to build up enough fiber to see the colour.

## Refer to the following sections on each tool for details instructions on how to blend with each type.

I also often add a third colour even into a simple blend, it can add a special quality and depth to your colour, and when your fibers are all blended together, even though this third colour might look a bit like it has disappeared, it will still influence the overall look of it, and when seen close up adds a wonderful subtlety to the blend as you can see all the individual fibers and colours still separate in there. You are likely to find that in order to replicate your pallet, you will need to add in these third colours to alter your base tone to match your image better. Try some craziness, add in a touch of neon yellow to your blue blend, or a bit of bright orange to a green!


With your pallet reproduction you will probably find you also need to start using either black or white to alter the tone and shade of your colours. You can make them paler and more pastel by adding white, and with black you can darken, just as we did in the earlier tutorial. Start
by adding a little at a time, as black and white are both very strong and only need a small amount to alter a colour. Again, practice your mixes with your paintset first!

## To summarise, the steps I would take for blending to replicate a pre-selected pallet range are:

1. Identify and isolate the colours you want to replicate (either by eye, or using online software such as kuler.adobe.com)
2. Spend some time selecting a suitable base colour for each pallet item, for example, is it red, yellow, or blue based?
3. Choose which additional colours to blend into the base to replicate the selected pallet shade, for example, its an ochre yellow, so I probably want to add either some brown, and a touch of green, or some red and a touch of blue, and maybe some black to tone down the brightness.
4. Mix these colours with paints first to be sure of at least getting close to the desired end result
5. Start blending the fibers, added smaller rather than bigger amounts of the additional colours into the mix
6. Record proportions as I progress. This can be a bit easier if you pre-weigh (for example) 20grams of each colour, start with 20 grams or of your base colour, and add in each of the other colours one at a time. When you have achieved tbe blend you want, you can then reweigh your quantities, if you have lOgrams of red left over, and 10 grams of purple, you know you uaed $50 \%$ base colour and $25 \%$ each of your additional colours (and so on).

Alternatively, refer to page 3 for more informaiton on working out percentages and proportions.


By now you should be able to create different shades of the same colour, darker and lighter, using both black and white, and colour tints. You should also be able to blend two or more fibers together to create new colours, and add effect fibers such as angelina and silk into your blends. We hope you are loving your results and your record log is filling up with awesomeness!

This concludes the exercises and instruction, what follows next is tool specific information to help you blend your colours as you continue your experimentation. (If you have this as the Study Guide Suppliment you will find the rest of the information in your previously purchased Colour Blending Book).

You might not have all the equipment covered in this book but you might find it very interesting to follow the discussion on each type, it may give you a deeper understanding of the different blending methods and the kinds of yarns you can expect to be able to create with them.

We hope you have enjoyed the exercises and found them to be a valuable part of your fiber journey of discovery! We also hope you will continue to grow your colour blending recipe collection with your record keeping and sampling, we are sure this will becomse an exciting collection of colour magic!

## Tools and Equipment

There is quite a variety of tool and equipment that can be used to blend coloured fiber. Eash will give a different result, and provide a preparation suitable for spinning different kinds of yarn, smooth compact worsted yarns or fluffy lofty woollen yarns. Combs and hackles are great for making your smooth preparations and will give you a nice 'top' to spin from, carding equipment makes rolags and batts and a lovely lofty yarn. Your choice of tools is very important to the kind of fiber preparation and yarn you want to create. What follows is a description of each and some tips for use in blending colours!

## Combs



We don't always think of combs immediately when considering colour blending, but it is one of my favourite ways to combine colours, and gives a lovely combed, smooth preparation suitable for spinning a smooth worsted or semi-worsted yarn. Combs also produce an even distribution of colours and sparkle when using speciality add ins. They are very easy to use and suitable for a big range of different fibres.

I like to use mini hand combs, they are not too heavy and easily manipulated, with the ability to hold a useful amount of fibre. For finer fibres, and particularly if blending dyed roving and other combed or carded preparations, I also prefer combs with a double row of tines (double pitch combs), for faster and smoother blending.

When choosing your fibres for combing, its good to remember that your staple lengths need to be about the same in all your fibres, otherwise you will find that the longer fibres are transferred between the combs faster than the shorter ones, and the colours won't blend so evenly. It is also okay to use dyed commercial roving, or locks and undcarded fibres, once you start combing it will all get opened up and blended together just fine.

When you are combing, for any purpose, start by loading up one comb, about halfway (or less) with your fibre. For colour blending you can speed up the

blending by layering your colours onto the comb, in the proportions you think you will need, keep a record of about how much of each colour you are using (either weighing or 'guestimating' by the handful or the 'pinch').

Load the comb by 'lashing' the fibres onto it, holding one end (if you are using uncarded locks this would be the tip end) in your hand, and letting them catch onto the tines. You should end up with most of the fibres facing out from the comb handles and a small amount, about a centimetre or so (quarter inch) behind the tines on the same side as the handle.

Hold the loaded comb in one hand and swipe the empty comb gently through the fibre, starting at the tip end and gradually working your way toward the tines with each 'swipe'. The loaded comb stays in the 'up' position, tines facing upwards, while the 'swiping' comb can be turned and taken through the fibres from either side. As you comb you will see the fibres transferring to the other comb, and you can see them starting to blend as they are transferred. When you have almost all the fibre moved from one comb to the other, you might find there is a small amount

of 'stubborn' fibre that won't move to the other comb, you can help this along by getting the comb about halfway into the fibres and then giving it a bit of a twist, about a quarter turn, to help it grab onto the remaining fibre before you continue swiping it through the rest of the way.

Once you have blended this first phase, you might want to add in something else that you plan to leave less blended in the mix, perhaps you want

some more visible colours, a more heathered effect, or you want to add some sparkle or silk. I like adding the silk on the final combing to keep the shiny fibres together for streaky silk effects in the roving. If you prefer a more subtle blend, then add your extra fibres either right at the start, or on the second pass after the base colours have already blended a little. You can spin right off the comb if you want to!


Your blending is finished when you are happy with the way the colours are mixed. Fibre can be either spun directly from the comb (see the video on YouTube http://youtu.be/MejwJvo5lJ8) or removed with a diz (see later in this chapter for diz instructions).

Another way to blend fibres on the combs is to make a multicoloured roving, using layers and a lot less blending so the colours are kept together rather than mixing in the heathered effect of the multiple blending passes just described.

Making a multicoloured roving is remarkably easy. One effect can be achieved by layering colours horizontally on the

comb. The thicker and fewer the layers on the comb, the thicker they will be in the roving. For a more blended look make the layers thinner and add more of them. If you want distinct stripes, use contrasting colours and alternate them in the layers, for a more subtle look, using similar colours and shades will create a more subtly blended fibre.

Now, rather than re-blending these fibres and transferring them to the other comb, take them off directly with the Diz, you should see your colour segments turning into stripes that run lengthways along the roving. Remember that the smaller diz hole will have the effect of blending the fibres more than the larger hole. It is also important to pick up all the layers of fibre in the diz so that long stripes are ultimately created along the length of the roving.


## hackle



Blending colours on a hackle is quite similar to blending on a set of hand combs, however with the hackle you can fit a lot more fibre into one blending pass, and you can create a few more special effects with the way you load your colours.

Basic hackle blending begins with lashing on your fibres, very much as you would with the hand combs, swiping the fibres over and down the tines so they catch. For a demonstration of loading a hackle and colour blending tips you can also watch my video on www.woolwench.com/downloads (scroll down the page to the appropriate video).

The way you load your fibre will influence the way the colours are spaced and separated throughout the roving. If you want a really heathered effect then you will also have to make repeated blending passes, either removing the fibre from the hackle with hand combs, making sure that they have the same tine size and spacing as the hackle, or remove it with the diz before lashing it back onto the hackle. This is also easier when using similar, rather than contrasting colours.

When using hand combs to blend with the hackle, the procedure is the same as combing, load as much fibre onto the hackle as you think you can fit onto two combs (don't overload it), then, starting at the tips, swipe your comb sideways through the fibres, working your way back toward the hackle, side to side to transfer the fibre to your comb. Swap to the second comb when the first is full.


When you have as much off the hackle as you can, remembering there will be waste left on the hackle each time, then you can reload it by lashing the fibres

(still on the comb) back down over the tines by holding your comb sideways and swiping the fibres downwards over the hackle, transferring back from the comb to the hackle again. Repeat this procedure until you have the blended effect you are looking for.

If you don't have combs you can achieve this blended heathery effect by using your diz, preferably with one of the smaller holes on it to encourage more blending with each pass. Work your way back and forth across the front of the hackle to create a roving, then re-lash that onto the hackle again, repeating again until you have the blend you like.

Remember that you will speed up the blending process by initially lashing your colours in thin layers onto the hackle, the thinner the layers the more blended they will be as you remove them.

You can also add in your bling and sparkle at any point, depending on how much you want that to be mixed into the fibres or left as stripy highlights.

To make colour effects and multicoloured rovings the procedure involves less repetition than to make an even blended mix, as the key is entirely in the way you load the colours on the hackle. For these techniques we use the hackle and diz only, because using the comb will mix up the colours more than desired and muddy the effect.

There are at least two different ways you can build up layers of colour on your hackle. You can either add layers onto the hackle horizontally,
across the width of the hackle, or you can build them up vertically, stacking pillars of colour.

When you layer the colour horizontally across the width of your hackle, then diz it off, you will see the stripes running all the way through your roving, along the length of it. When you stack your colours vertically you will create a roving where the colours come and go, rather than run consistently through the roving, so you will see blocks of colour.

Another possibility is actually doing both horizontal stripes, with vertical stripes in between, this will give you a roving with some colours running all the way through the length of it, and some colours alternating in blocks between those. Of course you can also play around with alternating layers and blocks, alternating thick and thin stripes etc.

Things to keep in mind as you load your hackle:


The thicker your layers, the thicker your stripes will be. The more layers you have the less stripey your yarn will look as the colours will be more subtle and blended. To have colours come and go, or to make splashes of colour in the roving, add smaller patches to your hackle rather than loading the colour all the way across it. The more colours you add the less obvious striping you will see in the roving.

## blending board

The blending board is a great tool for making some specific kinds of blends. It won't give you the mixed colour blends that you can get with the drum carder and combs (or hand cards) but it does give you the ability to make some amazing mixes of 'painterly' fibres, as you have total control over where your colours go. With the blending board you are really not so much blending as 'melding' the colours together. You can layer them so that when they are spun from the end of the rolag they will be all mixed, you can stripe them lengthwise down the board to give you short colour changes in your yarn, or you can stripe them horizontally across the board to give you rolags with one dominant colour.


Start your rolag by laying fibres onto the the blending board, taking small amounts of fibre and spreading it over the board from top to bottom, so they catch and stick. It can be helpful to hold the top of your staples against the board and draft slightly with your other hand as you spread the fibre, this helps it sink into the tines and prevents the layer getting too thick.
You can also place your fibres on at different angles, it's not necessary for all your fibres to be lying straight or parallel to each other, you can let your choice of colour placement dictate the direction of the fibres for you.

As you start to fill up the board you can use your brush to blend and press the fibres down into the tines, making room for another layer and blending the colours and textures together as you work your way across with the brush. You shouldn't pack the fibres down really densely, but you can keep building up layers this way, brushing in between, until you are satisfied that you have filled the tines enough (just below the top).

To make stripes in your rolags lay the fibre in vertical stripes down the board. You can use this technique to create graduated rolags and yarns, or a rainbow effect.


To make a graduated rolag and subsequent yarn, start with either the darkest or lightest colour, making a stripe down the length of the board, Next to that lay a stripe of the next darkest (or lightest) shade, and so on across the board, so your graduation is constructed the way you like it. Then gently brush in the fibres, paying attention to the areas where the different shades meet, don't let them get mixed up but allow them to mesh together enough that your rolag will also hold together. Once you have rolled off these graduated rolags you can spin from either end and the yarn will reflect the same graduations that you see from one side of the board to the other.

To make a multicoloured rolag, place the colours randomly rather than in stripes. Your fibre doesn't even need to be lying lengthwise on the board, as you are not aiming for a combed or smooth preparation but rather a fluffier 'woollen' preparation. Let the colours tell you how they want to be organised next to each other and lay on smaller amounts in any way you like. This will produce a multicoloured rolag and a mosaic-like yarn. Just keep in

mind that your layers need to be packed in an even layer or you will get thin spots in your rolag.
If you build up several layers of different colours on the board, for example, a layer of orange, a layer of white, and a layer of yellow, it will create a yarn that when you spin, you get all of them together in a yarn that has lengthwise barber pole style stripes, the thickness of which depends on the thickness of your

Once you are satisfied that your blending board contains enough fibre (the tines are filled to the top is generally a good guide) its time to start rolling and drafting. Turn your board around so you can start at the bottom, rolling upwards towards the top. You can expect to get at least 4 rolags from your board, depending on how big you roll them and how full the board is. Gently lift the ends of the fibre from the tines at the bottom of the board. Place one stick on top of the fibre and the other underneath it, trapping the ends between them, then gently start rolling the fibre around the sticks.


Give it one or two turns, then, when you're sure the fibres are well caught, start to draft the fibres by pulling the sticks upwards and angled towards the bottom of the board, you should feel the fibres that you are drafting start to loosen as they begin to thin out, at this point you could stop and continue wrapping, but you should also be careful not to wrap these drafted fibres too tightly around the stick, this will make drafting from the end of the rolag very difficult when you come to spin it.

Instead, loosen the fibres around the stick somewhat by unrolling it a little, then re-rolling them back around the sticks with less tension this time. Repeat this process, wrapping, drafting, loosening, until you have about a quarter of the fibre rolled up, or your rolag is the size you want it. Pull the rolag free from the board and gently smooth the fibres around the sticks with your hand to tidy up the ends. Then simply pull the entire rolag loose by sliding it off the sticks, this is easiest if you pull out one stick first, and then the other. Once you have taken off your first rolag, just continue to repeat this same process, until you have removed all the fibre from the board.

You should find that your colours are slightly blended where ever they touch, rather than being mixed and carded into a new colour or shade they stay much more separated on the blending board, allowing you to create un-muddied, multicoloured yarns from the resulting blend.


## Drum Carding



Drum carding is one of the most efficient ways of blending larger quantities of coloured fibres. There are many different kinds of carders, so I won't go into too much detail here about the different ones available, other than to say that one of the main differences is in the TPI - tines per inch. If your carder is a fine carder, with $90+$ TPI, you will find that you can make smooth blends using multiple passes to create a soft heathery effect in your colours, with little risk of damaging your finer fibres.

If you have a coarse carder, with a larger gap between the tines (and generally these will have thicker tines than a fine carder) you may want to take care with the number of passes you do with fine fibre blends such as Merino or Cormo (for example) due to potential damage to them from the coarser tines, cranking slowly will also help prevent damage.

Just like when blending on the combs, you should decide first how much you want to blend and mix your colours, do you want to change the colour completely (mix up some yellow and blue and make a green) or do you want to alter the tone or shade of a base colour? You can also make graduated batts so spin a graduated yarn, or you can make stripes for as self striping yarn.

When you are blending fibres with any tool, colours that are similar to each other will be easier to blend than colours that are very different from each other. You can change the shade, the lightness or darkness of a colour, by blending with either a white (or a lighter shade of the same colour) and you can make a darker shade by adding black or grey, or a darker shade of the same colour.

In the following blend, I started with two reds, neither of which I liked, one was too dark and blotchy and the other too bright and orangey.


I layered the two reds thinly onto the drum carder, building up alternate layers of each. This is how it looked after the first blending pass.


I actually quite liked this, but the goal was to make a more even blend, and to add in some sparkle too. So I split this lengthwise three times, spread out the fibres and ran them through the carder onto the drum again. Here's how it looked after this second pass.


This is getting much closer, but now I wanted to add some sparkle, and to even out the colour a bit more, so through it went for another carding pass. I was happy with this result!


It has increased the richness of overall colour, evened out the blotchiness of the darker roving and deepened the colour that was in the 'too bright' roving.

To get a good even blend you will need to feed your fibres and colours onto your drum carder in thin layers, alternating colours, dark and light, then remove the batt and split it lengthwise at least twice, spread the strips out on the feed tray and feed back onto the drum. Repeat this until you have the shade you like, adding just a little more of the lighter or darker colour at a time, it is always easier to add more, than it is to remove too much!

When you make your blended batt, its a good idea (again) to record the amounts you use of each colour, you can either weigh, and work out percentages, to be really sure that each batt will be the same, or you can 'eyeball' it, approximating the different amounts. Use the record sheets in the back of this book to record your recipes, add fibre samples of the individual colours used as well as the final result. Remember to also note how many passes you needed to get to that amount of blending.

This is definitely the time to start experimenting, putting on your mad scientist hat and playing around the percentages and colours. Start with two base colours, try complimentary colours like green and red, or orange and purple, so you can really see whats going to happen when you blend.

Start with a 50/50 blend to create a neutral batt in which neither colour is dominant, then
 start varying your blends, $70 / 30,60 / 40$, etc, and swapping the dominant colour to see what happens. Keep samples of each result with the notes about percentages or proportions.

If you are better with the 'eyeballing' approach than the weighing and working out percentages approach, you can still keep a record of the individual fibres and colours used in your blend, and an approximation of the quantities for later reference.

When you have explored what happens with 2 way splits, try adding a third, or even more colours, keeping in mind that the warmth or coolness of the additional colours will work in your mix to alter the look of your fibres. These additional third and fourth colours, may be best done in smaller proportions, allowing at least one colour or tonal range to remain dominant, to reduce the chance of muddying them too much. They may also require fewer passes through the carder for the same reason, leaving the individual colours more visible in the batt.

## Multicoloured batts - striped

It is possible to make long stripes, by adding your colour to the batt in single stripes around the entire drum. Start out with some pre carded strips or commercial roving, feed your strips onto the drum, moving across the width of it with each colour. If you allow the edges to feather together a bit that will give you a nice transition between colours and the batt will hold together better. I like to spin these batts from one corner, working my way back and forth across the batt to make shorter colour changes, or you can strip it and spin each colour one after the other for longer stripes.


You can make a graduated batt in the same way, but this time using precarded and blended colours that are all in the same colour range, working from dark to light and feathering the edges together to blend them nicely as you work your way across the drum. Keep samples of each individual fibre in your record log and a sample of the yarn you spun from them after blending, so you can replicate the batt if you want to.

## Using a Diz - Creating Hand Pulled Roving

A diz is just a little thing, and yet so incredibly handy! Its basically a disk, with at least one hole in it, through which you pull/draft your fibre to create your own roving. Some dizes are concave, helping to funnel the fibres into the roving, some are flat, most have more than one hole size, each of which can be used to make different roving thicknesses.

The coolest thing with the diz is you can use it to create roving from off your hand combs, your hackle, from the
 blending board and also from the drum carder.

## The method for dizzing fibre off the hackle and the hand combs

is pretty similar. For the hand combs you need to be able to attach or clamp the comb to your table or work surface, because you need two hands to diz properly.

First, take a pinch of fibre from one side of the hackle or comb, give it a little twist to make a point, and slide it through the hole in the diz. Don't take too much fibre because that will jam up the diz and you wont be able to draft your fibre through it, you will know its too much because it will jam...

Take the tip of that fibre then gently slide the diz along it towards the hackle or comb tines, stop when you get a bit of resistance - and again, don't push it too hard into the fibres as you will collect too much through the hole and it will jam.

Now gently pull your fibres through the diz, you should feel them drafting out a little. If you pull too hard it will break off, so as soon as you feel the fibres starting to pull apart and your diz becomes loose on the fibres, then its time to push it up again gently to collect more. It's a good idea to draft your fibres side to side, rather than tugging them straight out, this will help you keep a better thickness and evenness in your roving, as well as making it easier to draft.

Once you have drafted off most of the fibre in one area, start moving your diz across the front of the hackle slightly each time you push it back in to collect more fibre, the goal is to work your way across the entire width of the hackle (or comb), picking up and drafting the fibre through the diz to make a continuous roving. Don't worry if you get thin bits though, or if it breaks off, you can still spin it in pieces, and it can take quite a bit of practice to get a 'perfect' roving. If you are taking the fibre from the comb, you will get shorter lengths, roll them up into little nests and store them in a basket until you are ready to spin, they are incredibly decorative!

For a demonstration of dizzing from a hackle you can view my colour blending video: http://youtu.be/ FKlOCic6Qho


You can also use a diz to take fibre off a blending board, in much the same way as off the hackle. Start out at the bottom right corner, pulling through a little fibre, push the diz up towards the board, and draft out the fibre. Here you will be moving your diz back and forth across the width of the board and back, picking up fibre as you go. If you had made horizontal stripes on your board you will get short blocks of each colour in a repeating pattern using this method of removal, just as you would with the rolags from the same board, however the blocks made by dizzing will be somewhat shorter.

Making your own roving from your drum carder with the diz is also the same kind of process as previous ones. In this case, start at one side of the drum, lift off a small amount of fibre and thread it through the largest hole in the diz. Keeping your diz slightly angled upwards from the drum, start to draft your fibre in the direction back and away from the tines. You will need to move the drum as you work your way around it, and when you get back to where you started, work the diz across a little to pick up the next fibres to start another round, without breaking off the roving. Be sure to keep the roving away from the drum as you work or it will catch and break apart.

Using the diz with the drum carder is particularly useful when you have made a graduated batt, as you can turn this into a graduated roving that moves from light to dark (or dark to light!) to make an ombre yarn. Its also a great way to make your rainbow roving, keeping the colours apart with nice transitions between. Another good reason for using a diz with your drum carder is simply that it makes your fibre easier to handle (in roving form) than in a single wide batt. And if your goal is to spin a smooth yarn, using the diz instead of splitting the batt, ensures that your edges don't get fluffed out from being separated, but rather you get an smoother roving to spin from having been passed through the diz, and therefore even further blended with all the fibres lying as straight and organised as possible in a carded preparation.


## Fiber Preparation Tool Comparison

| Tool | Prep Type | Yarn | Spin IMethod | Notes |
| :--- | :--- | :--- | :--- | :--- |
| Blending Board | Carded - Rolags | Lofty, Textured | Plain single, <br> Textured core- <br> spun |  |
| Combs | Combed Top | Smooth, <br> worsted | Worsted single. <br> Smooth core- <br> spun |  |
| Hackle | Combed Top | Smooth, <br> worsted | Worsted single, <br> smooth core- <br> spun | Possibility of <br> adding more <br> texture by add- <br> ing locks but can <br> clog up in the <br> diz |
| Drum Carder | Carded Batts <br> Dizzed Roving | Lofty, can be <br> textured or <br> smooth | Woolen or <br> semi-worsted | Dizzed roving <br> will make a <br> smoother prepa- <br> ration. Batts can <br> be carded in sev- <br> eral passes for a <br> smoother batt |
| Hand Cards | Carded, rolags | Lofty and airy | Londgraw <br> (wollen), or <br> semi worsted |  |

## R円CORD SHFETS

What follows are different kinds of record sheets for you to print, fill in, and add your samples to. Print as many of each as you need. You could staple your samples onto the page, or slide the page and samples together into a clear pocket display in your folder.

Create a section for each kind of tool you have and record and compare the results you get between tools, this is easiest to do when using the same fibres with each different tool.

The sheets are for writing your 'percentage' reciple, however if you prefer to work on 'eyeballed' proportions thats fine, just note approximate quantities in measures you can reasonably repeat, such as 'handful' 'pinch' etc. Just like cooking!

You can also use the 'Notes' section on your sample sheet to describe how you added the fibre to the blend (ie striping, thin layers blocks etc), and it is often useful to add a photo of how you have laid your colours out and in which order for repeating multicoloured batts and roving. So, Happy Blending!


# sample sheet: colour blending two colour blend. 

colour \#1

colour \#た
percentage:
equipment used:
number of passes:

Notes

# sample sheet: colour blending two colour blend 

colour \#1

colour \#2
percentage:
equipment used:
number of passes:

# sample sheet: colour blending three colour blend 

colour \#1
colour \#2
colour \#3
percentage:
equipment used:
number of passes:

# sample sheet: colour blending three colour blend 

colour \# 1

colour \#2
colour \#3
percentage:
equipment used:
number of passes:

# sample sheet: colour blending multicolour blend 

colours used:
percentage/proportion of each
equipment used:
number of passes:

# sample sheet: colour blending multicolour blend 

colours used:
percentage/proportion of each
equipment used:
number of passes:

## NOTES

## NOTES

