## Michaels

Made by you"'


# Designing with Color Theory 

Seed Bead Palette \& Mix Design


Creating your own seed bead palettes and mixes is a fun way to make your jewelry designs unique to you. Creating your own mixes can stretch your bead stash by using what you have on hand in a way that makes something new.

Everyone's eye for color is different, but it is still possible to create combos that will slow the scroll and get a second look. Sometimes it's really about what's new and different, other times it's the harmony of the combination.

Color theory is a vast subject. Beyond the definitions and industry-accepted models and systems, a deeper look into how things are colorful turns out to be a multifactorial phenomenon that spans many disciplines, including physics and biology. It is a fascinating topic to dive into. What you learn will help you better describe what you are naturally drawn to, as well as provide new ideas when selection colors.

What follows is a distillation of the vocabulary and parts of the models that stand out as most relevant to working with our medium, seed beads and beaded jewelry.

Hues are colors in the visible spectrum of light. They are the different wavelengths that make up visible light, red, orange, yellow, green, blue, indigo and violet. The splitting of white light, or chromatic dispersion, gives us these colors.

Value is the term used to describe the measure of intensity or luminosity from lightness to darkness, from white, which is the presence of all visible light to black, which is the absence of visible light.


Saturation is like value, but in between white and black are shades of grey. The more clearly a color resembles its fully illuminated state, the more saturated it is. The more white it has, the more desaturated, muted, or chromatic, grey the color.


Subtractive Color is the result of light reflecting from surfaces. Some wavelengths are absorbed while others are reflected, depending on the molecular structure of the surface. The absorbed wavelengths are subtracted. The reflected wavelengths are perceived as color, or the hues of visible light.

Subtractive Color Mixing is the mixing of substances to change what wavelengths are absorbed or reflected. This is what is happening when you mix paints.


Additive Color is the result of wavelengths of light combining. All values combined make white light.

Primaries, or Primary Colors are the colors that cannot be created by combining other colors. They are Red, Yellow, and Blue.

Secondaries are colors in between the three, primary colors that result from the mixing of those colors. They are Orange, Green, and Purple.

Tertiaries are colors made from mixing primary and secondary colors. RedOrange, Yellow-Orange, Yellow-Green, Blue-Green, Blue-Violet, Red-Violet, which are formed by mixing a primary with a secondary.


Color Models are systems used to both describe and standardize colors. Different industries and applications use different models. Two examples are RGB (Red, Green, Blue) and CMYK (Cyan, Magenta, Yellow, and Black). RGB is an additive model, used in digital colors and for screens, and CMYK is used in print media, a subtractive color mixing model. Another subtractive model, RYB, which uses the primary triad red, yellow, blue, is most useful because of its uniform, even spacing when represented on a color wheel.

You man also hear terms like HSB, or Hue, Saturation and Brightness, or PMS, which is the Pantone Matching System.

A Color Wheel is a visual representation of a color model that shows the relationship of the primaries in that model relative to each other. Different color wheels exist for different color models.


Color Harmonies are two or more colors selected from around the color wheel that are known to be aesthetically pleasing due to their contrasts or dissonance, and their consonances, terms you also hear in music. A fascinating aspect to consider on that front is that color is a wavelength of light. Colors create consonance and dissonance, which can be perceived as visually harmonious. Comparisons have been made to the 12-tone musical scale and the 12-hue subtractive pigment color model (Lubar, MIT Press).

Some common color harmonies include:
Complimentary
Split Complimentary (Triadic)
Square Quad (Tetradic)
Rectangle Quad (Tetradic)
Analogous
Monochromatic


Complementary colors are colors that cancel each other out, making white or black when mixed. The color directly across from a color on a color wheel model is its complementary color.

A split complementary is a trio of colors that combines one color with each of the colors adjacent to its complementary color.

Analogous If you take three adjacent hues, you have a palette that is considered analogous.

Tetradic are four colors that can be the four corners of a square or a rectangle overlayed from one color on a color wheel. They typically generate two pairs of complementary or split complimentary colors.


Monochromatic If you take one color and vary its saturation and brightness, you are making a monochromatic of that color. On a color wheel, moving toward the center is lowering its saturation, down to white, at the center of the wheel. Moving outward from the edge is lowering its brightness, down to black. The 100\% Saturation and 100\% Brightness Ring is the Daylight appearance of that color.


## Emotional Impact of Color

One of the more subjective aspects of the use of color is describing the possible emotion or feeling when observed. Color can be used to communicate mood. Some of the ideas are obvious, such as decreasing of brightness for deeper emotions, or the use of less saturation for an uplifting feeling.

The combinations of colors can also have effects. Monochrome palettes can be relaxing and reassuring.

Analogous colors can be comforting and composing. These combinations are often found in nature.

Complementary Duos are high contrast. They draw attention, express boldness, are upbeat, but can sometimes be jarring.

The use of Split Complementary Triadic and Tetradic combinations can still be bold and eye catching, but in a less aggressive way. Like complementary, they are also often used in calls to action and to attract the eye.

Combinations of the above are possible and when it comes to creating a good seed bead mix, can become recipes.

## Let's Talk About Seed Beads!

Different finishes of seed beads can change the value (saturation and brightness) of the hues. Mixing finishes of the same color in a design will adjust the overall color that will be perceived.

If they were paint colors, the following finish types would be like adding white/grey, to desaturate the color:

Transparent, matte, and frosted beads may appear to have a saturation value that is lower than their opaque equivalents.

Transparent Silver-Lined Beads may reflect light differently, in a way that slightly lowers their saturation compared to their opaque equivalents.

Luster coating, milky, oily, and AB finishes will also appear less saturated.

Some finishes can decrease the brightness. They can be compared to mixing in black paint to darken a color.

Travertine and Picasso finishes have a darkening effect on a color. It will take the overall color and lower its brightness, moving it away from the center of the color wheel, giving it an earth tone effect.

Metallics are an interesting outlier, in that they can both desaturate and decrease brightness, depending on the color and how it is used. A metallic can be used as a magnifier for the main color, or as a spark or spike to the texture, adding richness and visual interest.

Tip: Our minds like to complete patterns. If you're trying to create a palette, but you're missing a color, try substituting an analogous color that is either desaturated from a darker color, or has a lower brighness value if working from a lighter color. For example, if you need but don't have orange, you could use a desaturated red, or a yellow that has a lower brightness value.

## Seed Bead Mix Recipes

Great seed bead recipes can be created using the basic combinations of color harmonies described above, but you can also combine harmonies for more visual interest. Here are three examples of combinations to try. These are not comprehensive of the possibilities, but just to get the creativity started!

Mix Recipe 1 - Complimentary + Monochrome This makes a great mix for both color block and mix palettes. Select five seed bead colors. Choose two that are split complimentary. Then choose one of those and add both darker and desaturated versions of it.


Mix Recipe 2 - Analgous Flow
Choose four or five colors in an analogous sequence.


Mix Recipe 3 - Monochromatic with a Metallic One of the most stunning mixes can be as simple as taking one color and adding three colors that are monochromatic from it + a metallic. Start with a hue and wor down from it in saturation and brightness. Take one of the colors to near 0 brightness, or, near 0 saturation. Add a metallic. The metallic can be warm or cool. Example, a gold metallic is added to a low value red/orange monochrome.


There is one more element to consider: what type of mix or palette are you creating for, and what type of jewelry and stitch do you plan to use the mix in?

Here are some examples:
Color Blocking If your plan is to use a flowing color in a large block where it can be visualized in more detail, an analogous triad or tetradic would be a beautiful choice.

For use in a pattern with detail, high contrast complimentaries can be critical, or parts of your pattern may not show or stand out enough to be seen.

Mixes The sky is the limit if you're planning to stir beads together in a mix. Monochromatic magic of one color, paired with its split complimentary colors is always successful.

## Other sources of inspiration

Keep in mind that inspiration can come from your intuition, from nature, a photograph... The guides and tools are fun to use, but there is still no replacement for the enjoyment of lining up seed bead tubes and finding new combinations from what you have on-hand. You can always make something look new and surprising.

