Hue Value/Chroma Chart

*Representative sample for N 1/ cannot be achieved in matte finish.
Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.

Hue: 5R
Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.
Hue: 5Y

Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.
Hue: 5GY

Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.

Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.
Hue: 5G

Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X.”
Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.

Hue: 5BG
Place the colors of weakest chroma in the vertical column marked 2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an "X".
Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.
Place the colors of weakest chroma in the vertical column marked \( \frac{1}{2} \), arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.

Hue: 5P
Hue: 5RP

<table>
<thead>
<tr>
<th>Value</th>
<th>Chroma</th>
</tr>
</thead>
<tbody>
<tr>
<td>/2</td>
<td></td>
</tr>
<tr>
<td>/4</td>
<td></td>
</tr>
<tr>
<td>/6</td>
<td></td>
</tr>
<tr>
<td>/8</td>
<td></td>
</tr>
<tr>
<td>/10</td>
<td></td>
</tr>
<tr>
<td>/12</td>
<td></td>
</tr>
<tr>
<td>/14</td>
<td></td>
</tr>
</tbody>
</table>

Place the colors of weakest chroma in the vertical column marked /2, arranging them in the proper value sequence (darkest will be on the bottom, lightest at the top). Next build out from these to the strongest chroma on each value level. Fill those spaces marked with an “X”.
Plastic Overlays for The New Munsell Student Color Set Chart Exercises

Print this document on a computer-printable transparent plastic sheet, for example those made by Graphix, which are available at large office and art supply stores. Be sure to use sheets that are compatible with your printer, ink jet or laser. Carefully follow the instructions that accompany the plastic sheets. Set your printer driver for transparency document, print on the correct side of the sheets, and let the printed sheets dry for several minutes before touching the inked areas, or stacking them. Cut out the printed rectangles using scissors or a craft knife. To experiment with different colors, copy this pdf to your desktop, open it as an Illustrator file (.ai), and change the colors of the overlays.

**For Color Constancy Exercise**

![Resembles sky light](image1)

![Resembles sunlight](image2)

**For Color Assimilation and Optical Mixture Exercises**

![Stripes](image3)

![Stripes](image4)

**For Iridescence Exercise**

![Grid](image5)

![Grid](image6)
Advancing and Receding Colors

There is a similarity between how the eye focuses on near objects and how it focuses on “warm” colors, and a similarity between how the eye focuses on distant objects and how it focuses on “cool” colors. This may explain why “warm” colors appear to be closer in distance than “cool” colors, when together in a design or composition. Instructions: Select chips from your Hue charts that demonstrate this effect and place them below.* Hint: The “warm” colors should contrast well in value and chroma with the “cool” colors (Chapter 2).

<table>
<thead>
<tr>
<th>Indoor light</th>
<th>Skylight</th>
<th>Sunlight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP 7/4</td>
<td>SP 7/4</td>
<td>SP 7/4</td>
</tr>
<tr>
<td>SGY 8/4</td>
<td>SGY 8/4</td>
<td>SGY 8/4</td>
</tr>
</tbody>
</table>

* Do not permanently affix the chips to the charts.

Color Constancy

One task of vision is to make the world appear consistent and stable. It adjusts to changes in light so that the difference between colors appears constant. Instructions: From the bag labeled “Chips for interactive charts”, remove three chips from each of the stacks of SP 7/4 and SGY 8/4 chips and place one of each chip in the rectangles below*. Cover the second large rectangle with the blue transparent plastic sheet that you printed, and cover the third with the yellow sheet. Even though the colors of the chips appear to change, each set of two colors looks equally different, regardless of the color of the “light” (Chapter 3).

Successive Contrast and Vibrating Boundaries

To continue functioning well, vision adapts to the over-stimulation of intense light or vibrant color by creating the perceptually opposite, complementary color. Instructions: Remove the SGY 6/8 from your SGY Hue Chart and place it inside the purple rectangle below. * Brightly light this page and stare at the chip for 15 - 30 seconds. As you stare, notice that a subtle purple haze begins to veil the green-yellow, and a green-yellow haze veils the purple, making both colors appear grayer. Also notice that the edges of both colors begin to shake or vibrate. Quickly move your gaze to the adjacent white rectangle. Gradually, a faint afterimage will appear, revealing the perceptual complementary colors. Next, place the SP 4/10 chip inside the yellow-green rectangle. Again, stare at the yellow-green chip against the purple background. After, move your gaze to the purple chip in the yellow-green background. Notice that the afterimage makes these complementary colors more vivid (Chapter 2 and 3). Experiment with other colors.

* Do not permanently affix the chips to the charts.
Simultaneous Contrast

When one color is surrounded by another, vision emphasizes the differences between the colors. Using this effect, one color can be made to look like six. Instructions: Remove the six, identical, purple chips from the bag marked "Chips for Interactive charts" and place them horizontally in the colored rectangles below.* Repeat using the six green-yellow chips from the bag (Chapter 3).

* Do not permanently affix the chips to the charts.
Separated Color

To help us understand the world, and for survival, vision empathizes the similarities among colors that are a distance apart. From your Hue charts select two colors that are similar but not the same, for example, 5B 6/8 and SBG 6/8 or SY 5/6 and SY 5/6. At the top of the long inner rectangle at left, stack the two chips side by side. Then slowly move the bottom chip to the end of the rectangle.* Notice that as the chips separate their hues appear increasingly similar. Hint: The values and chromas of the two colors should be the same or similar. Also the effect is stronger if viewed from a distance (Chapter 3).

Color Assimilation and Optical Mixture

When one color is surrounded by another, vision emphasizes the differences between the colors. However, when colors are alternated in very thin stripes or tiny dots the opposite effect occurs and vision emphasizes the similarity between the colors; they appear more alike. If the stripes or dots are tiny, or viewed from a distance, vision is unable to differentiate the colors and they appear mixed.

Instructions: Align the transparent plastic sheet with the green stripes, that you printed, so that two-thirds of the green stripes alternate with each set of the colored stripes above. Notice that when the colored stripes are alternating, for example green and red, their colors appear more alike than when they are against white. Next, gaze at the area of alternating colors from a distance and notice that the colors appear to mix (Chapters 3 and 8).

* Do not permanently affix the chips to the charts.
Iridescence

A shimmering effect can be created by layering and shifting semi-transparent materials that have a linear or grid structure, for example, certain fabrics and fine metal screening. The effect is also seen if the viewer’s angle of view moves. Optical mixture causes the colors to mix. Instructions: Drag and rotate the plastic sheet printed with the purple grid, that you printed, on top of each colored grid below. Repeat, using the red grid. Repeat, layering the red and purple grids grid and moving them in opposite directions (Chapter 3).

Transparency Effect

The illusion of overlaying two transparent colors can be created with opaque paints and papers by carefully mixing or choosing the color for the overlaid area. Instructions: From your color charts, select chips that create the illusion of transparency and place them in the open spaces above.* Remember that the color of overlaid transparent colors always is darker and a bit grayer than both “parent” colors. Hint: Refer to the Munsell hue circle to find a hue between the “parent” hues (Chapter 3).

* Do not permanently affix the chips to the charts.
**Color Control**

Often, an artist or designer wishes to create an appearance of unity in a work. This can be accomplished by establishing a dominant hue, value, and chroma, and repeating them throughout the work, for example, light and vivid blues, or dark and grayed browns. To prevent monotony, included are a few colors that contrast in hue, value, and chroma. Instructions: Create two unified designs by carefully choosing colored chips from the charts and placing them below,* making sure to establish dominanance, repetition, and contrast in each design (Chapter 4 and Color Plate 6).

**Harmonious and Balanced Color Groups**

A popular theory, based on observations of nature, postulates that harmonious and balanced groups of colors are pleasing. According to this theory, harmonious color groups comprise similar colors, and balanced color groups comprise opposite or nearly opposite colors. Instructions: Remove colored chips from the color charts and place them below to create an example of each color group.* Within each group establish color control, as defined above. Work to create unusual combinations, for example, high value or low chroma-dominant color groups (Chapter 4). Use different hues than those pictured in the book.

* Do not permanently affix the chips to the charts.
Color Sequences

In aerial perspective, the illusion of distance is created by gradually making a color more blue and gray (Chapter 2). Munsell postulated that dissimilar colors can be harmonized by creating a sequence between them. Instructions: Remove chips from the color charts and place below.* “N” chips are found on the Hue Value/Chroma chart (Chapter 4).

Matte and Glossy Colors

Surface reflection strongly affects color appearance. A color appears darker and somewhat more vivid with a high gloss surface, and lighter and grayer with a matte surface. Instructions: Remove the matte neutral “N” chips from the Hue Value/Chroma chart and place below.* Remove the neutral glossy chips from the bag, marked “Chips for interactive charts”, and place them below the matte chips* (Chapter 7).
Munsell Color Products

The Munsell Color System is organized for the way you see color; designed for the way color is manufactured, the Munsell Book of color is an atlas and compass combined.

Any color you can imagine can be located in color space along with its neighboring colors. So the more you frequent a given color “neighborhood,” just like an atlas, you become more familiar with the colors in a given space. And when you arrive in a new neighborhood, you quickly and easily become acclimated.

More importantly, you have a useful tool that will help you predict how color will change should you take a new color direction and also help you visualize how the new color will look.

Munsell Book of Color Matte and Glossy Collection
with genuine Munsell color chips

The Glossy book of color includes a complete range of colors creating a physical model of the Munsell Color Space. The book includes a brief tutorial on how the Munsell Color System works; with easy to follow graphics for understanding where the Munsell color space the color is located.

The Glossy Collection is the “master atlas” of Munsell Color:

- Individual colors may be purchased separately in 8.5” x 11” full sheets.
- 40 constant-hue pages
- Over 1,600 removable high-gloss color samples
- 2.5 Hue-steps apart

Munsell Book of Color Nearly Neutrals Collection
with genuine Munsell color chips

The Munsell Nearly Neutral Book of Color is ideal for projects that require neutral, subtle colors. The matte color samples are mounted on 20 constant hue pages plus one Nearly Whites® constant-value page.

- Individual colors may be purchased separately in 8.5” x 11” full sheets.
- 20 constant-hue pages
- Over 1,100 fixed pastel colors
- 5 Hue-steps apart
Munsell Hue Family Chips

Use genuine Munsell replacement color chips to replace worn or missing color chips from any Munsell Book of Color. Or, use the replacement chips as an additional set of working color standards and for palette development. This gives you an affordable way to get the Munsell Color family that you need without having to buy the entire book.

- Replacement color chips are available in matte or gloss finishes for both Neutrals and each of the 10 major hues in the Munsell Hue Circle - Red (R), Red-Purple (RP), Purple (P), Purple-Blue (BP), Blue (B), Blue-Green (BG), Green (G), Green-Yellow (GY), Yellow (Y), and Yellow-red (YR).

Munsell HCV Color Poster

This poster-sized view shows the three-dimensional arrangement of colors - called the “Munsell ColorSpace.” The Neutral Colors are placed along a vertical line, called the “neutral axis” with black at the bottom, white at the top and all grays in between. The different Hues are displayed at various angles around the neutral axis. The Chroma scale is perpendicular to the axis, increasing outward.

- The Munsell System at a glance, this poster-sized (25” x 38”) wall chart displays the Munsell System—featuring the 10-step hue circle, 8-step gray scale, and 6-step red chroma scaled—for all trainees and staff to see.

Munsell Color Tree

This attractive, three-dimensional model makes it easy to comprehend the Munsell three-dimensional color space.

- 309 printed colors representing the 10 constant hues.
- Mounted on clear acrylic panels, assembled on an acrylic base.
- Height 10.5”, Width 16”, Base Diameter 13.5”.

For more info or to purchase these products, find us on:

facebook.com/munsellcolor twitter.com/munsellcolor

To define color through precise color validation systems, contact Munsell Color at 877-888-1720 or visit Munsell.com