Class Problem 1

Paint Color Behavior and Basic Theory

To mix color you have to have a basic knowledge of color theory and a hands-on understanding of how paint colors behave with each other. It is important to understand that when mixing paint, as you are crating a painting, you draw upon your knowledge of color theory and your understanding of how paint colors behave, however it is more of hit and miss and try again to achieve the right color.

Studying the color wheel below is a good place to start learning color theory. The first thing you should note is the **primary** colors:

Red, Yellow, and Blue.

Primary Colors

Theoretically all colors can be mixed from these three colors. However theory and practical application are very different. If you were to ask theoretically what is the pure yellow? I would have to answer " the absence of red and blue". The same would be said of pure red, it is the absence of yellow and blue and pure blue is the absence of red and yellow. To simulate the primary colors in the color wheel below I used a *warm and cool hues* of each color. For primary yellow I mixed Cadmium Yellow and Lemmon Yellow. Mixing Cadmium Red and Alizarin Crimson to created a primary red and the Blue by mixing Phthalo Blue and French Ultramarine. An example is the primary red, Cadmium Red is a warmer red as it has more yellow them Alizarin Crimson, which is a cooler red as it has a blue under tone.

The idea of warm and cool color is critical to understanding color thorny and practical application. If you were to ask theoretically what is the pure. why it is important to have a basic understanding of color theory and spend a lot of time mixing and experimenting with the paint you are working with.

Secondary Colors

The next thing you should notice is that between the primary colors are the secondary colors. If you look between two primary colors you will see a secondary color. By mixing any two primary colors you will get a secondary color:

Orange, Green, and Violet.

Here is how it works; by mixing the following primaries you will create **secondary** colors:

Red and Yellow (primaries)	**=**	**Orange** (secondary)
Yellow and Blue (primaries)	**=**	**Green** (secondary)
Blue and Red (primaries)	**=**	**Violet** (secondary)

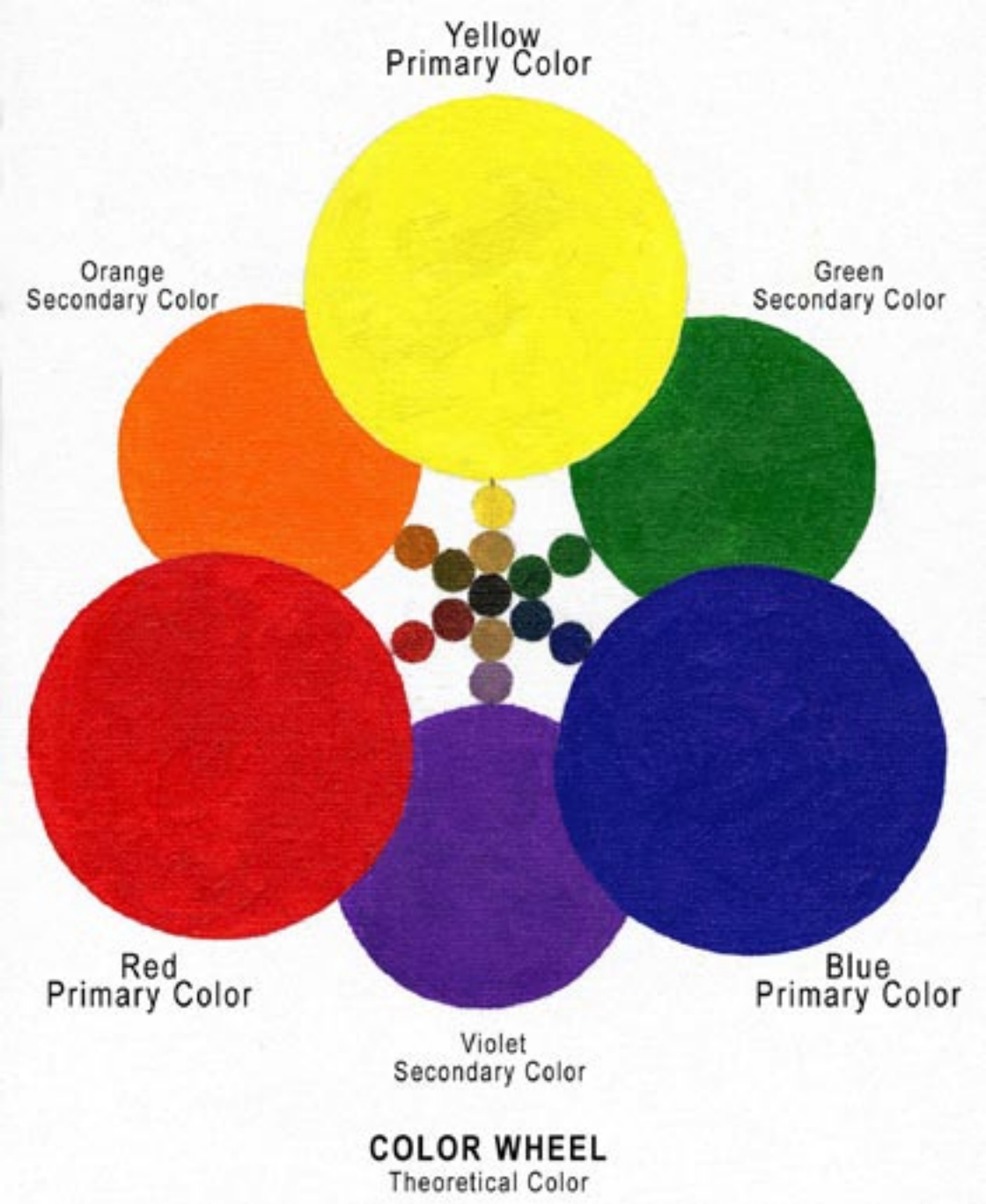
Complimentary Colors

Another important aspect of color to understand is complimentary colors. Complimentary colors can be found on the color wheel by looking directly across from one color to the color on the opposite side of the wheel.

The following are the basic complimentary color pairs:

Yellow	**/**	**Violet**
Orange	**/**	**Blue**
Red	**/**	**Green**

Complimentary colors are very important in painting. They can be used to increase the intensity of each other when placed side by side. An example would be orange with its compliment blue next to it will look much more intense then if surrounded by white. Another important aspect is when compliments are mixed together they create rich neutrals or grays. With a small amount of one mixed with the other you can achieve shadow tones. Example: If you are painting a red apple you can create the shadow side by mixing a little green and a touch of blue with the red.



Warm and Cool Colors

The color wheel also demonstrate the so-called warm and cool colors. In this one the upper left half you see the warm colors, yellow, orange, red and the in the lower right half you see the cool colors, green, blue, violet. It is important to note that within the warm and cool colors represented it the color wheel here there are also warmer and cooler versions of each color (see split primary colors on page 4). The warm colors are associated with fire, sunlight, and the cool colors associated with snow, shadows, etc.

There are many positions on the psychology of color, however it should be recognize that different people and cultures respond differently to the same color. Form a technical standpoint it is important to understand warm and cool colors, as there use is important in manipulating the eye in perceiving perspective distance and closeness of objects or planes. Cool colors recess and worm colors tend to look closer.

Split-Primary Colors (Warm and Cool-Primary Color Mixing)

In the first color wheel the primary colors were crated by mixing a warm and cool version of each color. Now we will look at the two colors by splitting them in two side by side. If you follow the principal of slit primary colors you will never mix muddy colors. In the color wheel on page 4, each primary color has been split in half with the warmer version to the left and the cooler version to the right.

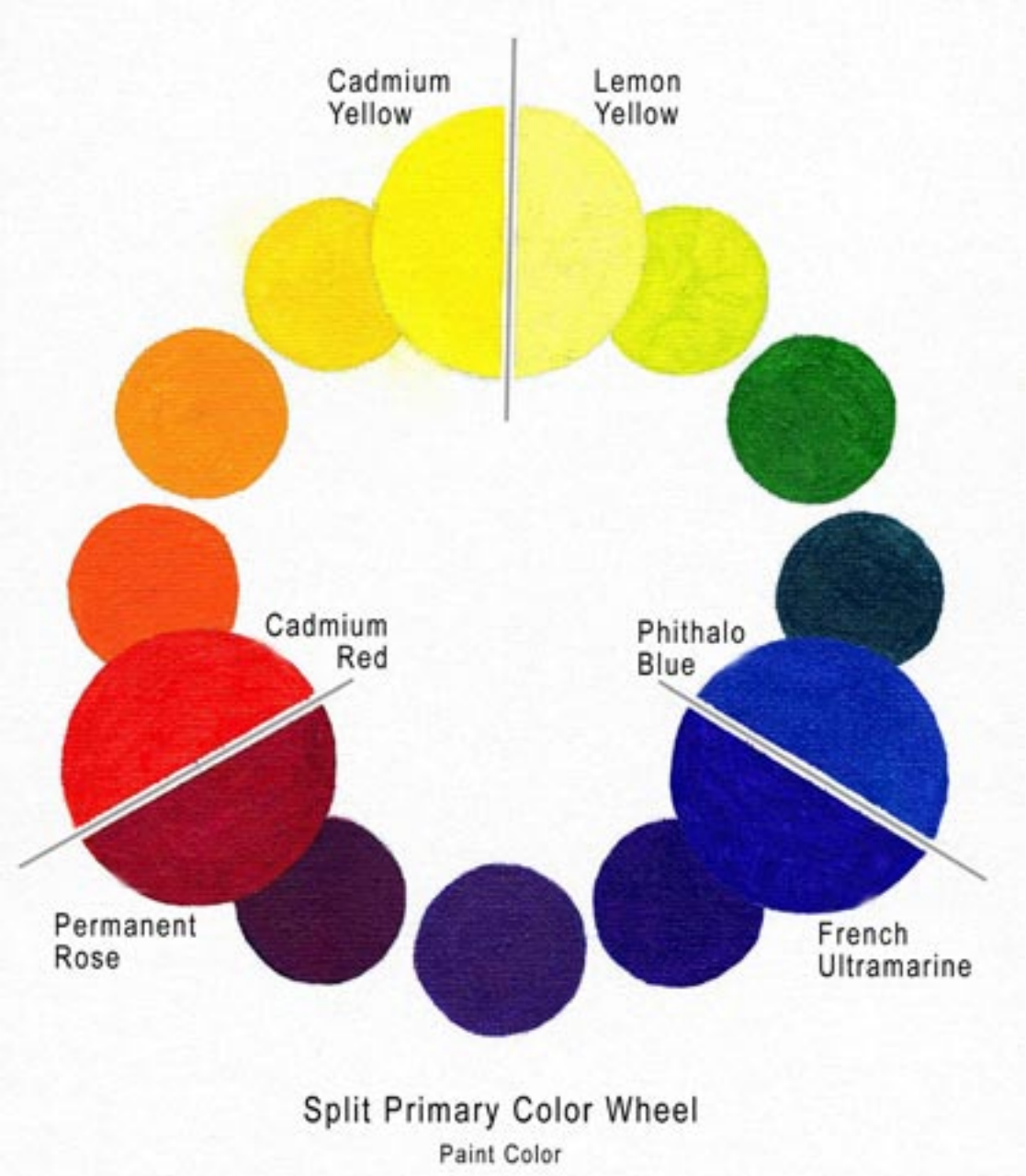
Primary Color	Warmer Version	Cooler Version
Yellow	Cadmium Yellow	Lemmon Yellow
Red	Cadmium Red	Alizarin Crimson
Blue	Phthalo Blue	French Ultramarine

Skill Exercise 1

Mixing Warm and Cool Colors

Armed with a basic understanding of color theory and how colors should behave you need to roll up your sleeves and dive into the paint. As was mentioned before the only real way to understand mixing color is by mixing them.

In this exercise you are to draw with an HB pencil the outline of the circles as they are shown in the chart on page 4 on a sheet from your 9” x 12” canvas pad. Make sure you split the three large circles in half as shown. Start with the large primary color circles that are split in have. Paint in the warm and cool versions of each color as shown in the chart. These are pure colors right out of the tubes. Next mix and paint the middle color between each large circle. These colors should be as bright as possible and be in a middle color scale between the two that are being mixed. For example the orange that is in the middle between Cadmium Yellow and Cadmium Red should be equal blend of the red and yellow. This is the brightest orange that is possible to mix. Try to match the colors as closely as possible. After you have the three smaller circles painted you will be able to evaluate the color range of each and make adjustments by adding more or less red or yellow. Please keep in mind that the Violet color between Permanent Rose and French Ultramarine is the most difficult to achieve. It is very difficult to impossible to mix a deep violet, most artists will end up buying a violet tube of paint. When you mix it, it may look too dark or almost black. Do your best to keel its color trange in the middle of the cool blue and red.



Split Primary Color Wheel

Paint Color