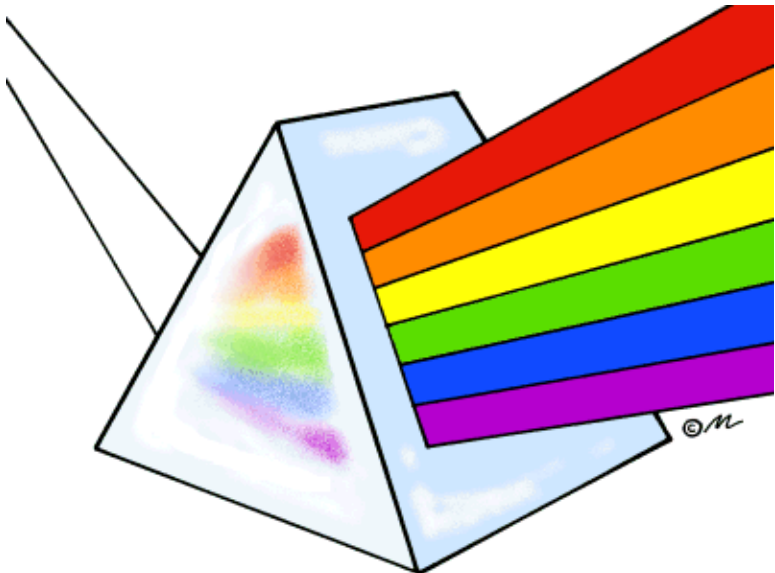
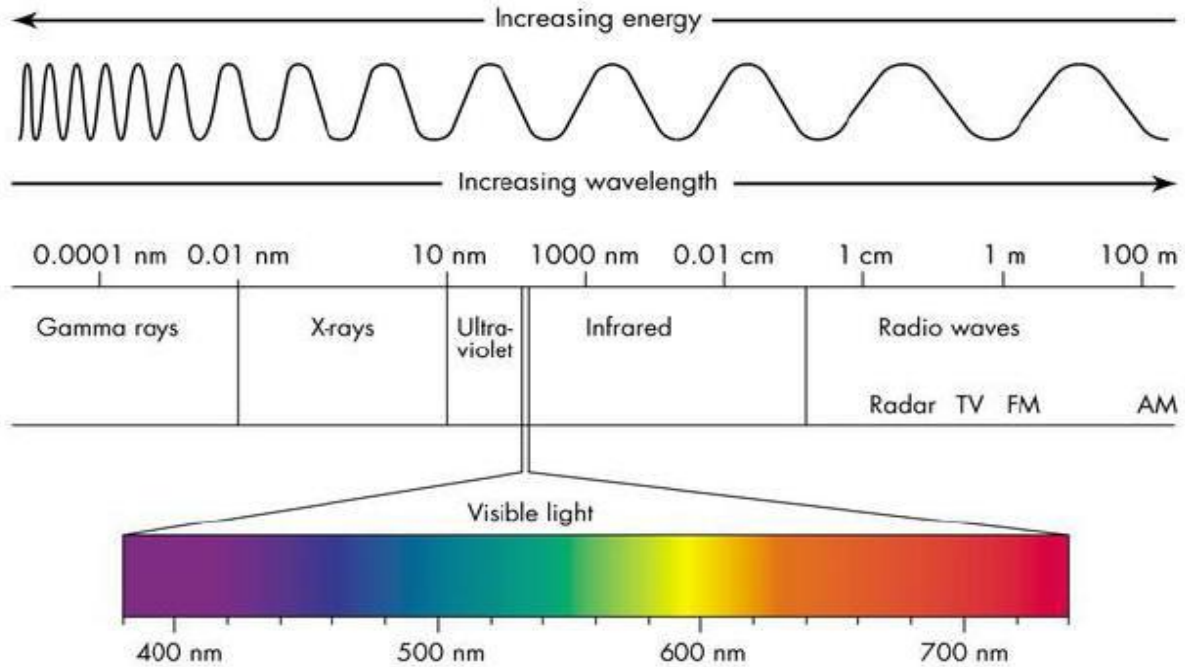


What is light?

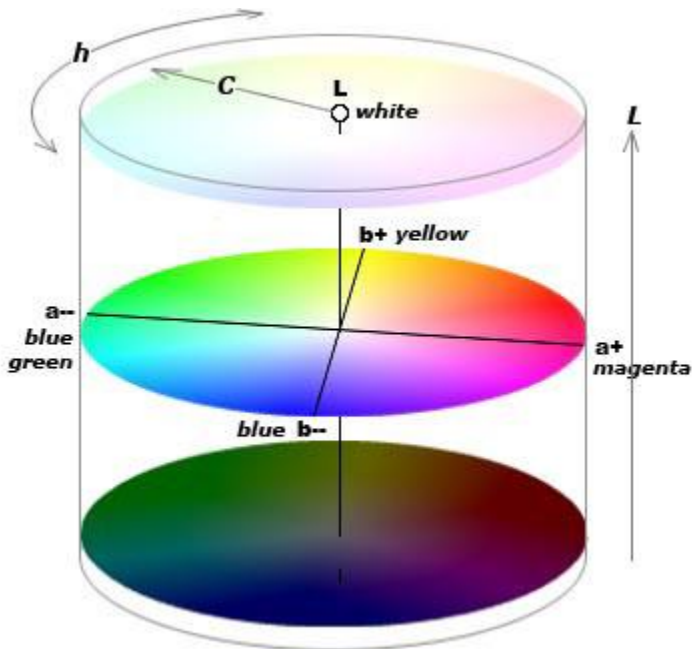
Light is the visible portion of the electromagnetic spectrum that the human eye can see.



In the image above we see the portion we can see if the visible light, which are between ultraviolet and infrared light. We normally assume light to be "white". But in reality it is really just a mixture of colors. It is similar to when we let light through a prism and we see a rainbow. The color always go in a certain order. Red, Orange, Yellow, Green, Blue,

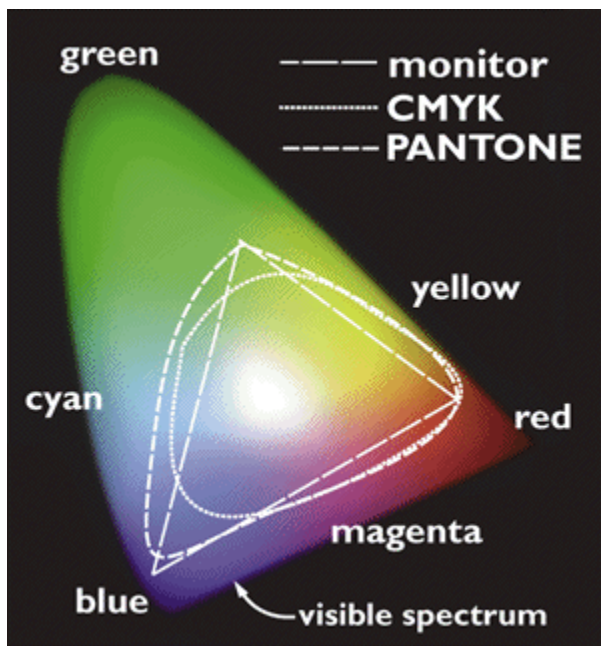
Indigo, Violet. From the highest frequency to the lowest. It is said that at 5000K is the ideal light source because you can see visible color best.

Gamut, Venn diagram, and CIELAB

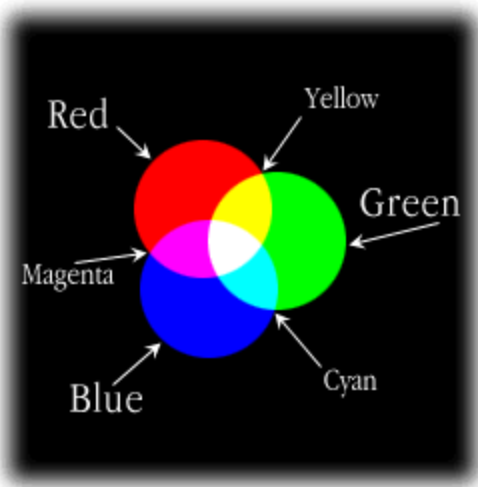


The CIELAB is the most accurate way to find color. It is able to show all possible colors within the visible light spectrum. It has a larger range of color than the color gamut..

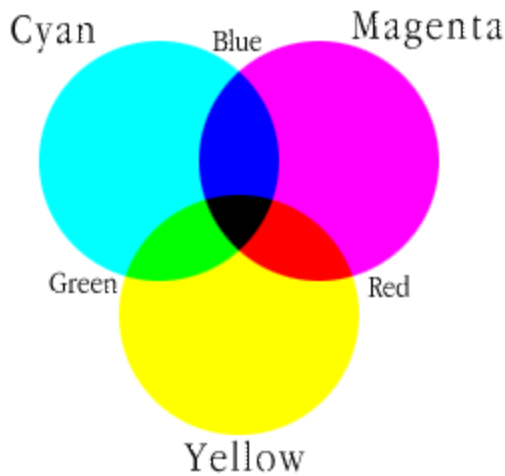
The L stands for light in which there is a black or white depending on the + or -. A is the space between red and green. Positive being red and negative being green. B indicates yellow(+) to blue(-).



The color gamut is used to show the portion of the color space or device that can be presented. For each different device it has a different limitation. It is very important to know when converting different images. For example, when you have a color in Pantone and print it in CMYK it may not be within the area of CMYK. So it does it best to make the color the same as it can, but in the process the original color may be lost.



These two Venn diagrams are used to show RGB and CMY colors work. The RGB being additive colors, while CMY being Subtractive colors. When you mix Red, Green, and Blue you get white. It is also where Magenta, Yellow, and Cyan come in when u mix two of the colors from the RGB.



When you do the reverse, it works the same way except when u mix Cyan, Magenta, and Yellow you get black instead.

Cones and Rods

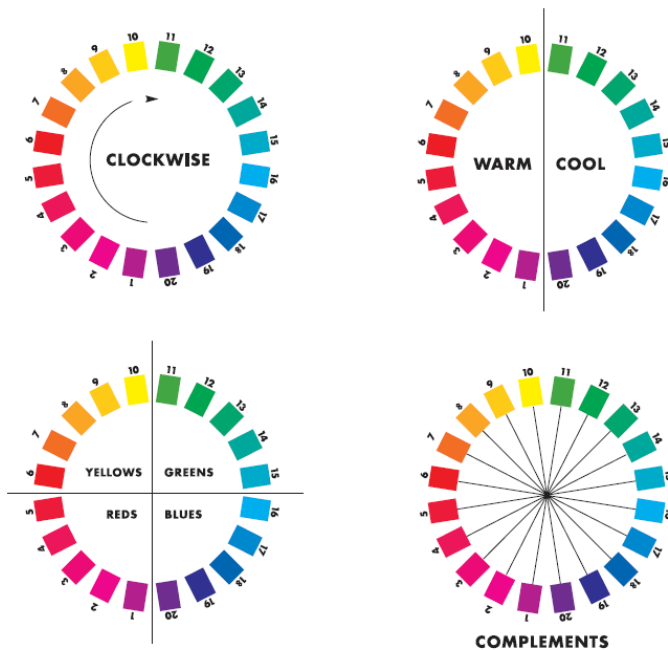
In the human eye, there are two types of photoreceptors. The cones are used for color vision, while the rods are used for "light" vision. The cones normally are more active when there is more light and rods are responsible for vision with less light. The cones are sensitive to the color red, green and blue. In order to see color we need 3 factors. We need a light source, an object to look at and an observer to see the object when light is.

What is Delta E?

Delta E is used to determine the difference between two colors based on LAB coordinates. It is mostly used to compare a reference color and the other color is the one that tries to match it.

Normally a difference of 1 or less is almost unnoticeable to the human eye. A difference between 3-6 is noticeable but acceptable. Anything 7 or higher is very noticeable and can easily see the difference between the colors.

Bourges Color Theory



Bourges theory on color was simple, clean and effective. She used 4 main colors; the warm colors red and yellow, and the cool colors blue and green. From clockwise it goes red, yellow, green, then blue. Within those 4 main colors it can be broken down to a total of 20 colors between the 4 main colors in her color wheel. Every color in her

wheel had a complement to each other. What it means for color to complement each other is to bring out the best of each color. For example the color that complements color number 1 best is number 11.

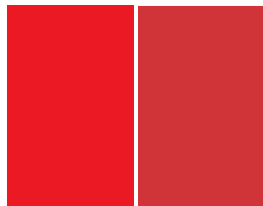
Skippy

Red

H:	2	L:	60
S:	90	a:	85
B:	94	b:	71
R:	240	C:	0
G:	31	M:	94
B:	24	Y:	90
Hx#	f01f18	K:	0

H:	1	L:	54
S:	74	a:	70
B:	82	b:	49
R:	208	C:	0
G:	56	M:	94
B:	55	Y:	90
Hx#	d03837	K:	0

H:		L:	
S:		a:	
B:		b:	
R:		C:	
G:		M:	
B:		Y:	
Hx#		K:	

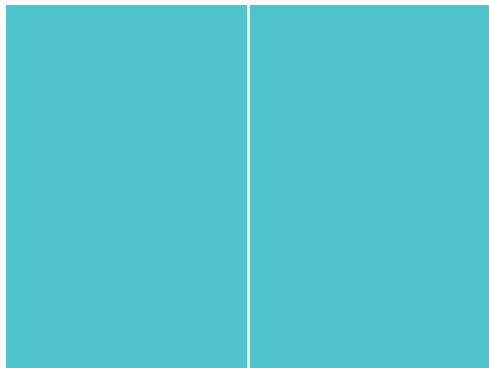


Green

H:	184	L:	70
S:	61	a:	-52
B:	80	b:	-19
R:	80	C:	78
G:	196	M:	0
B:	204	Y:	19
Hx#	50c4cc	K:	0

H:	187	L:	67
S:	59	a:	-46
B:	77	b:	-21
R:	81	C:	78
G:	183	M:	0
B:	196	Y:	18
Hx#	51b7c4	K:	0

H:		L:	
S:		a:	
B:		b:	
R:		C:	
G:		M:	
B:		Y:	
Hx#		K:	

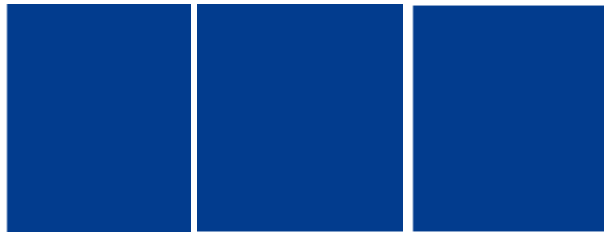


Blue

H:	215	L:	25
S:	99	a:	10
B:	56	b:	-56
R:	2	C:	100
G:	60	M:	80
B:	142	Y:	8
Hx#	023c8e	K:	4

H:	224	L:	100
S:	72	a:	9
B:	54	b:	-49
R:	39	C:	100
G:	66	M:	80
B:	139	Y:	7
Hx#	27428b	K:	4

H:	223	L:	24
S:	83	a:	14
B:	54	b:	-55
R:	23	C:	100
G:	56	M:	80
B:	137	Y:	0
Hx#	173889	K:	11



Metrocard

Blue

H:	206	L:	40
S:	99	a:	-9
B:	70	b:	-54
R:	1	C:	100
G:	101	M:	50
B:	179	Y:	2
Hx#	0165b3	K:	0

H:	213	L:	42
S:	73	a:	-8
B:	68	b:	-48
R:	47	C:	100
G:	105	M:	50
B:	174	Y:	2
Hx#	2f69ae	K:	0

H:	213	L:	40
S:	76	a:	-7
B:	68	b:	-50
R:	41	C:	100
G:	101	M:	50
B:	173	Y:	0
Hx#	2965ad	K:	2



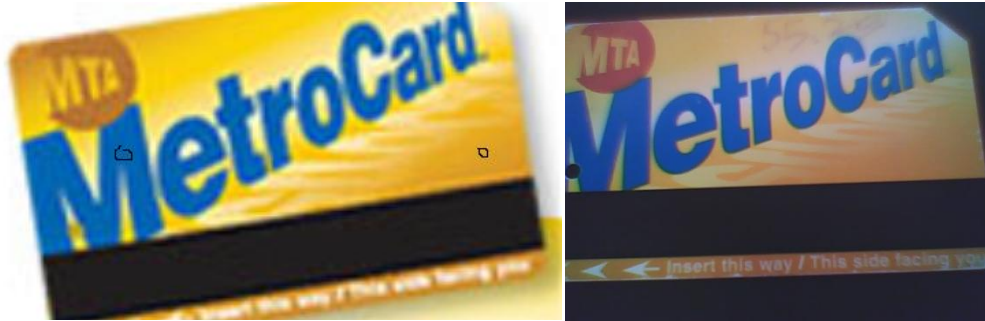
yellow

H:	42	L:	76
S:	83	a:	21
B:	89	b:	79
R:	228	C:	2
G:	170	M:	29
B:	38	Y:	100
Hx#	E4aa26	K:	0

H:	39	L:	77
S:	71	a:	20
B:	89	b:	68
R:	228	C:	2
G:	172	M:	29
B:	66	Y:	100
Hx#	e4ac42	K:	0

H:	39	L:	75
S:	73	a:	22
B:	89	b:	69
R:	226	C:	0
G:	167	M:	29
B:	61	Y:	100
Hx#	e2a73d	K:	2





Bourges Applied Creative Color Theory

Skippy

1) Red (**POSTER RED (05) (banner red)**): Dangerous - Exciting - Loud. Warns of impending danger; can have a negative response.

I can't agree with this color for the Skippy because I don't find it possessing anything of those poster red traits. I would say that Scarlet (04) (apple red) would be a better match for it because it shows signs of friendliness, desirable, and is able to grab attention with its intensity by being a peanut butter jar itself.

2) Green (**TEAL (15) (turtquoise)**): Primitive - Intuitive - Aesthetic. Vigorous, strong; spiritual, free, easy to like; stimulating; distinctive, less widely used.

For the green, it fits the ideal idea behind Skippy. It is very easy to use, it tastes good making it for people to like the product and peanut butter has been eaten for a long time. Though I would disagree about it being widely used.

3) Blue (**ULTRAMARINE (18) (royal blue)**): Fabulous - Compassionate - Stately. Melancholy while striving, embracing, and lively; shows emotion; conveys luxury and opulence; very versatile.

The blue in the Bourges color theory has truly explained it all. It is fabulous and makes you feel at home. The color surrounds the word creamy, giving it a lively view and makes the word creamy stand out alot.

Metrocard

- 1) Blue (**ULTRAMARINE (18) (royal blue)**): Fabulous - Compassionate - Stately. Melancholy while striving, embracing, and lively; shows emotion; conveys luxury and opulence; very versatile.

For the metrocard's blue, I would say it fits the description for this blue only halfway. I agree that it convey luxury and opulence especially with the rising prices on each time we use it to grab a train or bus.

- 2) Yellow (**GOLD (09) (warm yellow)**): Joyful - Sunny - Rich - Lavish. Warm, lush, associated with aging and uncertainty; can create anxiousness.

I would say that the metro system does cause a lot of uncertainty for people who have used it. Besides that I would say that sometimes it can help put us in a joyful mood when we use it because it does help us travel to different places where it would normally be hard for a car to go to.

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- 2) "Delta E - PrintWiki." *PrintWiki - the Free Encyclopedia of Print* . N.p., n.d. 22 May 2011.
<http://printwiki.org/Delta_E>.
- 3) Jones, Andrew Zimmerman. "Visible Light Spectrum." *Physics*. N.p., n.d. 22 May 2011.
<<http://physics.about.com/od/lightoptics/a/vislightspec.htm>>.
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- 5) "Rods & Cones." *RIT CIS - Center for Imaging Science*. N.p., n.d. 22 May 2011.
<http://www.cis.rit.edu/people/faculty/montag/vandplite/pages/chap_9/ch9p1.html>.
- 6) "What is Light?." *wiseGEEK: clear answers for common questions*. N.p., n.d. 22 May 2011.
<<http://www.wisegeek.com/what-is-light.htm>>.