

Name: _____

Date: _____

Hour: _____

The subtractive color model (CMYK)

1. You have three colors of clay: yellow, magenta, and cyan. Take a portion the size of your fingertip of both the cyan and the magenta clay. Mix them together. What color do you get?
2. Mix equal amounts of cyan and yellow. What color do you get?
3. Mix equal amounts of yellow and magenta. What color do you get?

The subtractive color model (CMYK)

	Cyan	Magenta	Yellow	Black
Absorbs	Red	Green	Blue	Red, Green, Blue
Reflects	Blue, Green	Blue, Red	Red, Green	None



Mix equal amounts of the three subtractive primary colors
(two colors at a time)



Thinking about what you observed

- a. Explain how the mixture of magenta and cyan makes its color when seen in white light.
- b. Explain how the mixture of cyan and yellow makes its color when seen in white light.
- c. Explain how the mixture of yellow and magenta makes its color when seen in white light.
- d. Why don't the mixed colors produce full red, green, or blue?
- e. What color would appear if you looked at a mixture of magenta and cyan under a lamp that only made blue light?
- f. Research how printers make colors. Do they use red, green, and blue (RGB) or cyan, magenta, yellow, and black (CMYK)?
- g. Research how computer monitors and televisions make colors. Do they use red, green, and blue (RGB) or cyan, magenta, yellow, and black (CMYK)? Explain why TV's and computer screens need to use one model or the other.