

# Color Pigments

## First Impressions – Teacher Set-Up

We use the Mr. Sketch markers.

In order to ensure different results I often seed various marker sets. Some marker set-ups will have two cyan and magenta markers, while others will have two blue and red markers, and others will have a full complement of markers including blue, cyan, magenta and red. *(These mixtures help ensure a range of colored circles so that students can compare and contrast the results).*

All students are asked to pick 3 color markers that might create the widest variety of colors when combined and to color in three overlapping circles (lightest colors first). If finished early students are asked whether or not these are primary colors, and how that might change things – students can fill in another set of three circles with a separate set of colors. At each table students are encouraged to share their results with others at their tables. What is perceived to be the best and worst set of color circles from each table are shared. The class discusses whether colors get darker or brighter, and if this indicates subtracting or adding light (with the definition given that all we see is light).

Historically the primary pigment colors were either

- Red Yellow & Blue or Red Yellow Blue and Green

Generally the widest range of colors as picked by the class matches with the current color theory:

Current Color theory (used by printers) uses:

- Cyan, Magenta, Yellow (and black)

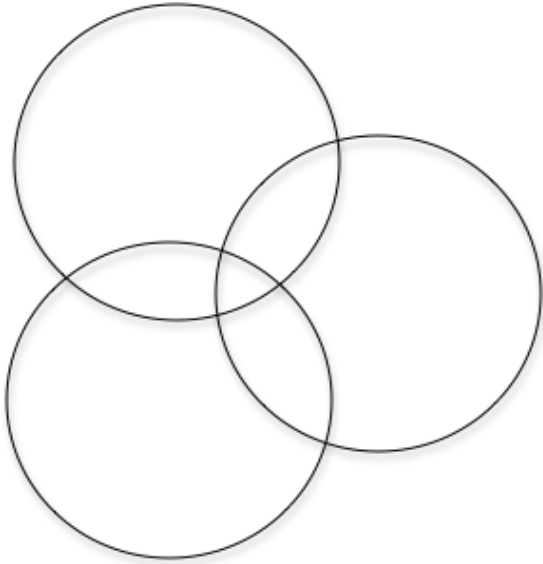
Neither system reproduces *\*all\** perceivable colors

Pigments subtract light (items become darker with more color pigments in paint).

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## First Impressions

What 3 colors of markers overlapping would give you the widest variety of color?  
Use one circle for each color (try coloring in the lighter colors first – it keeps the markers from being ruined as quickly).



If the colors you used above are NOT what you believe are the three primary colors,  
try coloring them now:

