

TABLE 2: Students explore the primary colors of paint and light using the science snack from Exploratorium (see Online Resources). They determine the rules of color addition for primary paint colors and for primary light colors then create a graphic to use as their “rules cheat sheet.”

White light [RGB] [= primary colors of light]	Color subtraction: Complementary colors get absorbed, or subtracted	Color addition: Primary colors of light [RGB] are mixed, or added, to make secondary colors of light [CMY]	Color subtraction: Primary colors of pigment [CMY] are mixed by subtraction to make secondary colors of pigment [RGB]
Red	Red / Cyan	Blue + Green = Cyan	Magenta + Yellow = Red is written as $RGB - G - B = R$ [magenta absorbs green, yellow absorbs blue]
Green	Green / Magenta	Red + Blue = Magenta	Cyan + Yellow = Green is written as $RGB - R - B = G$ [cyan absorbs red, yellow absorbs blue]
Blue	Blue / Yellow	Green + Red = Yellow	Magenta + Cyan = Blue is written as $RGB - G - R = \text{Blue}$ [magenta absorbs green, cyan absorbs red]