



About The Digital Color Guide

Digital media is changing how we teach color theory and color design methods. This visual guide introduces the **RGB/CMY digital color wheel** and related media arts color concepts in the context of art and design education. The guide is packed with over 100 images, videos, exercises, and examples of media arts and design applications by professional artists, designers, and students to inspire digital age learners to take their color skills to the next level!

The RGB/CMY digital color wheel is a teaching tool based on the science of human vision. It is designed to promote essential media arts digital color proficiency. In the classroom, the poster paves the way for exploring innovative approaches to teaching digital color theory in the context of media arts education. An overview of this guide is provided below:

1. Art and Science: The color concepts introduced in this guide are rooted in the science of human vision and digital color methods. They are presented in conjunction with the RGB/CMY digital color wheel. The guide includes practical lessons, tutorials, photographs, and a wealth of visual aids, including illustrations, diagrams, and infographics.

2. Detailed Descriptions: A multimodality approach for information delivery enhances a detailed introduction to the RGB/CMY digital color wheel. Together, text, diagrams, illustrations, and videos help visualize important concepts, such as color mixing formula, the RGB color cube, digital color spectrum, and HSB color planes.

3. Color Spectrum Expansion: the poster of the RGB/CMY digital color wheel is an essential visual aid to promote understanding of the color spectrum found in professional digital media applications, based on red, green, and blue color mixing. It offers a much broader color spectrum than traditional color wheels based on red, yellow, and blue color mixing. For instance, magenta is not included in conventional color wheels, such as Johannes Itten's 12-step color circle.

4. RGB, CMYK, and HSB Color Models: The most commonly used three-dimensional color systems of the digital age—RGB (red, green, and blue), CMYK (cyan, magenta, yellow, and black), and HSB (hue, saturation, and brightness)—come to life through infographics and computer animations. These color systems, and their derivatives, are the basis for the most widely used methods for generating and selecting colors on digital displays. A highly visual introduction to the essential concepts of these systems is provided and visually and compared with the structure of the RGB/CMY digital color wheel to promote digital color literacy.

6. Digital Color Mixing Tutorials: This guide includes ideas for immediate adaptation in lesson plans. They introduce how to mix red, green, and blue light sources via a digital color mixer to generate millions of colors on digital screens. Also, a tutorial for generating a digital color wheel from scratch is presented. Digital color mixing is one of the most essential digital color literacy concepts of the 21st century.