The Hickethier Color Mixing System

Experience the reinvented color wheel system co-developed by art teachers, Rock Paint Distributing, and Triarco Arts & Crafts.

Connect math skills in mixing color and developing a better understanding of color theory.

This color mixing technique allows for more effective use of class time and art materials, and will take the guesswork out of mixing and re-mixing paint.

The Hickethier Color Mixing System is available in Acrylic and Tempera through Triarco Arts & Crafts.

**ABOUT IT: Part One – Basic Color History**

**Additive Color – Science**

The Scientific Theory of Mixing Light

Traditional Primaries in Mixing Light are Green, Red, Blue

**Subtractive Color – Art**

Artistic Theory of Mixing Pigments

Traditional Pigment Primaries: Yellow, Red, Blue

Traditional Process Primaries: Yellow, Magenta, Cyan

Using the Process Primaries provides more color mixing accuracy. Alfred Hickethier figured this out!

**ABOUT IT: Part Two – The Hickethier Color Chart – The reasons why….**

The Hickethier Color chart provides the following key assets:

**Confidence** • **Economy** • **Efficiency/Time Saving** • **Accuracy** • **Ratio** • **Proportion** • **Harmony** • **Pattern**

Let's take a look at the advantages of the chart and see how it works:

**Confidence**
If students understand ratio and proportion when mixing paints, then they will be able to be more independent when mixing colors.

**Economy**
You can save money with your budget by only ordering the colors you need:

- Yellow  •  Magenta  •  Cyan  •  Black  •  White

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**Efficiency/Time Saving**
Saves students and teachers time and is a very effective way to provide students with a sense of ownership and control over their color mixing. Who doesn’t want that?

**Accuracy**
Students are more satisfied with their results because they can easily recreate the colors they want when they need more paint.

**Ratio**
Students will understand ratio when mixing with this system. Ratio is a noun that means: the quantitative relation between two amounts showing the number of times one value contains, or is contained within, the other. *We also use the words “recipe” and “formula.”*

**Proportion**
Students will learn how to adjust the amounts of each part of the color mixing formula so that the parts have a suitable relationship to each other. Proportion is a noun that means: a part, share, or number considered in comparative relation to a whole.

**Harmony/Unity**
The Hickethier chart provides a sense of unity and harmony to artwork – it is easy to stay within a color palette or limited color scheme.

**Patterns**
The Hickethier chart provides some pretty cool interrelationships of colors on the chart – *See the next handout!*

### ABOUT IT: Part Three – The Hickethier Color Chart – How it works:

**Vocabulary:** Complimentary • Ratio • Proportion • Layer • Formula/Recipe • X/Y Axis

**Questions:**
- What do the different numbers mean?
- Which layer has no yellow?
- Which layer has no white?
- How do you find a color’s compliment? (32 compliments in total! – 999 – # of color formula number)
- Try using an X/Y Axis like on a grid in math
- What does the + w mean? (T = twice as much white or H = half as much white; add up the three digit number and you’ll see)
- About how many squares out of 64 need white? (About ½ or 27 need white mixed in!)
- How many mixtures require two times the paint amount in white? (8 in total)
- How many mixtures require ½ the paint amount in white or a little white added? (18 in total)

**Understanding the interrelationships of colors on the chart and the chart.**

**X Letter** Pattern, **H Letter** Pattern, and an **I Letter** Pattern indicate complementary colors - to check use the 999 – color square code #. There are at least three different ways to find compliments – *vertically, diagonally, and horizontally*; opposite squares are compliments!

Or use math to determine your complimentary colors (999 – color code = complimentary color). If your color code is 609, you subtract it from 999 and it equals your complimentary color of 390.

**Quick Lesson Ideas:**
- Create a personal palette – find the color(s) you like best on the chart, write down the “code,” try mixing the color for accuracy.
- Name 3 or 4 colors a friend might find most in your clothes closet at home.
- What color car would you want?
- Pick a favorite cartoon and redo the color scheme.
- Mix a color and mix its complimentary color.

**Lesson Plan Credits:**
- **Johanna Peterson** – Eau Claire Public Schools
- **Terry Clayton** – Triarco Arts & Crafts
- **John Molina** – Triarco Arts & Crafts
- **Debra West** – Tomah Public Schools
- **Bill Benson** (Retired) – University of Wisconsin – Eau Claire