

Kerpoof Lesson Plan: The Color Wheel

Title: The Color Wheel

Topic(s): Art, art history, color theory

Materials and Resources: Kerpoof's Make a Drawing, Vocabulary Key, Student Worksheet, Selected Artwork List, Additional Resources, Large chart/projection of a color wheel

Grades: 4-8

Objectives: Students will learn the basic vocabulary of color theory, create their own color wheel in Make a Drawing, and observe/discuss the use of color in famous paintings.

Standards (CA):

- 1.2 Perceive and discuss differences in mood created by warm and cool colors.
- 2.2 Mix secondary colors from primary colors and describe the process.
- 2.5 Use symmetry to create visual balance.
- 3.1 Explain how artists use their work to share experiences or communicate ideas.
- 4.4 Use appropriate vocabulary of art to describe the successful use of an element of art in an artwork.
- 5.3 Identify and sort pictures into categories according to the elements of art emphasized in the works

Vocabulary:

Color Wheel — a chart that shows the relationship of different colors to each other.

Hue — another word for color

Primary colors — colors from which all other colors are made (red, blue, and yellow)

Secondary colors — colors that are created from equal amounts of a pair of primary colors (green, orange, violet)

Tertiary colors — colors made from equal amounts of a pair of primary and secondary colors (red-violet, blue-violet, blue-green, yellow-green, yellow-orange, red-orange)

Analogous colors — hues that are next to each other on the color wheel

Complementary colors — the colors opposite to each other on the color wheel: (red & green, blue & orange, yellow & violet) When placed next to each other, complementary colors make each other appear brighter.

Tint— a color plus white, also called “pastels”

Shade — a color plus black

Monochromatic — having one color (or using different tints and shades of the same color in an artwork)

Polychromatic — having more than one color

Achromatic — free of color

Cool Colors — the hues on the green/blue/violet side of the color wheel

Warm Colors — the hues on the red/orange/yellow side of the color wheel

Symmetry — similarity on both sides of a dividing line

Composition — the arrangement of elements (including color!) in an artwork

Instruction:

1. Pass out or project the Color Wheel Vocabulary Key and Student Worksheet
2. Direct the students' attention to the large color wheel on the wall. Explain that the color wheel is a chart of colors of the visible spectrum of light that is used to show how colors relate to one another. Briefly introduce the history of the color wheel: Sir Isaac Newton first represented the relationship of colors to one another in the form of a circle after he observed a beam of sunlight passing through a prism, producing a rainbow. Ask:

- What do you think the rainbow has to do with the color wheel?/How did Isaac Newton make the color wheel out of a rainbow? [By joining the two ends of the visible spectrum; i.e. red and violet, to create a circle.]

One hundred years later, Johann Wolfgang von Goethe, a German writer and scientist, studied how colors make us feel. He discovered that blue evoked quiet moods and that red evoked cheerfulness.

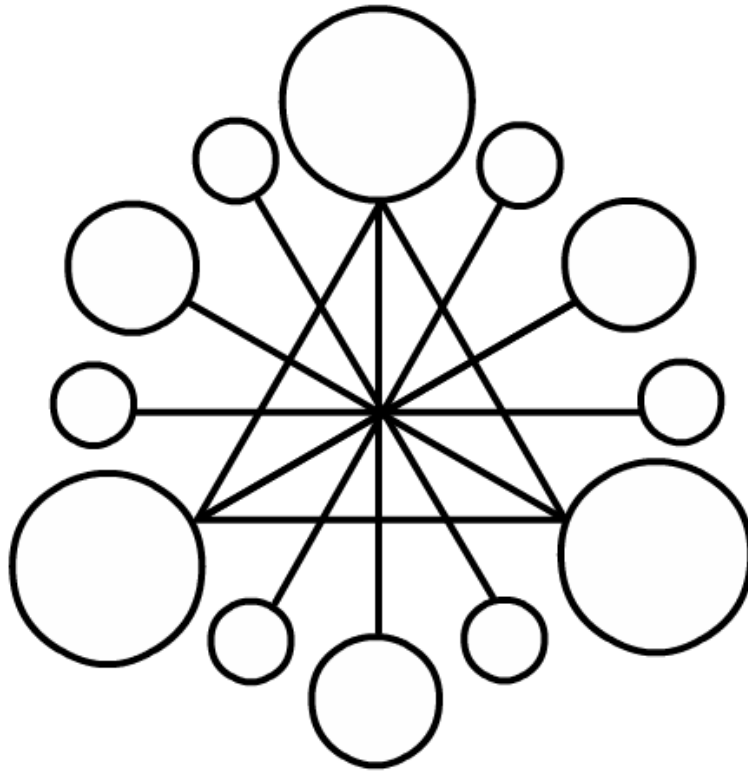
3. Have students take turns reading the vocabulary words and definitions aloud. Point out examples on the large chart/projection of the color wheel, when appropriate, or ask students to point them out. Ask:
 - Can you think of an example of complementary colors being used together? [School/team colors, i.e. Minnesota Vikings, Denver Broncos, etc.; Christmas colors]
 - How can we define our school colors? [primary, secondary, etc.] How do they relate to each other on the wheel? [complementary, analogous, etc.]
 - Who is wearing a monochromatic shirt today? How about polychromatic?
 - Everyone who is wearing mostly warm colors, raise your hands. Now those who are wearing mostly cool colors.
 - Is anyone wearing a shirt that uses complementary or analogous colors?

Have students label and shade in the colors on their sample wheel at the top of the Vocabulary Key. Have them put a 1 by the primary colors, a 2 by the secondary colors, and a 3 by the tertiary colors (if you're using copies; otherwise ask for volunteers to identify color names and 1s, 2s, and 3s).

4. Optional: Pass around red construction paper squares and tell students to turn their vocabulary keys over to the blank side. Have them stare at the red construction paper for thirty seconds and then look at the white paper.
 - What color do they see? [green]
 - What relation is that color to red on the color wheel? [complimentary]
5. As a homework assignment for lab or in class, have students log in to Kerpoof and create their own color wheel in Make a Drawing. Have them follow the Student Worksheet (feel free to add elements of your own to the activity) and encourage them to get creative with the design. Pictures of rose windows or mandalas might spark their creativity (see Additional Resources).
6. When the class reconvenes, discuss their different answers to the questions on the Student Worksheet. Project or hand out copies of the artworks on the Selected Artwork List. Have students discuss the composition and use of color in the pictures. Ask:
 - Can you see any complementary colors? Analogous colors? Tints/shades?
 - How do the colors in the painting influence your feelings about the subject?
 - Are the colors used in this painting true-to-life? Why or why not?
 - What do you think the artist thought about his/her subject, based on the colors he/she used? What was he/she trying to communicate? Etc.

Optional Homework assignment: Assign each student a painting from the selected artwork list (ones that weren't already discussed). Have them write a one-page essay about the use of color in the painting. OR have them create their own freehand art in Make a Drawing, and ask them to write a one-page essay about how they decided to use color.

The Color Wheel: Vocabulary Key



Color Wheel — a chart that shows the relationship of different colors to each other.

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The Color Wheel: Student Worksheet

Name: _____

1. Log on to Kerpoof. Enter the Make a Drawing activity.
2. Take a look at the color palette to the right. You'll see ten different colors, and a larger box at the bottom that shows the color of your pen.
 - Identify the primary colors
 - Identify the secondary colors
3. Make sure that the teardrop-shaped icon at lower right is shaded green. (This allows you to mix colors together in the palette.)
4. Click the white oval and hold down your mouse button. See how your pen color gradually changes to white? Now click and hold down the red oval. When you have a full red:
 - Click on the black oval. What happened? You made a _____ of red.
 - Click on the white oval. You made a _____ of red.
 - Take some time to play with the different hues, adding black and white to each one.
5. Now it's time to make a secondary color. Make your pen red again. Then, click on the blue oval a few times.
 - Which secondary color did you make? _____
 - How many times did you have to click? _____
 - Now take some time to explore the different combinations of primary hues. How do you think your color mixing experience would be different if you were working with real paint? _____

6. Create your own color wheel on the digital canvas. Be sure to put the primary, secondary, and tertiary colors in their correct places, and try to make the wheel as symmetrical as you can. Otherwise, you are free to make up your own style, using any shapes or designs you like. Look at pictures of rose windows or mandalas for inspiration. Get creative!
7. Now let's think about how colors make us feel, and how they help us communicate.
 - What is your favorite color? _____
 - Is your favorite color warm or cool? _____
 - What three adjectives best describe your favorite color?
_____, _____, _____
 - Pretend you're about to paint a picture using a monochromatic color scheme (just different tints and shades of your favorite color). What would you paint, and why? What feelings or ideas would you use your favorite color to communicate?

 - If you have time (after you've saved or printed your color wheel), create the painting you've described and share it on Kerpoof!

The Color Wheel: Selected Artworks

Helen Frankenthaler
Bay Side (1967)
Acrylic on canvas.

Hans Hofmann
The Golden Wall (1961)
Oil on canvas

Claude Monet
Haystack at Sunset Near Giverny (1891)
Oil on canvas

Claude Monet
Impression: Sunrise (1872)
Oil on canvas

Edvard Munch
The Scream (1893)
Casein on paper

Emil Nolde
Still Life, Tulips (1930)
Watercolor on paper

Judy Pfaff
Voodoo (1981)
Contact paper collage on mylar

Pablo Picasso
The Old Guitarist (1903)
Oil on canvas

Mark Rothko
Blue, Orange, Red (1961)
Oil on canvas

Vincent van Gogh
Starry Night (1889)
Oil on canvas

***Be sure to check out our Starry Night-based Lesson Plan on Impressionist Art!**

Vincent van Gogh
Self-Portrait (Sept. 1889)
Oil on canvas

Vincent van Gogh
Sunflowers (1888)
Oil on canvas

Marc Chagall
The Magic Flute (1966)

Marc Chagall
Blumenstilleben St. Jean Cap Ferrat (1956)

Henri de Toulouse-Lautrec
At the Moulin Rouge (1892)
Oil on canvas

Henri Matisse
Goldfish (1912)
Oil on canvas

Henri Matisse
Woman with a Hat (1905)
Oil on canvas

Henri Matisse
A Glimpse of Notre-Dame in the Late Afternoon (1902)
Oil on paper mounted on canvas

Gwen Shackleton
Cirebon Sawah (2007)
Acrylic on canvas

Paul Gauguin
Where do we come from? What are we? Where are we going? (1897)
Oil on canvas

The Color Wheel: Additional Resources

On color theory:

- http://en.wikipedia.org/wiki/Color_wheel
- http://en.wikipedia.org/wiki/Color_theory
- <http://www.huevaluechroma.com/index.php>
- http://www.gutenberg-e.org/lowengard/A_Chap03.html

On artwork and color:

- <http://www.scribd.com/doc/501788/Andrew-Loomis-Eye-Of-The-Painter>
- <http://uwp.duke.edu/wstudio/documents/painting.pdf>
- http://www.curriculumonline.ie/en/Primary_School_Curriculum/Arts_Education/Visual_Arts/Visual_Arts_Teacher_Guidelines/Approaches_and_methodologies/Paint_and_colour/

Examples of mandalas and rose windows:

- http://en.wikipedia.org/wiki/Rose_window
- <http://en.wikipedia.org/wiki/Mandala>

Further reading:

- <http://www.amazon.com/Art-Books-for-Kids/lm/3ORDGRFDO62AR>
- <http://www.amazon.com/Childrens-Books-About-Art/lm/13VDRNR18QKX1>

Example of a color wheel on Kerpoof's Make a Drawing, including tints and shades:

<http://www.kerpoof.com/#/view?s=g507q727f455-565df4-x>

Scenes from the movie *Amélie* are also good examples of color theory in use:

- <http://leavemethewhite.com/caps/displayimage.php?album=109&pos=167>
- <http://leavemethewhite.com/caps/displayimage.php?album=109&pos=182>

More ideas:

The Color Wheel lesson plan can be tied in with many parts of the curriculum!

Have students investigate:

- colors in the plant and animal kingdom
- the science of light
- the eye
- mathematics (symmetry and coordinate systems)
- cultural uses of color
- literary uses of color