1-2 YEARS IN PROJECT

Discovering Color

4-H Line and Design Project

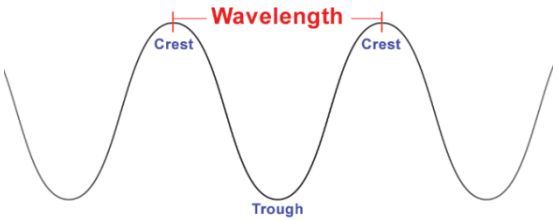
Part of the Family and Consumer Sciences 4-H Project Series

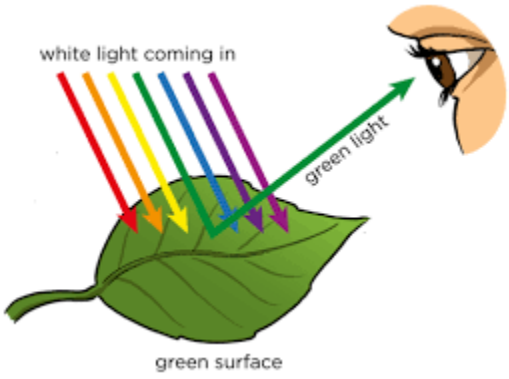
Project Outcomes: Recognize a color wheel.
Define basic color terms.
Project Indicator: Complete the experiments within the activity.

Color, it's around us every day. But do we know what it is? Color is a big part of our life because without it the world would be very bland. So, what is color exactly? Color is light.

Light-

To learn about color, you must first understand what light is. **Light** is a wave, and whenever its wavelengths change so do the colors. A **wavelength** is the distance between two high points in a wave, which creates a spectrum of colors that we call the rainbow. We only see the rainbow when the colors of the light are





separated. The light from the sun and from the lightbulbs in your room is called **white light.** All the colors and their wavelengths come together and make up white light.

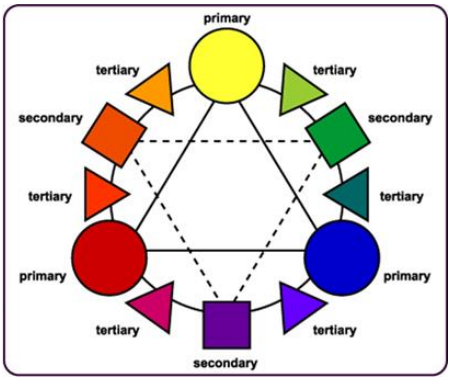
Light Creating Color

Most of the white light that comes from places like the sun, or your lamp, or your flashlight is absorbed by the objects it hits. When there is one color, or one wave with a different wavelength, that cannot be absorbed by the object it bounces off and this is the color our eyes see.
For example, if we were to shine a flashlight, white light, onto a leaf all the colors in the white light would be absorbed except for the green light. This green light would bounce off the leaf and it is what our eye would see.

The Color Wheel

Artists and designers are masters of color. They have a way of organizing the colors into groups to help them use them in their work better. The use the color wheel to do this.

There are three groups of colors that make up the color wheel: Primary colors, Secondary colors, and the Tertiary colors.



Primary colors: Red, Yellow, Blue
-You cannot mix any two colors to create a primary color.

Secondary colors: Green, Orange, Purple
-When you mix any two primary colors you create a secondary color.

Tertiary colors: Green-yellow, Yellow-orange, Orange-red, Red-violet, Blue-violet, Blue-green
-When you mix a primary and a secondary you create a tertiary color.

When you look at colors you may notice that some colors are bright and clear and others may be muted or dulled. A color (hue) can look different depending on its value and intensity. So what does this mean? In order to understand this look at the following terms.

Experiment 1: Create Your Own Color Wheel

Materials needed:
-Watercolor paints or other type paints – Red, Yellow, Blue
-Paint brushes
-Thick paper or canvas

Try to create your own color wheel using only the primary colors to create the secondary and the tertiary colors. Follow the guidelines listed above that explains how to create the secondary and tertiary colors. Have fun mixing the colors and see what you can create. After you have experimented on paper, use the canvas to create a picture using at least one Primary, one Secondary and one Tertiary color.

COLOR TERMS:

Color can look different depending on its value and intensity. So what does this mean? Here are some terms that will help you know more about the colors you see around you.

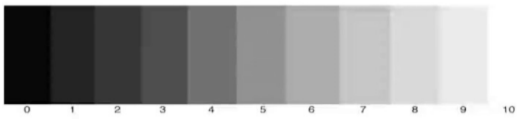
Hue is the color name in its purest form—examples include red, blue, yellow, violet and so on.

Intensity is the brightness or dullness of a color. Some hues are more intense than others. To lessen the brightness of a color, you add some of the complement color.

Value is the lightness or darkness of a color. A light value is called a "tint" and is created by adding white to a color. An example is pink which is a tint of red. A dark value is called a "shade" and is created by adding black to a color. An example is burgundy which is a shade of red.

Below you can see what we call the value scale.
It consists of black, white, and a range of grays. It also can be a color and the lights and darks of that color.
Examine the landscape and locate the tints of blue and the shades of blue.

VALUE SCALE



EXPERIMENT 2: **Creating Tints and Shades of Colors**

Materials needed:
-Watercolor paints or other type paints – Red, Blue, Yellow, White and Black
-Paint brushes
-Thick Paper (or canvas)

Now that you have learned about value in color, it's time to experiment. Create an abstract design using a primary color and the tints and shades of that color. Remember to add white to the color to create a tint and black to create a shade. You can also mix two primaries and make a secondary color, then do the same with the secondary color. Experiment with the amount of white or black that you add to the color.

TEST YOUR KNOWLEDGE

Now that you have learned about color, let's see what you remember by completing this quiz. Try not to look for the answers.

1.What is color?
- a. Paint
- b. A cell
- c. Light

2.What is light?
- a. A wave
- b. A glow
- c. Molecular

3.What colors make up white light?
- a. Red, yellow, and blue
- b. Purple and green
- c. All of the colors

4.How do you make a primary color?
- a. You can't make a primary color
- b. By mixing two secondary colors
- c. By mixing all of the colors

5.What kind of color do you make when you mix two primary colors together?
- a. Another primary
- b. A secondary color
- c. A tertiary color

6.What do you mix together to make a tertiary color?
- a. Two secondary colors
- b. A secondary and a primary color
- c. Two primary colors

Answers to Quiz: 1. C; 2. A; 3. C; 4. A; 5. B; 6. B

By: Bethany Walsh and Jessica Rogers, University of Tennessee at Martin Art Education Students, and Sue Byrd, Professor Emeritus, UT Martin